

VOLUNTARY REMEDIATION PROGRAM COMPLIANCE STATUS REPORT

32.91-ACRE CSXT PARCEL HUTCHINSON ISLAND SAVANNAH, CHATHAM COUNTY, GEORGIA HSI SITE NO. 10101

Prepared for Submission to:

Georgia Department of Natural Resources Hazardous Waste Management Branch Suite 1054, East Tower 2 Martin Luther King Jr. Drive SE Atlanta, Georgia 30334

Prepared by:

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August 1, 2016

CSX-RPI Project No. 9415575 Amec Foster Wheeler Project No. 6-4300-5247



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Subject:

Voluntary Remediation Program - Compliance Status Report

32.91-ACRE CSXT PARCEL

Hutchinson Island

Savannah, Chatham County, Georgia

HSI Site No. 10101

Amec Foster Wheeler Project No. 6-4300-5247

Dear Mr. Williams:

On behalf of CSX Real Property, Inc. (CSX-RPI), Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) respectfully submits this Voluntary Remediation Plan Compliance Status Report (CSR) for the subject property in the Georgia Voluntary Remediation Program (VRP). This CSR documents the delineation of soil conditions to the appropriate risk reduction standards at the VRP property and documents the current status of groundwater conditions at the Hazardous Site Inventory (HSI) site which encompasses the VRP property.

This CSR is submitted in lieu of the Seventh Semi-Annual Progress Report to begin the process of removing the subject site from the HSI. It is our intent to suspend further activities under the VRP pending EPD's decision regarding removal of the subject property from the HSI. Please contact Chuck Ferry at 404-873-4761 with any questions you may have regarding this submittal.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Stephen R. Foley, P.G.

Senior Geologist

Senior Principal Engineer

CC:

Mr. Coley Campbell, P.E., CSX Real Property, Inc. Mr. Matthew Grostick, P.E., Amec Foster Wheeler

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CERTIFICATION STATEMENT

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

Based on my review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous site Response, Rule 391-3-19-.07, I have determined that the site is in compliance with Type 3 or 4 risk reduction criteria for all constituents in soil and with Type 4 with controls risk reduction criteria for all constituents in groundwater.

Mr. Coley Campbell

CSX-RPI

Date

GROUNDWATER SCIENTIST STATEMENT

I certify that I am a qualified groundwater scientist who has received a baccalaureate or postgraduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared in conjunction with others working under my direction.

EN ROBERT

No. 0010

Mr. Stephen R. Foley, P.G. Georgia Registration No. 1057

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1.0 BACKGROUND

This Compliance Status Report (CSR) has been prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) for the CSXT ("VRP parcel or property) property located on Hutchinson Island in Savannah, Georgia and for the following surrounding properties which comprise the HSI site ("Site"). See **Figure 1.**

The subject property is owned by CSX-RPI and is comprised of a 32.91-acre parcel. The property occupies Chatham County Tax Parcel 1-0436-01-017 and currently consists of vacant land (see **Figure 2**).

The property was previously occupied by a bulk petroleum and chemical storage facility between approximately 1920 and 1992. CSX-RPI has engaged in significant soil and groundwater remediation at the property to address soils impacted with petroleum constituents and metals as described in previous submittals to EPD and has successfully completed implementation of the EPD-approved Modified Corrective Action Plan (MCAP) for impacted soils on the VRP parcel. Compliance with Type 3 risk reduction standards (RRS) for soil was certified in the 2008 Revised Compliance Status Report (CSR). The property also underwent groundwater remediation from 2008 through 2011 as described in the MCAP. The primary constituent of concern (COC) in groundwater is ammonia. Low levels of benzene, naphthalene, arsenic and lead remain in groundwater in limited to localized areas on the property.

1.1 SITE HISTORY

As described in the January 2003 Revised CSR (BBL 2003a), Hutchinson Island was used for deposition of dredge spoils from the widening and deepening of the Savannah River from the mid-1800s until approximately 1982.

From 1920 to 1992, CSX or its predecessors leased the property to companies that operated bulk storage facilities. The property was leased to Gulf Refining Company from 1920 to 1973. Gulf Refining Company used the property as a bulk petroleum storage and transfer facility. In 1973, Charter International Oil Company (Charter) assumed the lease and continued to use the property as a bulk petroleum storage facility. While Charter operated at the property, it also stored other chemicals at the facility, primarily liquid fertilizer. Charter's lease ended in 1982, when Powell Duffryn Terminals, Inc. began operating the facility. Powell Duffryn continued to store petroleum products in smaller quantities, but primarily operated the facility as bulk storage for chemicals. Materials stored by Powell Duffryn reportedly included pulping liquors, sulfuric

acid, caustic soda, zeolite slurry, alum, latex and fatty acid. When the lease to Powell Duffryn ended in 1992, all tanks, buildings, rails and other aboveground facilities were removed.

At its peak, the facility's storage capacity included 24 circular aboveground petroleum storage tanks ranging in size from 84,000 gallons to 2.3 million gallons. Six additional tanks, located on the southeastern corner of the property, were installed during Powell Duffryn's operation of the facility. Reportedly, there were also five (5) rectangular storage tanks located at the property. However, their location on the property has not been documented.

1.2 SUMMARY OF PAST RELEASES

Releases that occurred during the operating history of the former bulk storage facility include: disposal of tank bottoms to a settling pit located at the northern end of the property, deposition of tank bottoms on the ground surface adjacent to the tanks across the property; a release of approximately one to two tons of liquid fertilizer that reportedly occurred sometime between 1972 and 1982. In addition, the property was used for the historical deposition of dredge spoils generated during the deepening of the Savannah River beginning in the mid-1800s.

The source of detectable metals concentrations in soil and groundwater at the property has not been attributed to a specific release. The most likely source for metals at the property is the deposition of dredge spoils containing elevated metals concentrations.

Specific details regarding these releases as well as descriptions of past investigations were documented in the January 2003 Revised CSR (BBL 2003a) and subsequent Notice of Deficiency (NOD) Response Letters (BBL 2004a, BBL 2005a).

1.3 PREVIOUS ASSESSMENTS

Previous environmental assessments were performed at the VRP parcel and at surrounding properties which comprise the HSI site between 1988 and 2015.

Several investigations were conducted at the property between 1988 and 1994, prior to inclusion of the site on the HSI. The Hazardous Site Response Act (HSRA) was enacted by the GA-EPD in 1994, and the site was placed on the HSI in 1997. Orders were issued under HSRA to CSX Transportation, Inc., the extant property owner, and two prior operators on the property, Chevron (as successor to Gulf) and Powell Duffryn Terminals, Inc. Investigations were performed in 1997, 2002, and 2004 to support preparation of a CSR. Details on these

investigations are found in the January 2003 Revised CSR (BBL 2003a) and subsequent Notice of Deficiency (NOD) Response Letters (BBL 2004a, BBL 2005a).

1.3.1 VRP Implementation

Amec Foster Wheeler prepared a VRP application for the CSXT property which was approved by EPD in a letter dated July 31, 2012. Under the VRP, the following activities have been conducted at the site:

- 1. Semi-annual sampling and testing of groundwater from selected wells on the property and on surrounding site properties in December 2013, June 2014, December 2014, June 2015 and November 2015;
- 2. Installation and sampling of eight (8) additional off-property wells to further delineate the plume and to aid in groundwater modeling efforts;
- 3. Fate and transport model calculations to predict future plume migration and the potential for impact to downgradient receptors;
- 4. Semi-annual sampling and testing of surface water from the nearby drainage canal;
- 5. Completion of a Screening Level Ecological Risk Assessment (SLERA) to investigate potential ecological risks associated with discharged to the drainage canal;
- 6. Preparation of six (6) Semi-Annual Progress Reports (SAPRs) documenting activities completed during each period; and
- 7. Preparation of this Final CSR following the November 2015 sampling event.

2.0 PURPOSE

This CSR has been prepared on behalf of CSXT RPI, for the site located in Savannah, Chatham County, Georgia. A Voluntary Investigation and Remediation Plan (VIRP) and VRP Application were submitted on June 7, 2012 and EPD accepted the property into the VRP by letter dated July 31, 2012. Since that time, the VIRP was implemented and the work was summarized in six semi-annual progress reports submitted to EPD from January 2013 through January 2016. CSXT is submitting the required Final CSR documenting compliance with the provisions, purposes, standards, and policies of the VRP and certifying compliance with applicable cleanup standards.

3.0 CONCEPTUAL SITE MODEL

Groundwater assessment activities on site have been conducted by Amec Foster Wheeler and others between 1988 and 2015. A total of 62 groundwater monitoring wells and six piezometers have been installed on site, which includes the CSXT parcel and the immediately surrounding area. Most of the wells and piezometers have been destroyed or closed. Those utilized during the VRP sampling events are illustrated on **Figures 5**.

3.1 CHARACTERIZATION OF SUBSURFACE GEOLOGY

The geology and hydrogeology of the site discussed below are based on the data obtained and review of published literature.

The subject HSI site is located within the Coastal Plain Geologic Region. Numerous soil borings have been drilled on the site during the course of the various investigations and remedial activities. The borings encountered soils typically consisting of a surficial layer of fine to medium sands that extends to a depth of 5-10 feet bgs. These surficial soils represent dredge spoils from the Savannah River that were deposited on Hutchinson Island beginning in the mid 1800s. In some areas, localized zones of coarse sand and fine gravel are present within the upper sand layer. Underlying the upper sand unit is a gray, lignitic clay which increasing stiffness with depth as the organic content decreases. This clay unit underlying the layer of dredge spoils is interpreted to be a former marsh area and is approximately 40 feet thick. Underlying the clay unit is a well sorted quartz sand that grades from fine to very coarse just below the clay layer. **Figures 6-8** depict cross sections of the subsurface conditions.

3.2 CHARACTERIZATION OF HYDROGEOLOGY

In the Coastal Plain Geologic Region, groundwater may occur under either unconfined (water table) or confined conditions. The uppermost water-bearing unit on site consists primarily of the dredged fine to medium sands in the upper ten feet. This sand unit overlies a thick clay rich confining layer located above a confined sand aquifer unit. Recharge to the water table aquifer occurs primarily through precipitation infiltrating the upper soils and percolating downward, under the influence of gravity, to the groundwater table. Typically, the water table is not a level surface, but a subdued reflection of the land surface. Depth to the water table is variable, being dependent on many factors which include: the amount of rainfall, the permeability of the soil and the amount of groundwater being pumped in the area. The depth to water across the site in wells that are not being pumped ranges between approximately 0 and 2 feet bgs. In areas

where the shallow sand unit is present, it forms a shallow water-bearing unit that is relatively permeable. The clay unit below the sand is also saturated and displays some permeability as evidenced by the recharge of monitoring wells screened in the upper portion of the clay unit. Permeability decreases significantly below a depth of approximately 5-10 feet, at which point the clay layer is encountered.

3.2.1 Surface Water Drainage

Surface water drainage in the surrounding area is controlled by small drainage ditches near the periphery of the property and a larger drainage canal located north of the property on the adjacent SEDA Parcel B. The canal is tidally influenced and varies from virtually filled at high tide to nearly dry at low tide. In general, the surface drainage of the site is to the north toward the drainage canal although in the southern portion of the site drainage appears to be toward the Savannah River.

3.2.2 Aquifer

Groundwater in the Coastal Plain Physiographic Province typically consists of an unconfined surficial aquifer, underlain by an upper confining unit and the Floridan aquifer. Locally, the surficial aquifer, is not typically used for potable drinking water purposes, and consists of Miocene and Pliocene to Recent undifferentiated sands, which are mixed and/or interbedded with clay, silt, shells or river gravel and extends to depths of approximately 90 to 100 feet below land surface. This aquifer is underlain by a confining unit, which ranges in thickness from 200 to 400 feet and consists primarily of clay.

The Floridan aquifer system is composed of three aquifers that include the Upper, Middle and Lower Floridan aquifers. The Upper Floridan aquifer is well documented as it provides an abundant supply of potable water for the area. The underlying Upper Floridan aquifer is recorded to be nearly 400 feet thick and ranges from approximately 300 to 800 feet below land surface in this area. Water supply wells are reported to be screened primarily in this aquifer. The Middle and Lower Floridan aquifers underlie the Upper Floridan aquifer. These aquifers are also used as secondary potable water sources to the Upper Floridan aquifer.

The well elevations were surveyed and water levels in each well were measured during each sampling event. Measured groundwater elevations from the most recent events following equilibration of the water table after the groundwater remediation system was shut down indicate the presence of a small drainage divide in the central portion of the site. Groundwater

flow in the northern portion of the site is toward the canal while in the southern portion of the site it is to the south or southeast, toward the river.

3.3 HYDRAULIC CONDUCTIVITY

In-situ hydraulic conductivity tests were performed by AES in 1997 in monitoring wells MW-1, PDMW-1T, PDMW-9T, PDMW-11P, PDMW-15T and PDMW-28D. The tests were performed using the slug-test procedures described by Bouwer and Rice (1976, 1989). In the slug-test method, hydraulic conductivity is estimated from the rate of rise of fall of the groundwater level in a well after a solid of know volume, or "slug" is inserted or removed from well. The static water levels in each monitoring well were measured and recorded prior to the tests. For the "slug-in" test, the water level was raised by inserting the slug and the change in water level was measured. Water level measurements were taken over regular intervals the next 15 minutes to 60 minutes to monitor recovery of the water table. For the "slug-out" test, the water level was lowered by removing the slug and monitoring the water level recovery as described above.

Subsequent to the completion of the test, the data were analyzed using the Bouwer and Rice (1976, 1989) method. The results of the "slug-in" and "slug-out" tests were averaged to derive in-situ hydraulic conductivity values for the sand units within the shallow water bearing zone. Based on the slug-test data, the average hydraulic conductivity of these wells, was 3.5 x 10⁻³ cm/sec.

3.3.1 Groundwater Flow

A summary of the well depths, screened intervals, depth to groundwater and water table elevations is presented in Table 4. A potentiometric surface map of the shallow aquifer zone was prepared based on the groundwater elevation data measured in November 2015 (see Figure 12). Based on these data, shallow groundwater flow is generally to the north in the northern portion of the site and to the south or southeast in the southern portion of the site.

Effective porosity was assumed to be 25% (Applied Hydrology, C.W. Fetter, 1994). The formula used to calculate the groundwater flow rate is as follows (Applied Hydrology, C.W. Fetter, 1994):

Velocity =
$$\frac{K i}{n_e}$$

where: K = hydraulic conductivity (feet per day) = 2.21 ft/dayi = hydraulic gradient (feet per foot) = 0.0069 ft/ft**n**_e = effective porosity (unitless) = 0.25

Based on the data input, an estimated groundwater velocity ranging of approximately 0.061 feet/day or approximately 22 feet per year was calculated for the site. We note, however, that constituents do not migrate at the same rate as groundwater and also attenuate as they migrate.

3.3.2 Vertical Hydraulic Gradient

Two deep monitoring wells (PDMW-28D and PDMW-29D) have been installed on site. These wells were terminated at depths of 50 and 49.5 feet below grade, respectively, and screened in the sand layer underlying the clay. Groundwater elevations measured in these two wells were somewhat lower than in other wells on site, indicating a downward vertical hydraulic gradient. Neither of these wells has exhibited impacts above risk reduction standards historically. PDMW-28D was closed some years ago. The vertical hydraulic gradient at the site was calculated by comparing groundwater elevations within the deep well PDMW-29D and the adjacent shallow well, PDMW-26T, as measured on November 11, 2015. The difference in groundwater elevation was 2.02 feet with the deeper well exhibiting the lower groundwater elevation, indicating a downward hydraulic gradient of 0.05 ft/ft.

PDMW-29D, located in the source area has exhibited very low ammonia concentrations consistently below background during 27 sampling events between 1997 and 2016 (with the exception of one outlier result in 2010), indicating some interconnection between the surficial and deeper portions of the aquifer. Ammonia concentrations in PDMW-28D were also consistently below the RRS.

4.0 DESCRIPTION OF THE RELEASE SOURCE

Results of soil and groundwater assessment activities indicate a release of regulated substances in soil and groundwater has occurred at the subject CSXT property. This section of the CSR provides a description of the source of the release.

The property was originally listed on the HSI for a known release of lead in soil and groundwater exceeding a reportable quantity based on the 1997 HSI listing.

4.1 REGULATED SUBSTANCES RELEASED FROM THE SOURCE

The regulated substances identified in soil at the property include: acenaphthene, acenaphthylene, ammonia, anthracene, arsenic, benzene, benzo(a)anthracene), benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, beryllium, cadmium, chromium chrysene, dibenzo(a,h)anthracene, ethylbenzene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, lead, mercury, nickel, phenanthrene, pyrene, toluene, xylenes, and zinc.

The regulated substances identified in groundwater at the property include: The substances identified in groundwater on the property include: acenaphthene, acenaphthylene, ammonia, anthracene, arsenic, benzene, benzo(a)anthracene), benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chromium, chrysene, ethylbenzene, fluoranthene, fluorene, lead, naphthalene, nickel, phenanthrene, pyrene, toluene, xylenes, and zinc.

4.2 CHRONOLOGY OF THE RELEASES

The source of detectable metals concentrations in soil and groundwater at the property has not been attributed to any specific release. The most likely source for metals at the property is the deposition of dredge spoils from the Savannah River which contained metals concentrations exceeding regulatory standards. The dredging operations began in the mid 1800s and continued until sometime before the site was developed in the 1920s.

The exact dates of the releases that have occurred during the operating history of the property could not be accurately determined. The majority of the petroleum releases are thought to have occurred while the former bulk petroleum storage facility was operational, between the 1920s and the 1970s. Such releases would have likely included: disposal of tank bottoms to a settling pit located at the northern end of the property; depositing of tank bottoms on the ground surface

adjacent to the tanks across the property; a reported release of approximately 1 to 2 tons of liquid fertilizer that occurred sometime between 1972 and 1982.							

5.0 DELINEATION OF SOIL CONTAMINATION

Soil samples were collected for laboratory analysis during several phases of investigation conducted by various consultants between 1988 and 2009. These assessments included soil sampling from 62 groundwater monitoring wells and several hundred soil borings.

5.1 PRELIMINARY INVESTIGATIONS

Several investigations were completed prior to the subject property being listed on the HSI. The first assessment was conducted in 1988 by Chattahoochee Geotechnical Consultants and included a broadly scoped assessment of a large area of Hutchinson Island which included the installation of two soil borings on the property, the exact locations of which are not known. Two composite soil samples were collected and tested for metals and total petroleum hydrocarbons (TPH). TPH was detected at a concentration of 740 mg/kg in one soil sample. Metals were also detected in each sample, but none exceeded the HSRA NCs subsequently established in 1994.

In 1992, Kemron conducted an assessment of the former bulk storage facility. The assessment included the collection of 25 soil samples which were tested for metals, SVOCs, and TPH. One sample was analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX). Lead, arsenic chrysene and benzo(a)pyrene were detected in concentrations exceeding the 1994 HSRA NCs. No BTEX constituents were detected above their HSRA NCs.

In August 1997, Applied Engineering and Science, Inc. (AES) conducted a soil sampling program in potential source areas. The sampling locations were selected to represent the most highly impacted areas of the former bulk storage facility, as evidenced by surficial staining, distressed vegetation or other visible indications of impacts. Eight soil samples were collected and tested for VOCs, SVOCs, metals, total Kjeldahl nitrogen (TKN), ammonia, nitrates and nitrites. No VOCs were detected above HSRA NCs. Chrysene and lead were the only regulated constituents detected above their respective NCs.

Soil sampling programs conducted by AES in 1997 and 2004 delineated concentrations of PAHs, volatile organic compounds (VOCs), metals and ammonia in soil to their background concentrations. A total of 127 soil samples were collected and analyzed to determine which substances exceed the applicable Type 3/4 RRSs. Those COCs detected above their respective RRSs were addressed by AES through a series of interim corrective actions as described in Section 9.0 and site specific risk analyses for PAHs, BTEX, and ammonia. The

AES interim corrective actions did not fully address all metals-impacted soils. However, these areas were addressed through additional assessment as described in Section 5.5.

5.2 AMEC FOSTER WHEELER INVESTIGATIONS

Amec Foster Wheeler (and its predecessor companies) continued the corrective action effort on behalf of CSX-RPI. A Corrective Action Plan was prepared in 2004 to address outstanding issues related to soil and groundwater impacts. After several revisions, a Modified Corrective Action Plan (MCAP), dated March 14, 2006, was approved by EPD. The MCAP included two phases of soil assessment which were implemented as described below. Metals delineation was the initial phase of corrective action performed under the MCAP.

Two soil delineation programs were performed by Amec Foster Wheeler in 2006 and 2007 to facilitate completion of the soil corrective actions outlined in the MCAP. The procedures and findings of these programs are detailed in the following subsections.

5.2.1 Analytical Parameters Selected

Soil samples collected during previous sampling activities conducted between 2006 and 2007 by Amec Foster Wheeler were analyzed for volatile organic compounds (VOCs, SW-846 Test Method 8260B) PAHs (SW-846 Test Method 8270C) and metals (SW-846 Test Method 6010).

5.2.2 Sampling and Analysis Procedures

Amec Foster Wheeler employed the following procedures and reports by other consultants refer to similar procedures.

5.2.3 Sampling Equipment and Collection Techniques

Soil samples were collected from direct-push (Geoprobe) borings using a four-foot long stainless steel sampling tube which is lined with a polyethylene sleeve and driven into the ground to the desired sampling depth.

5.2.4 Soil Sample Handling and Preservation Techniques

The collected soil samples were removed from the sampling device and placed in clean sample containers supplied by the laboratory. Soil samples for laboratory testing of VOCs were collected in accordance with SW-846 Method 5035 (the syringe method) and preserved in the field with sodium bisulfate and methanol. Samples were collected for metals, pesticide and herbicide analysis in unpreserved containers. Clean nitrile gloves were worn during all

sampling activities and the gloves were then discarded. Following sample collection, the samples were maintained on ice in a cooler until they were transferred to the laboratory.

5.2.5 Equipment Decontamination Procedures

Soil sampling tools and equipment, including drill rigs were decontaminated prior to beginning work on the site. During drilling operations, only clean drilling tools were used in each borehole. The split spoons and direct-push sampling tubes were decontaminated between samples and clean polyethylene liners were used for each Geoprobe sample. Clean nitrile gloves were used during the collection of all soil samples. Gloves were changed prior to the collection of each soil sample.

5.2.6 Chain-of-Custody Procedures

All collected samples were logged on a chain-of-custody form that was signed by the Amec Foster Wheeler field representative and the laboratory representative upon release of the samples to the laboratory. Chain-of-custody documentation are provided with the laboratory reports in Appendix A.

5.2.7 Laboratory Analytical Procedures

Following delivery to the laboratory, selected soil samples collected by Amec Foster Wheeler were analyzed for Ammonia using SW-846 Test Method 3-154, VOCs using SW-846 Test Method 8260B, PAHs using SW-846 Test Method 8270C, metals using SW-846 Test Method 6010C and 7471B.

5.2.8 Quality Control Procedures

Quality control samples were prepared and analyzed during the assessment. Duplicate soil and groundwater samples were tested. Trip blanks and field blanks were included with the samples submitted to the laboratory. The trip blanks were provided by the laboratory and consisted of 40-ml vials filled with water. Results of the trip blank analyses are included in the laboratory reports. Results of Surrogate analysis are also included in the laboratory reports. Backup QA/QC data for these samples were included in laboratory reports for each assessment phase.

The soil samples collected by Amec Foster Wheeler were submitted to TestAmerica Laboratories for laboratory analysis. TestAmerica maintains a National Environmental Laboratory Accreditation Conference (NELAC) certification for the analysis of ammonia, volatile organics, PAHs and metals.

All downhole equipment, tools and materials were decontaminated prior to use and between each boring to minimize the potential for introduced and/or cross contamination. Decontamination of equipment and appropriate sampling protocols were observed throughout the drilling operation to preclude the introduction of contaminants. The field work was supervised by environmental professionals and the work was conducted under the provisions of our Health and Safety Plan.

5.2.9 Summary of Pertinent Soil Testing Data

In accordance with the MCAP, Amec Foster Wheeler implemented the first phase of the soil sampling program at the property between May 1 and 6, 2006. The purpose of the program was to: 1) confirm that lead-impacted soil had been removed from Lead Area 1 by collecting confirmatory samples every 25 feet (ft) along the perimeter of the former excavation 1; 2) update and refine the estimated quantity of lead-impacted soil in Lead Areas 2 through 6; 3) assess arsenic concentrations in soil in the immediate vicinity of PDMW-31R; and 4) refine the estimated quantity of PSM present based on the observation of petroleum source material (PSM) at two boring locations in April 2006.

Amec Foster Wheeler directed the advancement of 145 soil borings at the Property using a Geoprobe direct-push drill rig. The locations of these borings are illustrated on **Figure 3**. Boring log data was not collected; however observations regarding the presence of PSM were noted as indicated in Table 2. Ninety of the borings were installed to assess the extent of lead in soil and 55 were installed to assess the extent of PSM. An additional four borings were installed using a hand auger to assess arsenic concentrations in soil around PDMW-31R. Each Geoprobe soil boring was installed to depths ranging from 4 to 8 ft below ground surface (bgs) and the four hand auger borings were installed to 2 ft bgs. The soil from each area was assessed as follows:

Lead in Soil Borings: Unsaturated soil samples from each boring were screened for lead in 1-ft intervals using an Innov-X portable X-Ray Fluorescence (XRF) analyzer. The purpose of using the XRF was to test the effectiveness of XRF technology as a screening tool.

Amec Foster Wheeler screened 167 samples from 98 locations using the XRF. Seventy-three of these samples, including 35 confirmation samples from the perimeter of Lead Area 1, were sent to Severn Trent Laboratories, Inc. (STL) for lead analysis by SW846 method 6010B to assess the correlation between XRF and fixed-laboratory results. The comparison of STL

results to the XRF readings found that correlation between the XRF and fixed-laboratory results was reasonable considering the heterogeneity of the soil (R2= 0.61). XRF and fixed-laboratory results are presented in Table 1.

PDMW-31R Area Borings: The March 2006 groundwater sampling event identified arsenic in the groundwater sample from PDMW-31R at a concentration of 72 micrograms per liter (μg/L). Amec Foster Wheeler collected and analyzed soil samples in accordance with the March 14, 2006 NOD response letter to the GAEPD. The boring locations were positioned within 20 ft to the north, south, east, and west of the well (Arsenic Area 1). Amec Foster Wheeler used the XRF analyzer to field screen recovered unsaturated soil from each boring in 1-ft intervals for arsenic. Of the eight soil samples screened, four were submitted to STL for arsenic analysis (Table 2). Two of these samples contained arsenic at concentrations exceeding the Type 3/4 RRS.

PSM Delineation Borings: Soil from the 55 borings was visually screened for the viscous, thick, weathered free product that is characteristic of PSM present at the Property. Where present, the depth and thickness of PSM was documented. The locations selected were based on previously delineated boundaries of PSM. The delineation was based on stepping out every 25 ft from impacted edges until no signs of PSM were identified. The PSM areas defined during this assessment were identified as PSM Areas 2, 3, and 4 (**Figure 4**).

5.2.10 Soil Delineation Results and Conclusions

The results of the May 2006 delineation program showed that much of the lead-impacted soil in Lead Area 1 was removed during the 2005 excavation program as demonstrated by lead concentrations in soil samples from borings LIS-038, LIS-039, LIS-041, LIS-042, LIS-043, LIS-048, LIS-049, LIS-051, LIS-055, and LIS-063, being below the 400 mg/kg Type 3 RRS (as determined by Method 6010B.) Samples LIS-040, LIS-046, LIS-050, and LIS-052 contained lead at concentrations greater than the 400 mg/kg indicating that further excavation was necessary in several isolated areas along the boundary of Lead Area 1.

XRF screening results from five samples collected in Lead Area 6 did not confirm lead at concentrations exceeding 400 mg/kg. The highest screening concentration for lead was 52.97 mg/kg. The two samples with the highest concentrations were sent to STL for analysis. Both lead results were less than 50 mg/kg. The original sample PDMW31R-2 (860 mg/kg from 0-1 ft bgs) was collected in 2001. A resampling event in 2004 found concentrations ranging from 120

mg/kg from 0-6 inches (in.) bgs to 55 mg/kg from 6-12 in. bgs in the same location as the 2001 sample. Because Amec Foster Wheeler's five delineation sample results were consistent with the two 2004 samples, Amec Foster Wheeler concluded that the single lead-impacted soil sample identified in 2001 was either anomalous, extremely isolated, or has since been attenuated.

Two of the four samples collected from Arsenic Area 1 exceeded the 38 mg/kg Type 3/4 RRS for arsenic. Although Arsenic Area 1 was not delineated during the program, it is apparent that soil in the vicinity of PDMW-31R may be contributing to arsenic concentrations in groundwater. As such, soil corrective action measures were planned for Arsenic Area 1.

PSM was encountered in 60 of the 145 soil borings drilled during the program. The results further refined the interpreted boundaries of PSM Areas 2 and 3. The 13 borings installed along the northern edge of the Property confirmed the presence of PSM across an area of at least 0.25 acre. It is notable that historic maps indicated a former tank bottoms settling pit in this area. Based on the findings, this area was designated as PSM Area 4 and was scheduled for corrective action.

5.2.11 Site-Wide PSM Investigation

As Amec Foster Wheeler's soil corrective action program for metals described progressed, three previously unidentified areas containing PSM were found either along abandoned piping or adjacent to metals impacted areas. These areas were designated as PSM Areas 5, 6, and 7. Based on these findings, Amec Foster Wheeler re-evaluated the existing data for the Property and concluded that a thorough site-wide assessment of PSM was warranted. Amec Foster Wheeler established a grid across the Property and initiated an investigation program using a Geoprobe direct-push drill rig. A licensed land surveyor was subcontracted prior to initiating the site-wide investigation to ensure proper coverage near the Property boundaries.

Amec Foster Wheeler advanced 260 soil borings on a 50 ft by 50 ft grid in areas of the Property where excavation activities had not previously been performed. Each boring was installed to a depth of 8 ft bgs. Each boring was logged for general soil characteristics and the presence or absence of PSM based on visual and olfactory screening. In the interest of expediting the program and given the extensive geologic data available for the site, formal logs were not created for each boring. A photoionization detector (PID) was used periodically during the

assessment to screen impacted soil. The majority of the PSM is aged, highly weathered, viscous material that in general does not result in elevated PID readings.

Eighteen (18) of the grid locations in six general areas confirmed the presence of PSM. These areas were designated PSM Areas 8 through 13. An additional 55 borings were advanced to delineate the six new PSM areas. Table 2 summarizes the observations from each of the 315 soil borings.

The soil and PSM delineation data were utilized by Amec Foster Wheeler to bound the extent of soils requiring corrective action as described in Section 9.0.

5.3 BACKGROUND SOIL CONCENTRATIONS

Background concentrations for COCs in soil were calculated during previous assessment work conducted by Blasland, Bouck & Lee, Inc. and submitted to EPD in the Compliance Status Report Notice of Deficiency Response Letter: Hutchinson Island, Savannah, Georgia, prepared by Blasland, Bouck & Lee, Inc., February 2005. These same background values were incorporated into Amec Foster Wheeler's Revised CSR, dated February 29, 2008. The soil background concentrations are included in Tables 9-1 and 9-2.

6.0 DELINEATION OF GROUNDWATER CONTAMINATION

Numerous groundwater monitoring events have been conducted for the project since 1997. A total of 62 monitoring wells have been installed on the site, which includes the adjacent properties, during the course of the various assessments. Monitoring wells MW-1 through MW-5, TMW-1 through TMW-4R and PDMW-1T through PDMW-34T were originally installed by AES in the 1990s. PDMW-35P through PDMW-53, EW-1, and MW-201 through MW-204 were installed by Amec Foster Wheeler between 2008 and 2015. The wells installed on the site were intended to evaluate the horizontal and vertical extent of contamination.

6.1 ANALYTICAL PARAMETERS SELECTED

Groundwater samples collected by Amec Foster Wheeler were submitted to TestAmerica Laboratories of Savannah, Georgia for analysis of ammonia using EPA method 350.1, polycyclic aromatic hydrocarbons (PAHs) using SW-846 method 8310, BTEX using SW-846 method 8260 and total metals (As, Cr, Pb, Ni, Zn) using SW-846 method 6010. In the event that turbidity could not be reduced to below 10 nephelometric units (NTU) after 2 hours of purging, both filtered and unfiltered metals samples were collected at the respective well.

6.2 MONITORING WELL LOCATIONS AND CONSTRUCTION METHODS

The monitoring wells were generally installed in borings drilled with hollow-stem augers. Due to equipment inaccessibility, monitoring wells PDMW-28 through PDMW-52 were installed in borings drilled using a 6-inch diameter hand auger (see Table 3).

6.2.1 Type of Well Casing Material

The monitoring wells installed on site consist of Schedule 40 PVC well casing and screen with threaded joints. Most of the monitoring wells on site consist of two-inch diameter PVC pipe. PDMW-35Pthroug PDMW-38P and PDM-45R were constructed with one-inch diameter PVC. MW-201 through MW-203 and EW-1 were constructed of four-inch diameter PVC.

6.2.2 Screen Slot Size and Length

Each of the drilled wells on site was constructed with 0.01-inch factory slotted PVC well screen. Monitoring wells PDMW-23R, PDMW-31R2, PDMW-40R, and MW-201 utilized a 7-foot screen length. Monitoring wells MW-3R, PDMW-8R, PDMW-10R, PDMW-27R, PDMW-45R, TMW-4R, MW-203 and MW-204 utilized an 8-foot screen length. MW-1, MW-2, PDMW-35P, PDMW-36P,

PDMW-38P, and EW-1 utilized a 10-foot screen length. All other monitoring wells on site utilized a 5-foot screen length.

6.2.3 Filter Pack Materials and Length

Washed 20/30 sieve size quartz sand was used to create the filter pack around the well screen in each of the wells. The sand extended to a height of approximately one to two feet above the top of the screen.

6.2.4 Method of Filter Pack Emplacement

The sand pack in the augered wells was placed around the screen by pouring the sand through the hollow-stem augers while simultaneously raising the augers to prevent bridging of the sand within the augers. Sand was placed around the hand augered well screens by pouring the sand around the well screen from the surface. The filter pack was then sealed from above with a one to two-foot layer of hydrated bentonite clay.

6.2.5 Surface Seal

The wells were grouted to within approximately six inches of the ground surface with Portland cement grout (Type II well construction). These wells were then topped with stick-up lockable steel covers.

6.2.6 Well Development Methods and Procedures

The initial well development procedures employed by AES included development of shallow wells using disposable bailers and the removal of at least five well volumes of water. The two deep wells were developed with submersible pumps and the removal of 100-200 gallons of water.

Monitoring wells installed by Amec Foster Wheeler were developed using peristaltic pumps or submersible pumps at least 24 hours after installation. The parameters temperature, pH, specific conductivity and turbidity were periodically monitored during well development. Development continued until these parameters stabilized pursuant to EPA methodology and a minimum of five well volumes of water were removed during well development.

6.3 SAMPLING AND ANALYSIS PROCEDURES

6.3.1 Groundwater Elevation

During each of Amec Foster Wheeler's groundwater monitoring events, groundwater levels were measured in each well from the top of the well casing. As discussed in Section 5.4, a survey was conducted to measure the elevation of the top of each well casing for preparation of potentiometric surface maps (see **Figure 12**).

6.3.2 Well Evacuation Procedures

Prior to resampling of existing wells, the wells were purged using a peristaltic pump and Teflon tubing. During purging, the parameters temperature, pH, specific conductivity and turbidity were monitored and submitted in the previous reports. Purging continued until these parameters stabilized pursuant to EPA methodology and a minimum of three well volumes were removed or the well went dry.

6.3.3 Groundwater Sampling, Handling and Preservation

Immediately following purging, groundwater samples were collected using a peristaltic pump and low-flow sampling procedures. Clean nitrile gloves were worn during all purging and sampling activities and were changed between each well location.

Samples were collected in clean sample containers, supplied by the laboratory, which contained the appropriate preservative. 40ml glass vials were used for the collection of groundwater samples for VOC analysis. VOC samples obtained by Amec Foster Wheeler were collected using a peristaltic pump by allowing the tubing to fill and then sealing the end near the pump, removing the tubing from the well and allowing it to gravity drain into the VOC vials to minimize turbulence and reduce the potential for volatilization (the straw method). The vials were completely filled, with no bubbles or headspace. Samples to be tested for PAHs, metals and ammonia were collected using a low flow peristaltic pump with the discharge line discharging directly into the sample container. Following sample collection, the bottles were stored on ice in a cooler until they were transferred to the laboratory. The samples were maintained under strict chain-of-custody control from the time they were collected until they were relinquished to the laboratory.

6.3.4 Decontamination Procedures

Decontamination procedures consisted of the use of clean, unused tubing at each sampling location. Nitrile gloves were also worn and changed between each sampling location. Tubing was disposed of after each use. No equipment was used to sample more than one well.

6.3.5 Laboratory Analytical Procedures

The samples collected during Amec Foster Wheeler's pre-VRP monitoring events were submitted to TestAmerica Laboratories in Savannah, Georgia and tested for the presence of ammonia, VOCs, PAHs and metals.

Groundwater samples collected by Amec Foster Wheeler in 2013-2015 VRP sampling events were submitted to TestAmerica Laboratories and tested for the presence of ammonia, metals, and in certain cases, VOCs, PAHs, nitrate and nitrite. The exact suite of constituents varied for each well in accordance with the sampling schedule and the access agreements negotiated for the sampling of off-site wells.

6.3.5.1 Quality Control Samples

The groundwater samples were maintained under chain-of-custody control and submitted to the analytical laboratory for testing. Duplicate samples and field blanks were tested. Trip blanks prepared by the laboratory were also submitted for testing. QA/QC was conducted in accordance with the laboratory analysis selected. Backup QA/QC data for these samples was included in the laboratory reports. For quality assurance/quality control (QA/QC) purposes, duplicate, equipment blank, and matrix spike (MS)/matrix spike duplicate (MSD) samples were collected during each event. Additionally, trip blank and temperature blank samples accompanied each sample shipment.

6.3.5.2 Chain-of-Custody Procedures

Samples collected during the assessment were delivered to the analytical laboratory under strict chain-of-custody protocol. From the time of collection until they were released to the laboratory, the samples were stored in ice-filled coolers. Chain-of-Custody records documenting the transfer of the samples to the laboratory were maintained and are included in the laboratory reports in Appendix A.

6.4 BACKGROUND GROUNDWATER QUALITY

Background concentrations for the COCs detected on site were calculated by BBL and were previously submitted in Amec Foster Wheeler's Revised 2009 CSR and are included in Table 9-2.

6.5 SUMMARY OF GROUNDWATER TESTING RESULTS

Groundwater monitoring has occurred on numerous occasions at the site beginning in October 1997. The next sampling event was conducted by AES in August 1999. A series of quarterly monitoring events were then undertaken by AES in November 1999, February 2000, May 2000, August 2000 and January 2001. The cumulative groundwater testing results for these and all other sampling events are summarized in Table 7. The results of the groundwater monitoring events completed by AES were generally consistent with those obtained by Amec Foster Wheeler during the ensuing years. Due to the volume of data collected, the focus of this discussion will be on the Amec Foster Wheeler sampling events conducted between 2008 and 2015. The most recent groundwater testing results are summarized on **Figure 5** and on **Figures 8-11**. Contaminant trend graphs for COCs are presented in Appendix D.

6.5.1 Pre-VRP Sampling and Testing

Nine groundwater monitoring events were conducted by Amec Foster Wheeler following the installation of the groundwater treatment system and prior to the Property's entry into the VRP.

This section presents an overview of the results for these groundwater sampling events. More detailed discussions of the results were provided in the Corrective Action Annual Reports (CAPR) dated, April 6, 2010, March 30, 2011 and March 12, 2012 which were previously submitted to EPD. Table 7 summarizes the data for these and all other groundwater monitoring events.

As reported in the 2009 Annual Groundwater Corrective Action Progress Report, between April 2008 and December 2009, four groundwater monitoring events were conducted at the property, which included the sampling of 45 monitoring wells. The data obtained during these four sampling events are summarized as follows:

Ammonia was detected at concentrations exceeding its RRS of 30 mg/L in up to 15 wells during the four sampling events. The highest ammonia concentrations were observed in the northern portion of the Property, particularly in TMW-1, which ranged from 1,400 mg/L in April 2008 to

330 mg/L in December 2009. The 330 mg/L value was not consistent with historical data for this well. Each of the ammonia results from TMW-1 was significantly below the historic high value for this well of 18,000 mg/L which was detected in 2000, although all subsequent results from TMW-1 were well below this historic high value. PDMW-26T, located near TMW-1 consistently exhibited ammonia at between 500 and 600 mg/L. Elevated ammonia concentrations were also detected in the east-central portion of the Property in EW-1 and MW-204 at concentrations of up to 520 mg/L. The RRS exceedances were generally located in these two areas. Ammonia concentrations toward the periphery of the property typically were significantly lower.

Lead was detected in excess of RRS in five wells (MW-3T, PDMW-13P, TMW-1, EW-1 and MW-204). The lead concentrations were generally consistent with historical observations. Arsenic was detected in excess of its RRS in MW-8R, TMW-1 and PDMW-7P; however, only the result in TMW-1 was consistent with historical data. Chromium, nickel and zinc were not detected above their respective RRS.

Benzene and naphthalene were the only other COCs detected above their respective RRS in groundwater. Benzene was detected in TWM-1 and MW-204 while naphthalene was detected in TMW-1, MW-204, PDMW14-TR and PDMW-23R.

6.5.2 2010 Groundwater Monitoring

As reported in the 2010 Annual Groundwater Corrective Action Progress Report, four quarterly groundwater monitoring events were conducted at the Property which included as many as 43 wells. As described in the CAPR, the wells sampled and specific analytes varied during each event in accordance with the MCAP. The data obtained during these four sampling events are summarized as follows:

Ammonia was detected in excess of its RRS in 16 wells during the 2010 annual monitoring period. The ammonia testing results were generally consistent with the 2009 results, with the highest concentrations detected in TMW-1 (maximum concentration of 3,200 mg/L) and elevated concentrations remaining in PDMW-26T (520 mg/L maximum), EW-1 (580 mg/L maximum) and MW-204 (300 mg/L maximum). The size and shape the ammonia plume appeared similar to previous configurations, indicating that the plume was not migrating significantly.

Lead concentrations were generally consistent with historical observations with only one RRS exceedance in MW-1 (0.04 mg/L). A new Type 1/3 groundwater RRS of 0.010 mg/L for arsenic was established in December 2009. The accepted background concentration for arsenic at the Property is 0.018 mg/L, which was adopted as the new Type 3/4 RRS. As a result, a greater number of monitoring exhibited arsenic exceedances, only one of which (PDMW-8R) would have exceeded the previous standard. Chromium, nickel and zinc were not detected above their respective RRS and were eliminated from upcoming groundwater sampling events at the Property.

For the well identified as PDMW-14TR, the concentration of naphthalene in March 2010 was 28 μ g/L, non-detect in June and September 2010, and 320 μ g/L in December 2010. The December result is within the historical range, but higher than naphthalene concentrations detected since 2006. Benzene was only detected on two occasions in TMW-1 and in each case was above its RRS.

6.5.3 2011 Groundwater Monitoring

As described in the 2011 Annual Corrective Action Progress Report, two semi-annual groundwater monitoring events were conducted in June and December 2011, which included sampling up to 40 wells. The data obtained during these four sampling events are summarized as follows:

Ammonia was detected at concentrations exceeding the RRS in 18 wells in June 2011 and 12 wells in December 2011. Ammonia exceedences in 2011 were generally consistent with historic data with the exception of somewhat higher than normal concentrations noted in PDMW-1T and PDMW-2T during the June 2011 monitoring event. Consistent with previous monitoring events, the highest ammonia concentrations were noted in the northern portion of the site (TMW-1 and PDMW-26T) and in the east-central portion of the Property (EW-1 and MW-204). The highest concentration observed (4,600 mg/L) was again detected in TMW-1. Again, the size and shape the ammonia plume appeared similar to previous configurations, indicating that the plume was not migrating significantly. The magnitude of the ammonia concentrations had generally decreased since start-up and operation of the groundwater remediation system.

One lead exceedance was noted in the sample collected in June 2011 from monitoring well PDMW-13P. Lead concentrations in 2011 were generally consistent with historic observations and no other exceedances of the lead RRS were observed in 2011. Arsenic was detected at

concentrations exceeding its RRS in eight wells in June 2011 and four wells in December 2011. Arsenic detections are generally consistent with historic data with the exception of one exceedance noted in PDMW-45R during the June 2011 monitoring event. The arsenic detection in PDMW-45R was the first exceedance detected in the well since January 2004. However, the June 2011 arsenic concentration was within the same order of magnitude as historic detections in PDMW-45R.

Naphthalene was detected in both samples collected from well PDMW-14TR in 2011 at concentrations exceeding its RRS. No other samples analyzed for naphthalene in 2011 had concentrations exceeding the RRS. Naphthalene concentrations at well PDMW-14TR in 2011 were generally consistent with historic data and lower then an anomalously high result observed in December 2010.

6.5.4 Post-VRP Sampling and Testing

Following the Property's entry into the VRP, Amec Foster Wheeler prepared a Sampling and Analysis Plan (SAP) for the semi-annual groundwater monitoring events to be undertaken in accordance with the requirements of the VRP. The general sampling and testing protocols outlined in the SAP were similar to those previously employed by Amec Foster Wheeler, with the exception that the suite of COCs to be tested for had been reduced in certain wells with an established history of compliance for those particular COCs and that nitrate, a breakdown product of ammonia, would be included in the analyses. An access agreement between CSXT and SEDA to allow for the installation of several wells on the SEDA property also prohibited the testing of constituents other that ammonia and nitrate from wells on the SEDA property.

Five sampling events have occurred to date under the VRP. These events took place in December 2013, June 2014, November 2014, May 2015 and November 2015. The results of the VRP semi-annual monitoring were submitted to EPD in Semi-Annual Progress Report (SAPR) Nos. 2 through 6 between January 2014 and January 2016 and are discussed below. Groundwater testing results for the most recent sampling event are illustrated on **Figure 5** and the cumulative groundwater testing data is summarized in Table 7. **Figures 8-11** depict isopleths of the primary constituents of concern (COCs) in groundwater. COC trend graphs are also included in Appendix D.

The first VRP sampling event included testing of groundwater from 18 wells. The number of wells utilized in the VRP sampling events had been reduced from the monitoring program under

the MCAP due to the consistent lack of detection of COCs above applicable RRS in numerous wells. Several of the wells located in the interior of the site had been eliminated as groundwater conditions had been well established in this area over the previous sampling events. The VRP sampling focused on presumed source areas and near the Property boundaries as well as off-site locations downgradient of the source areas. The source areas were monitored to continue to assess the most heavily impacted areas and evaluate whether discontinuing the groundwater recovery would have adverse effects. Subsequent monitoring events incorporated newly installed wells on the adjacent properties, primarily located downgradient of ammonia contaminant plumes. The downgradient areas were investigated and monitored with the newly installed wells to act as "point of demonstration" wells on SEDA Parcel B. They were also used to provide data for groundwater modeling input and validation and to assess the condition of the groundwater in the immediate vicinity of the drainage canal on SEDA Parcel B.

First VRP Sampling Event

The first VRP monitoring event was conducted in December 2013 and included sampling 18 wells. MW-2 was intended to be sampled, but could not be located. Groundwater monitoring results indicated that of the 18 wells sampled, five exceeded established background concentrations for ammonia. The concentrations of ammonia in TMW-1 and MW-1, the wells located in the area of historically highest ammonia impacts, had decreased substantially since the last sampling event in 2011. Lesser decreases in ammonia concentrations were observed in the other three wells with ammonia above background concentrations. Significant changes in ammonia concentrations were not noted in those wells in which ammonia was detected below established background concentrations.

VOCs were detected above laboratory reporting limits in only one well, TMW-1. Total BTEX concentrations in TMW-1 remained generally consistent with previous data and benzene remained the only VOC constituent detected above its RRS at this location or in any of the wells sampled.

PAHs were detected above laboratory reporting limits in only one well, TMW-1. During previous sampling events, naphthalene was the only PAH constituent detected above its RRS of 20 μ g/L in this well. The naphthalene concentration of 5.2 μ g/L was below its RRS for one of the few times since this well began to be sampled in 2000.

The metals lead and arsenic were the only metals detected above applicable RRS. Lead was detected above its RRS of 15 μ g/L in three wells (EW-1, PDMW-13P and PDMW-32R). PDMW-32R had its first exceedance of the RRS for lead and the other wells were consistent with previous results. Arsenic exceeded its RRS of 18 μ g/L in two wells, TMW-1 and PDMW-26T. Both of these results were consistent with previous data.

Six of the wells sampled contained detectable levels of nitrate although only in TMW-1 did the nitrate concentration exceed the drinking water standard of 10 mg/L.

Second VRP Sampling Event

The second VRP monitoring event was conducted in June 2014 and included the sampling of all 19 wells originally specified in the SAP as well as seven additional wells installed on the Hutchinson Island Ventures property to the east (PDMW-46), the Spartan Hutchinson Island Investments, LLC property to the west (PDMW-47 and PDMW-48) and the SEDA Parcel B property (PDMW-49 through PDMW-52).

Ammonia concentrations were above the RRS for ammonia in six wells, including: TMW-1, EW-1, PDMW-8R, PDMW-26T, PDMW-47 and PDMW-48. The concentrations of ammonia in TMW-1 and EW-1, the wells located in the area of historically highest ammonia impacts remain elevated relative to the rest of the site. The highest ammonia concentration observed during the most recent sampling event was in TMW-1 at 2,600 mg/L, which was slightly lower than the previous event and significantly lower than the historic high. The ammonia concentration in PDMW-26T, located in the vicinity of TMW-1, remained consistent with historic ammonia levels in this well. Ammonia in PDMW-48, located downgradient to TMW-1, was approximately two orders of magnitude below the ammonia concentration of TMW-1.

EW-1 exhibited ammonia at a concentration of 1,100 mg/L, which was an increase from the previous testing event in December 2013 (400 mg/L), and its highest to date, but consistent with reasonably expected variation for its relatively new data set (first sampled in 2008).

Newly installed wells, PDMW-47 (located west of the CSXT parcel) and PDMW-48 (located between the area of highest ammonia concentrations and the drainage canal) exhibited ammonia at 72 mg/L and 27 mg/L, respectively.

The remaining 17 wells that were sampled exhibited ammonia concentrations below the site-specific background concentration of 15 mg/L. Some minor fluctuations were noted among

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these samples compared with previous data, but the data were generally consistent with previous results.

The newly installed wells located adjacent to the drainage canal (PDMW-49 through PDMW-52) exhibited only very low concentrations of ammonia, below 1 mg/L.

Third VRP Sampling Event

The third VRP monitoring event was conducted in June 2014 and included the sampling of 29 wells on the subject Property and immediately surrounding properties, including a new well (PDMW-53) located on the Spartan Hutchinson Island Investments property west of the subject Property. The following observations are provided based upon the data obtained:

Ammonia concentrations were above the established site-specific background concentration of 15 mg/L in 12 of the 29 wells tested. Seven of the test results exceeded the RRS for ammonia, including: EW-1, MW-204, TMW-1, PDMW-8R, PDMW-26T, PDMW-40R and PDMW-47. Ammonia concentrations in most of the wells remained consistent with those measured during the previous sampling event in June 2014. Ammonia concentrations in EW-1, MW-204 and PDMW-26T decreased. The ammonia concentration in TMW-1 was higher when compared to the June 2014 sampling event, but was consistent with recent historical data.

The concentrations of ammonia in TMW-1 and EW-1, the wells which have historically exhibited the highest ammonia impacts, remained elevated relative to the rest of the site. The highest ammonia concentration observed during the most recent sampling event was in TMW-1 at 3,900 mg/L. PDMW-48 located on the SEDA Parcel B, downgradient of TMW-1, exhibited an ammonia concentration of 22 mg/L, again over two orders of magnitude below the concentrations of TMW-1, located nearby and upgradient.

During the June 2014 monitoring event, EW-1 had exhibited its highest concentration of ammonia to date (1,100 mg/L) and the assumption was made at that time that the elevated concentration was within a normal range of fluctuation. The November 2014 data supported the previous assumption as it showed the ammonia concentration in EW-1 at less than half the June 2014 concentration and consistent with 2011 data.

PDMW-47 (located west of the CSXT parcel) exhibited ammonia at 110 mg/L during the June 2014 sampling event. A new well PDMW-53, was installed in the area west of PDMW-47. This

well exhibited an ammonia concentration of 5.5 mg/L, below the established background concentration of 15 mg/L.

Some minor fluctuations were noted among the remaining wells compared with previous data, but the current data were generally consistent with previous results.

Three of the 29 wells sampled (TMW-1, PDMW-26T and EW-1) exhibited nitrate above the laboratory reporting limits. Of these, only TMW-1, with a nitrate concentration of 120 mg/L (down from 170 in June 2014) exceeded the drinking water standard of 10 mg/L. These results are also generally consistent with the previous testing results.

PAHs were only detected in monitoring well TMW-1 and naphthalene was the only HSRA-regulated PAH detected above laboratory reporting limits at that location. The naphthalene concentration of 44 μ g/L at TMW-1 was above its RRS of 20 μ g/L, which it consistently has been since this well began to be sampled in 2000. The naphthalene concentration at TMW-1 was also higher than the previous sampling event, but was consistent with recent historical results.

VOCs were only detected in monitoring well TMW-1. Benzene and xylenes were the only VOCs detected in this well and benzene was the only VOC detected above its RRS of 31.2 μ g/L. The benzene concentration of 80 μ g/L was consistent with previous results and the xylene concentration of 420 μ g/L was somewhat higher than previous results (though still well below its RRS of 10,000 μ g/L).

Metals were detected in four of the wells tested, including: EW-1, TMW-1, PDMW-13P and PDMW-32R. Total metals concentrations in groundwater were typically below site-specific background concentrations and applicable RRS with the exceptions noted below. Based upon the findings from the June 2014 sampling event for PDMW-13P, in which lead was detected above its RRS of 15 μ g/L, PDMW-13P was resampled in August 2014 for both total and dissolved lead analyses. The retesting indicated a total lead result of 23 μ g/L while the dissolved lead result was below the laboratory reporting limit of 10 μ g/L. This result indicates possible contribution from suspended sediment in the samples, even though the turbidity of the dissolved lead sample was relatively low (5.7 NTU). During the November 2014 sampling event, total lead was detected at 33 μ g/L in PDMW-13P (and 39 μ g/L in a duplicate sample) with a turbidity of 7 NTU. These concentrations are consistent with the earlier results and well below the maximum concentration of 280 μ g/L recorded in June 2011. Lead was delineated in

the vicinity of PDMW-13P using the results obtained from nearby wells PDMW-24T, PDMW-32R, MW-201 and MW-202 during the November 2014 sampling event. None of the wells used for delineation of PDMW-13P contained detectable concentrations of total lead (see **Figure 10**).

Total arsenic was detected in TW-1 at 150 μ g/L, consistent with recent historical results and above its RRS of 18 μ g/L. Total arsenic was detected in EW-1 at its detection limit of 20 μ g/L. Arsenic is delineated in the northwest portion of the CSXT property and around TMW-1 as it was not detected in the nearby surrounding wells PDMW-48, MW-3R or PDMW-1T during the November 2014 sampling event. Arsenic is delineated in the central portion of the site as it was not detected in wells surrounding EW-1 (PDMW-10R, PDMW-23R, MW-201 PDMW-4T and PDMW-27R) during the November 2014 sampling event.

Fourth VRP Sampling Event

The fourth VRP monitoring event was conducted in May 2015 and included the sampling of 27 wells on the subject Property and immediately surrounding properties. The following observations are provided based on the data obtained:

Ammonia was detected at concentrations exceeding the RRS in samples collected from five monitoring wells, including: EW-1, TMW-1, PDMW-8R, PDMW-26T, and PDMW-47. May 2015 analytical results showed a decrease in ammonia concentrations in wells EW-1, PDMW-8R, PDMW-32R, PDMW-47, and PDMW-48 when compared to the results of the November 2014 sampling event. May 2015 ammonia concentrations for wells TMW-1 (4,300 mg/L) and PDMW-26T (550 mg/L) were higher when compared to November 2014 analytical results, but were generally consistent with recent historical data for these wells. Ammonia concentrations for the remaining wells sampled in May 2015 are generally consistent with recent historical data for these wells.

Nitrate was again detected in only three of the wells sampled (TMW-1, PDMW-26T and EW-1) with only TMW-1 exceeding drinking water standard, consistent with previous results.

At the request of the Georgia EPD, the active monitoring well network was sampled for nitrite for the first time in May 2015. Nitrite was detected at concentrations above the laboratory reporting limit in nine of the 27 wells sampled (MW-2, MW-3R, PDMW-7P, PDMW-8R, PDMW-47, PDMW-48, PDMW-50, PDMW-53, and TMW-4R) in May 2015. Although a drinking water standard for nitrite has not been established, none of the detected nitrite concentrations

exceeded the maximum contaminant level goal (MCLG) of 1 mg/L for drinking water established by the USEPA.

PAH sampling was limited to one monitoring well (TMW-1) for the May 2015 monitoring event. Naphthalene was detected at a concentration of 44 μ g/L in the sample collected from TMW-1, which exceeds the RRS of 20 μ g/L. This naphthalene exceedance is the same concentration as the previous sampling event and is consistent with recent historical results for TMW-1. No other HSRA-regulated PAHs were detected above laboratory reporting limits in the sample collected from TMW-1.

VOCs sampling was limited to one monitoring well (TMW-1) for the May 2015 monitoring event. Benzene was detected at a concentration of 48 μ g/L in the sample collected from TMW-1, which exceeds the RRS of 31.2 μ g/L. In addition, total xylenes were detected at a concentration of 120 μ g/L, which is well below its RRS. The detections of benzene and total xylenes were less than the concentrations detected during the November 2014 sampling event and were generally consistent with recent historical results for TMW-1. No other VOCs were detected above laboratory reporting limits in the sample collected from TMW-1.

Groundwater samples were collected for total metals analysis from 21 monitoring wells during the May 2015 monitoring event. Total metals were detected in five of the wells, including: EW-1, MW-3R, TMW-1, PDMW-26T and PDMW-32R. Total metals concentrations detected in groundwater samples were typically below site-specific background concentrations and applicable RRS with the exceptions noted below.

Total lead was not detected above the laboratory reporting limit in samples collected from the 27 monitoring wells. A review of historical analytical results showed that this is the first time since June 2010 (seven sampling events) that total lead has not been detected in monitoring well PDMW-13P.

Total arsenic was detected in monitoring wells TMW-1 (160 μ g/L) and PDMW-26T (25 μ g/L) at concentrations exceeding the RRS of 18 μ g/L. These exceedances are generally consistent with recent historical results for wells TMW-1 and PDMW-26T. Arsenic is delineated in the northwest portion of the CSXT property and around wells TMW-1 and PDMW-26T, as it was not detected in the nearby surrounding wells MW-3R, PDMW-8R, PDMW-29D, and PDMW-33R2 during the May 2015 sampling event. Historical analytical results for nearby wells PDMW-1T,

PDMW-2T, PDMW-35P, and PDMW-48 also indicate that total arsenic exceedences are generally limited to wells TMW-1 and PDMW-26T in the northwest corner of the CSXT property.

Total chromium was detected in monitoring well TMW-1 at a concentration of 32 μ g/L, which is above the background level of 13 μ g/L but below the RRS of 100 μ g/L. This detection of total chromium is generally consistent with historical analytical results for well TMW-1. Recent historical analytical results for nearby wells MW-3R, PDMW-1T, PDMW-26T, PDMW-29D, PDMW-35P, and PDMW-48 indicate that total chromium detections above background are limited to well TMW-1 in the northwest corner of the CSXT property.

Fifth VRP Sampling Event

The fifth VRP monitoring event included the sampling of 17 wells. The scope of this monitoring event was reduced from previous events based on EPD's approval of the reduction in scope in October 2015. The groundwater monitoring plan was modified by reducing the monitoring well network by 10 wells (from 27 to 17) and eliminating the surface water sampling and testing. The majority of the wells eliminated, as well as the surface water sampling points, were located on the adjacent SEDA Parcel which had recently been delisted from the HSI. The remainder were located on CSXT property, well away from areas of significant groundwater impact. These sampling points had consistently demonstrated compliance with applicable remediation standards for both groundwater and surface water. The following observations are provided based upon the most current ammonia concentration data:

Ammonia was detected at concentrations exceeding the RRS in samples collected from five monitoring wells (EW-1, TMW-1, PDMW-8R, PDMW-26T, and PDMW-47). Again these results were consistent with the results of the previous sampling event. The November 2015 analytical results for those six wells above background show a decrease in ammonia concentrations in wells EW-1, PDMW-8R and TMW-1 when compared to the results of the May 2015 sampling event while the ammonia concentrations in PDMW-26T and PDMW-48 were slightly higher. The PDMW-47 result remained unchanged from May 2015. Ammonia concentrations for the remaining 11 of 17 wells sampled in May 2015 were generally consistent with recent historical data for these wells and all were below the background concentration.

Nitrate was detected at concentrations above the laboratory reporting limit in four of the 17 wells sampled (TMW-1, MW-3R, PDMW-32R and PDMW-48) in November 2015. Only TMW-1, with a nitrate concentration of 250 mg/L (down from 290 mg/L in May 2015), exceeded the drinking

water standard established by the USEPA. These results are generally consistent with the previous analytical results.

Nitrite was detected at concentrations above the laboratory reporting limit in four of the 17 wells sampled (MW-3R, PDMW-48, PDMW-32R and PDMW-46) in November 2015. None of the detected nitrate concentrations exceeded the MCLG of 1 mg/L for drinking water.

PAH sampling was limited to one monitoring well (TMW-1) for the November 2015 monitoring event. Naphthalene was detected at a concentration of 63 μ g/L in the sample collected from TMW-1, which exceeds the RRS of 20 μ g/L. This naphthalene concentration is consistent with historical results for TMW-1. No other HSRA-regulated PAHs were detected above laboratory reporting limits in the sample collected from TMW-1.

VOCs sampling was also limited to monitoring well TMW-1 for the November 2015 monitoring event. Benzene was detected at a concentration of 52 μ g/L, which exceeds the RRS of 31.2 μ g/L. In addition, total xylenes were detected at a concentration of 220 μ g/L, which is well below its RRS. The detections of benzene and total xylenes were somewhat higher than the concentrations detected during the May 2015 sampling event; however, they were generally consistent with or lower than recent historical results for TMW-1. No other VOCs were detected above laboratory reporting limits in the sample collected from TMW-1.

Groundwater samples were collected for total metals analysis from 15 monitoring wells during the November 2015 monitoring event. Total metals were detected in five of the wells, including: EW-1, MW-3R, TMW-1, PDMW-26T and PDMW-32R. Total lead was detected at or just above the laboratory reporting limit of 10 μ g/L in three samples (MW-3R, PDMW-13P and PDMW-47). None of these three lead detections exceeded the RRS of 15 μ g/L. Total arsenic was again detected only in monitoring well TMW-1 at a concentration of 150 μ g/L, which exceeds the RRS of 18 μ g/L. This result is generally consistent with recent historical results for well TMW-1. Total arsenic remains delineated in the northwest portion of the CSXT property, as it was not detected in the wells surrounding TMW-1.

Total chromium was again detected in monitoring well TMW-1 at a concentration of 32 μ g/L, which is below the RRS and consistent with historical analytical results for well TMW-1.

Follow-up Testing

In order to further investigate the condition of the groundwater and further delineate the extent of ammonia on the adjacent Spartan Hutchinson Island Ventures Property, follow-up testing was conducted in monitoring well in May and July 2016. Groundwater from this well was tested for ammonia. In each case, the ammonia concentration detected met the Type 1 RRS of 30 mg/L, with the most recent test result of 19 mg/L.

7.0 DESCRIPTION OF RESPONSIBLE PERSON FOR THE IMPACTS DETECTED AT THE PROPERTY

During the course of the various assessments conducted at the site, the extent of soil and groundwater contamination have been delineated to Type 1 RRS which defines the HSI site boundaries. Based on the available data, it is apparent that the ammonia contamination in groundwater at the property is emanating from the northern and east-central portions of the property and is mapped as migrating generally to the north and southeast, respectively, consistent with shallow groundwater flow.

Following is a summary of information currently known about the three separate industrial entities that have operated on the subject Property.

CSX Real Property, Inc. 301 West Bay Street Suite 800 Jacksonville, Florida 32202 Contact: Coley Campbell

Chevron Products Company (a division of Chevron U.S.A)
P.O. Box 1706
Atlanta, Georgia 30301
Contact: Mr. Peter Kasbohm

Powell Duffryn Terminals, Inc.
2 Commerce Street
Bayonne, New Jersey 07002
Contact: Registered Agent: Mr. Ronald R. Sprague
R Roy Enterprises, L.L.C.
P.O. Box 85
Woodbridge, NJ 07095

8.0 ACTIONS TAKEN TO ELIMINATE, CONTROL, OR MINIMIZE ANY POTENTIAL RISK AT THE SITE

A number of interim corrective actions were completed prior to Amec Foster Wheeler's involvement in the project to address localized areas where soil did not meet the applicable RRS. These interim measures are briefly described in chronological order below. **Figure 11** illustrates the locations of soil corrective actions performed at the Property prior to implementing the MCAP.

- 1. In November 1999, Applied Engineering & Sciences, Inc. (AES) excavated approximately 92.5 tons of petroleum-impacted soil from the area of PDMW-11P. Soil was disposed at the Waste Management Superior Landfill in Savannah, GA. Additionally, over 7,800 gallons of impacted groundwater were removed and disposed offsite during the project. Follow up sampling performed in October 2001 found no benzene, toluene, ethylbenzene, or xylenes (BTEX) above laboratory detection limits in samples collected at the boundary of the former excavation. The monitoring well was removed during excavation and replaced with PDMW-11R (AES 2000a).
- In November 1999, AES excavated and disposed of approximately 9.6 tons of petroleum-impacted soil from the area of PDMW-10T. Follow up sampling performed in October 2001 found no BTEX above laboratory detection limits in samples collected at the boundary of the former excavation (AES 2000a).
- 3. In November 1999, AES excavated approximately 11 tons of arsenic-impacted soil from the area of PDMW-31P. Soil was disposed at the Waste Management Superior Landfill in Savannah, GA. Confirmation soil samples demonstrated compliance with Type 4 RRS for arsenic. The monitoring well was removed during excavation and replaced with PDMW-31R (AES 2000a).
- 4. In September 2001, AES excavated and disposed of approximately 26 cubic yards (yd3) of benzene-impacted soil. Confirmatory samples were collected from the sidewalls at three locations on the perimeter and analyzed for BTEX. Results indicated concentrations below detection limits for all constituents. The excavated soil was added to the stockpiled material from the recovery trench excavation for future management. (AES 2002a).

- 5. In May 2004, BBL excavated approximately 447 tons of petroleum-impacted soil from the area of PDMW-14T. Soil was disposed at the Waste Management Superior Landfill in Savannah, GA. Confirmation soil samples demonstrated compliance with Type 4 RRS for polycyclic aromatic hydrocarbons (PAHs). The monitoring well was removed during excavation and replaced with PDMW-14TR.
- 6. In July 2005, Amec Foster Wheeler removed approximately 5,800 linear feet (LF) of underground steel piping, 2,200 tons of PSM, and 11,621 gallons of impacted groundwater from the property. PSM was disposed at the Savannah Regional Landfill in Port Wentworth, GA; piping was recycled by Southern Metal Recycling in Savannah; and groundwater was treated at Industrial Water Services (IWS) in Jacksonville, FL.

In March 2006, Amec Foster Wheeler submitted a Modified Corrective Action Plan (MCAP) to address remaining issues at the site which were not adequately addressed by the interim corrective actions that had already been undertaken. These outstanding issues related to metals-impacted soil, petroleum source material (PSM) in soil, abandoned piping and ammonia, lead, arsenic, benzene and naphthalene in groundwater.

8.1 GENERAL CONSTRUCTION METHODS

CSX-RPI contracted with Environmental Remediation Services, Inc. (ERS) to perform the soil corrective actions on the property. Amec Foster Wheeler was contracted by CSX-RPI to perform construction management and documentation. On November 13, 2006, Amec Foster Wheeler and ERS mobilized to the Site to initiate the project. Amec Foster Wheeler and ERS demobilized from the Site on May 18, 2007 after excavating approximately 48,220 tons of PSM and metals-impacted soil. Once the County determined that a Temporary Stream Buffer Variance was not required, Amec Foster Wheeler and ERS remobilized to the Site on August 28, 2007, to excavate the remaining PSM within 25 feet of the Savannah River. This excavation resulted in the removal of an additional 2,325 tons of PSM. The combined excavated tonnage resulting from both mobilizations was 50,545 tons of metals-impacted soil and PSM. The subsections below describe the general construction methods and approaches used on the project.

8.1.1 Utility Protection

The State of Georgia Utility Protection Center (GAUPC) requires 72 business hours notice for underground utility clearance for any intrusive subsurface work. As such, Amec Foster Wheeler

contacted GAUPC prior to initiation of field activities and received the appropriate utility clearances.

8.1.2 Erosion Control Measures

Amec Foster Wheeler contacted the Chatham County Engineering Department regarding the need for a land disturbance permit. Upon review of the application, the County Engineer indicated that the Site activities could be performed under the existing Permit Number 2004-039, which has been used for site excavation and grading activities since March 2004.

Upon initial mobilization to the property, ERS inspected the existing silt fence that borders the Site. In locations where the fence was damaged, new silt fence was installed in accordance with the land disturbance permit. When Amec Foster Wheeler and ERS remobilized to the property in August 2007 to conduct the excavation of the remaining PSM adjacent to the Savannah River, silt fence was placed in appropriate locations during excavation activities.

8.1.3 PROCESSES

Removal of metals-impacted soil and PSM was performed in three separate phases. During the first phase, metals-impacted soil was excavated from the ground surface to the delineated depth until confirmation samples demonstrated that the extent of metals-impacted soil were removed. Phase two included the excavation of PSM based on visual and olfactory senses. Phase three included the excavation of the remaining PSM within 25 feet of the Savannah River. Care was taken to ensure that no overburden or PSM was allowed to accidentally enter the Savannah River. The following subsections describe the general excavation methods used during the project.

Overburden Removal

Where non-impacted overburden was present, this material was stripped off the surface using an excavator equipped with a flat sand plate and stockpiled in designated non-impacted areas located nearby. The use of the flat sand plate on the excavator bucket allowed for more efficient separation of non-impacted overburden from PSM. In general, where it existed, the thickness of non-impacted overburden ranged from 6-in. to 4 ft. Overburden was used as excavation backfill during the entire course of the project.

Stockpiling and Loading

Stockpile locations were designated throughout the Site on an as needed basis depending upon trucking routes and access limitations. In general, metals-impacted soil and PSM was either live-loaded into dump trucks or stockpiled on other nearby impacted areas pending load-out. Stockpiled PSM was covered with poly sheeting when it was stockpiled for more than a day or a rain event was anticipated.

Disposal

All metals-impacted soil and PSM were profiled in accordance with requirements set forth by Waste Management, Inc. (WMI). Upon approval from WMI, the materials were transported by Lanyard Development, Inc. and Dorchester Dirt Company to Superior Landfill in Savannah, GA using non-hazardous waste manifests.

Water Handling

Over the course of the project, liquids handling was performed to control groundwater infiltration into open excavations and to address the extensive ponding of rainwater on the ground surface.

Excavation Dewatering

The depth to groundwater at the property is on average approximately 2 ft bgs. Since the excavation depths ranged from 3 to 8 ft bgs, excavations were periodically dewatered with either a vacuum truck or a trash pump to remove groundwater. When excavations were deeper or obstacles (e.g. concrete foundations or wooden pilings) slowed production, Light Non-Aqueous Phase Liquid (LNAPL) accumulated in the base of the excavation pit. The LNAPL was removed using the vacuum truck and the underlying impacted soil was scraped to remove any remaining LNAPL film on the soil. The LNAPL and impacted groundwater was stored in two 21,000 gallon frac tanks at the Site, pending disposal. Initially, the dewatering liquids were transported to IWS in Jacksonville, Florida for treatment. As the volume of water increased, Amec Foster Wheeler received approval from the City of Savannah Water Quality Control Department to dispose of the water at the City's Publicly Owned Treatment Works (POTW) located at President Street. This approval was based on the condition that the Frac tanks be arranged in series and used as settling tanks to separate the sediments and LNAPL from the water to be disposed. Oreogin, Inc. of Allenhurst, GA was contracted to transport the water to the POTW.

A total of 389,447 gallons of impacted water was transported off-site for treatment. This total included 139,047 gallons of impacted groundwater sent to IWS and 250,400 gallons sent to the POTW for treatment. The volume of water generated during the August 2007 buffer zone excavation was limited to 829 gallons and was transported to IWS. This volume is included in the numbers presented above.

Stormwater Handling

Heavy rains occurred during certain periods of the project that resulted in extensive ponding in areas slated for excavation. In order to access these areas, the standing stormwater was pumped to portions of the Site where excavation was not necessary (or had already been completed). The pumping operation was monitored to ensure that erosion did not occur and that the runoff remained on Site.

8.2 SOIL EXCAVATION AND DISPOSAL

The following areas of impacted soil were during the initial phase of the MCAP implementation.

8.2.1 Lead Areas 1-5

Lead Areas 1, 2, 3, 4, and 5 were excavated following the general methods described above. The area previously identified as Lead Area 6 was eliminated as a result of updated analytical data. A total of 1,520 tons of lead-impacted soil was excavated from five areas.

Amec Foster Wheeler used a portable XRF unit to screen soils and guide the lead-impacted soils excavation. Based on the correlation of XRF data and SW846 method 6010B data from the May 2006 delineation sampling, a screening action level for lead of 266 mg/kg was established. Screening samples were collected approximately every 25 ft along the excavation sidewalls to confirm successful removal of soil exceeding the Type 3 RRS for lead. Where excavations did not reach the groundwater table, a sample was collected from the center of each 25 ft by 25 ft grid. If the lead reading found using the XRF was less than 266 mg/kg, the sample was sent to STL for lead confirmatory analysis by SW846 method 6010B.

Any location where either the XRF screening result exceeded 266 mg/kg for lead or the STL analytical result exceeded 400 mg/kg for lead was marked for further excavation. These locations were excavated in 5 to 10-ft "cells" and new confirmation samples were collected and screened/analyzed as described above. Elevated arsenic concentrations were detected in XRF screening samples from Lead Areas 1B, 2A, 3B, 4A, and 5C (above 20 mg/kg on the XRF). In

each of these areas, confirmation samples were sent to STL for arsenic analysis as well as lead analysis.

Table 8 presents the tabulated XRF screening results and corresponding STL analytical results. Table 9 presents the confirmation sample results that demonstrate the extents of lead-impacted and arsenic-impacted soil in the five areas has been removed to meet the Type 3 RRSs. It should be noted that all confirmation samples were analyzed using SW846 methods, and that XRF was used only as a pre-screening tool. The overall excavation boundaries of all metals excavation areas are presented on **Figure 12**. **Figures 13** through **23** illustrate the individual excavation boundaries of each area and the final confirmation sample results.

8.2.2 Arsenic Area 1

The excavation of Arsenic Area 1 involved removing a 50 ft by 50 ft square area around PDMW-31R down to 4 ft below grade into the water table. The area was dewatered by removing water from PDMW-31R before and during excavation of the 50 ft square area. The excavation was conducted to remove arsenic-impacted soil present in the vicinity of PDMW-31R below the water table that could be impacting groundwater. The remainder of the Arsenic Area 1 excavation was conducted as a surface soil scraping down to 6 in. bgs in areas where laboratory analytical results exceeded the Type 3/4 RRS of 38 mg/kg. A total of 700 tons of arsenic-impacted soil was excavated from this area.

In accordance with the March 14, 2006 NOD response letter (AMEC 2006a), confirmation samples were collected in Arsenic Area 1 for both arsenic and lead. Initially, samples were screened with an XRF. As with the lead areas, AMEC used a screening action level of 20 mg/kg for arsenic and 266 mg/kg for lead. However, as the program progressed in Arsenic Area 1, the correlation between the XRF readings for arsenic and the STL analytical results was found to be very poor. As a result, AMEC discontinued the XRF screening process in this area and started sending all samples to STL for arsenic and lead analyses by SW846 method 6010B. Any location where the STL analytical result exceeded the Type 3/4 RRS was marked for further excavation. These locations were excavated in 5 to 10-ft "cells" and new confirmation samples were collected and analyzed.

Table 4 presents the tabulated XRF screening results and corresponding STL analytical results. Table 5 presents the confirmation sample results demonstrating that impacted soil in Arsenic Area 1 has been removed to meet the Type 3/4 RRSs for arsenic and lead. Once again, all

confirmation samples were analyzed using SW846 methods and XRF was used only as a prescreening tool. **Figure 22** illustrates the excavation boundaries and the final confirmation sample results.

In accordance with the March 14, 2006 NOD response letter (AMEC 2006a), confirmation samples were collected in Arsenic Area 1 for both arsenic and lead. Initially, samples were screened with an XRF. As with the lead areas, AMEC used a screening action level of 20 mg/kg for arsenic and 266 mg/kg for lead. However, as the program progressed in Arsenic Area 1, the correlation between the XRF readings for arsenic and the STL analytical results was found to be very poor. As a result, AMEC discontinued the XRF screening process in this area and started sending all samples to STL for arsenic and lead analyses by SW846 method 6010B. Any location where the STL analytical result exceeded the Type 3/4 RRS was marked for further excavation. These locations were excavated in 5 to 10-ft "cells" and new confirmation samples were collected and analyzed.

Table 8 presents the tabulated XRF screening results and corresponding STL analytical results. Table 9 presents the confirmation sample results demonstrating that impacted soil in Arsenic Area 1 has been removed to meet the Type 3/4 RRSs for arsenic and lead. Once again, all confirmation samples were analyzed using SW846 methods and XRF was used only as a prescreening tool. **Figure 22** illustrates the excavation boundaries and the final confirmation sample results.

8.2.3 PAH Confirmation Soil Sampling

Soil confirmation samples for PAH analysis were required in any area where groundwater data historically indicated naphthalene at concentrations exceeding the Type 3 RRS for groundwater.

Based on the July 2004 and March 2006 groundwater analytical results, naphthalene was present at concentrations exceeding the Type 3 RRS in groundwater samples collected from PDMW-14T, PDMW-39, and PDMW-42. During the excavation program, eight confirmation samples were collected in locations where excavation sidewalls were in the vicinity of these wells. The analytical results presented in Table 10 and illustrated on **Figure 24** confirm that PAH-impacted soil in this area has been removed.

8.2.4 Petroleum Source Materials

After excavating the metals-impacted soil areas, Amec Foster Wheeler and ERS initiated the PSM excavation program. In accordance with the requirements of the GAEPD, PSM was excavated based on visual screening of materials. Once a large enough area was excavated down to clean native soil, test pits were excavated every 20 ft to assess the presence of deeper PSM layers buried under the soil that visually appeared to be clean. In areas where the nature of the PSM was questionable, the material was placed in a jar of water to assess whether LNAPL or a sheen formed.

As previously documented in the MCAP, PSM Area 1 was excavated in 2005. During the November 2006 mobilization, excavation of PSM Areas 2, 3, and 4 was planned. During excavation of Arsenic Area 1, a fifth PSM Area was identified and designated as PSM Area 5. During excavation of Lead Area 4, PSM Area 6 was identified. PSM Area 7 was discovered during the removal of a previously identified underground steel pipe. Discovery of these additional PSM areas led AMEC to perform the Site-wide investigation documented in Section 5.5. As a result of the investigation, PSM Areas 8 through 13 were identified. Table 11 summarizes the area and depth ranges of each PSM Area. Approximately 48,325 tons of PSM were removed from the Site from November 2006 through August 2007. **Figure 23** illustrates the excavation boundaries of each PSM area.

The following bullets summarize several notable observations or occurrences encountered during the PSM excavation program:

- Several concrete structures were encountered during the PSM excavation in PSM areas 3, 10, and 11. Some of the concrete structures contained free flowing thick amber brown to black PSM. The heavily stained concrete was excavated and was mixed with PSM and disposed at WMI. Non-stained concrete was placed in the excavation pit and covered with backfill material.
- During excavation of PSM Area 4, it became apparent that PSM extended up to the
 property line that is shared with the parcel referred to as "SEDA Parcel B". AMEC
 contracted a licensed land surveyor to demarcate the property line. PSM was
 excavated in PSM Area 4 on the CSX-RPI property, up to the SEDA Parcel B property
 line. A 1-ft-thick layer of viscous amber brown to black PSM with a petroleum odor

was apparent at the edge of property line at about 4 ft bgs. This material was not removed because it was not on CSX-RPI property.

- Cross ties and wooden pilings were encountered in PSM Areas 2, 3, 4, 5, and 6 during excavation activities. Some of the cross ties were associated with a former rail line that ran through a portion of the Site. Other cross ties were apparently used for structural support of former site features such as bulk chemical and petroleum storage tanks. Where practical, the cross ties were completely excavated when encountered. The majority of the wooden pilings in PSM Area 2 extended at least 12 ft bgs. The majority of these cross ties were broken off at the base of the excavation, where no PSM was identified.
- Based on the results of the April 2007 site-wide investigation and the implementation of the large-scale excavation program, PSM has been removed from the Site to the extent practicable. In certain areas within PSM Areas 3 and 6, soil containing PSM was left in place to provide structural support for existing telephone poles (Figure 23). A radius of approximately 5 ft was left in place around four of these telephone poles for safety reasons. It is estimated that between 20-40 tons of PSM remains at these locations combined.

8.2.5 Abandoned Piping

Throughout the excavation project, abandoned piping was removed, staged, and disposed. In addition to the 1,500 linear feet of piping that was previously identified, approximately 700 linear feet of additional piping was encountered. This additional piping was primarily either steel or transite piping that was not detected using the geophysical survey methods employed during the 2005 survey. The piping generally ranged in size from 2 to 6-in. diameter and was encountered between 2 and 4 ft bgs. One exception was a 75-ft section of 24-in. steel pipe filled with petroleum product that was encountered in PSM Area 2. The condition of the majority of the piping was poor, with much of it containing holes. None of the piping had been properly abandoned and most contained thick black residual petroleum material. During pipe removal, the petroleum material was allowed to drain onto the PSM stockpiles. Care was taken to ensure that draining pipes were managed properly and petroleum product was contained on existing PSM. Transite pipe was wrapped in plastic sheeting as requested by WMI. The piping was disposed along with the PSM at WMI. It should be noted that only piping that was identified by ground penetrating radar (GPR) or was encountered during excavation activities was removed.

Figure 25 illustrates all of the underground piping that was removed from the Site in 2005 and 2006/2007.

8.3 SITE RESTORATION

Excavations were backfilled using both clean overburden from on-site and silty sand from an off-site borrow pit operated by Lanyard Development, Inc. Backfill material was placed in the excavations and compacted using a combination of the excavator bucket, a front end loader, and a bull dozer. Approximately 48,150 tons of clean borrow material was brought to the Site to replace the excavated PSM and metals impacted soil. The borrow material was analyzed for PAHs, diesel range organics, and Resource Conservation and Recovery Act (RCRA) 8 metals prior to being accepted for on-site use as backfill.

After backfilling, a hyrdroseed mixture was applied to the ground surface as part of the Site restoration activities. The only exception to this is the area within 25 feet of the Savannah River, which was restored using grass seed and a hand spreader. Due to an unseasonably dry Spring (3.7 inches of rain vs. an average of 10.6 inches) the grass did not establish a suitable vegetative cover. ERS applied a second hydroseed mixture to the Site the week of May 14, 2007 and watered the grass on a bi-weekly basis. ERS placed straw mulching across these areas in August 2007 in accordance with the Land Disturbance Permit for the Site. This met the stabilization requirements of the permit.

The PSM excavation activities required removing the gravel road that provides access to the Savannah Marine Services facility. Once excavation of the road area was complete, a new gravel road was constructed following the same general alignment and elevation as the original road. The road was constructed by backfilling each excavated area in 8 inch lifts using the bulldozer and a sit-on roller. The road was constructed with a 12-in. gravel drainage layer and a 6-in. crush-and-run road surface.

8.4 GROUNDWATER CORRECTIVE ACTION

Since the original CSR was published in 1998, removal of ammonia from groundwater has been the focal point of groundwater corrective actions at the Property. Other regulated substances present in groundwater at concentrations exceeding the applicable RRS are generally colocated with elevated ammonia concentrations, and would therefore be addressed through the ammonia corrective action.

In accordance with the approved MCAP, Amec Foster Wheeler installed a groundwater remediation system to address impacted groundwater in the northern portion of the site. The primary COC in this area of the site was ammonia; however, elevated VOC and PAH concentrations were also located in the area of the highest ammonia impact and would also be addressed by the remediation system.

8.4.1 Groundwater Remediation System Construction

The groundwater remediation system was installed between November 2007 and February 2008 in accordance with the design documents prepared by Amec Foster Wheeler. The remedial action objective of the groundwater remediation system is to reduce the concentrations of the compounds of concern (COCs), primarily ammonia, below the defined RRS.

The extraction system was designed to draw groundwater from a field of 21 wells, and carry it to a central location where it could be monitored and sampled before being discharged into a sanitary sewer manhole at the Site boundary for conveyance to the City of Savannah's President Street Wastewater Treatment Plant (WWTP).

System construction involved installing 21 pumping wells, excavating trenches and installing subsurface piping and electrical conduit, placement of the system shed, and installing a tap into the nearby sanitary sewer manhole. Each well riser was installed in a precast concrete well vault with secure hatch door. The extraction pump for each well is located within the well vault, which also contains piping, tubing and appurtenances for the extracted groundwater, tubing and appurtenances for the compressed air being supplied to the extraction pump, and an electrical junction box for the conductivity/level probes that are installed within the riser.

Each pumping well fed into a dedicated subsurface line that connects the well to a centralized equipment shed. The equipment shed contained an air compressor and piping manifold to supply compressed air to the extraction well vaults. Extracted groundwater is discharged into the nearby sanitary sewer manhole via a second piping manifold. The automated system is monitored and controlled by a process logic controller (PLC) located within the control panel inside the equipment shed. The pressure of the compressed air, the pH, flow rate and total accumulated volume of the extracted groundwater and the internal temperature of the shed are continuously monitored by the PLC. Unfavorable conditions will result in a system interlock that effectively shuts down the extraction process, with an automated alert being remotely communicated to the operator for investigation and resolution.

8.4.2 System operation

Following a final inspection, the system was started up on 6 March 2008. Between April 2008 and October 2008, the treatment system was operated using its original design. The treatment system was shut down between November 2008 and September 2009 to conduct evaluation, upgrading, and optimization and was restarted in September 2009.

After upgrading and restarting the remediation system, a significant mass of ammonia was removed from groundwater. During the reporting period, over 2.1 million gallons were recovered and over 1900 pounds of ammonia was removed during the reporting period, with almost 50 percent of that being within the four months post-upgrade.

During 2010, the groundwater remediation system was in operation for 10 of 12 months. From mid-August through mid October 2010, the remediation system was not in operation for maintenance and repair purposes. The remediation system was brought back on-line in mid-October and operated nearly continuously through the end of 2010. During the reporting period, over 2.1 million gallons were recovered and approximately 1,868 pounds of ammonia was removed from groundwater.

The groundwater remediation system was in operation for 278 days in 2011. The remediation system was shut down from March 1 through May 8, 2011 for maintenance and repair purposes. Extensive system maintenance was also performed in November and December 2011, which decreased the volume of groundwater recovered from the system during this period. The remediation system was also shut down for brief periods of time throughout the year to perform maintenance and repair activities. During the reporting period, over 1.7 million gallons of groundwater containing ammonia were recovered and approximately 1,219 pounds of ammonia were removed from groundwater.

Operation of the groundwater remediation system was suspended upon submission of the VRP application in June 2012.

9.0 RISK REDUCTION STANDARDS

The subject site is located in Savannah, Georgia in an area of former industrial properties. The property, as well as adjoining properties to the north, east and south are zoned for heavy industrial use and are classified as "non-residential" property as defined under HSRA. The Spartan Hutchinson Island Ventures property to the west was previously zoned for heavy industrial use but is currently zoned for residential use.

As discussed in Section 4.2, HSRA-regulated substances were detected in soil and groundwater samples obtained during various assessments conducted by Amec Foster Wheeler and others. Therefore, risk reduction standards (RRS) were calculated for these substances in accordance with the HSRA Rules and are summarized below. See Appendix C for complete RRS calculations.

9.1 SOIL CRITERIA

A total of 28 HSRA-regulated constituents were detected in soil during Amec Foster Wheeler's assessments. Type 1-4 RRS for all constituents detected in soil on the CSXT property were previously calculated for the Property as presented in the 2009 Revised CSR and are summarized below in Table 9-1 along with the highest concentration of each constituent remaining in soil on the property after remediation.

TABLE 9-1 - RISK REDUCTION STANDARDS FOR SOIL

Regulated Substance	Background	Type 1 RRS	Type 2 RRS	Type 3 RRS	Type 4 RRS	Maximum Concentration Detected (pre-remediation)	Maximum Concentration Remaining on CSXT Property*			
PAHs, mg/kg										
Acenaphthene	0.092	300	410	300		0.18	<1.1			
Acenaphthylene	0.17	130	0.01	130		1.4	<1.1			
Anthracene	0.21	500	3089	500		4.3	4.3			
Benzo(a)anthracene	0.156	5.0	8.3	5.0		2.3	<1.1			
Benzo(a)pyrene	0.17	1.6	1.2	1.6	7.8	3.6	<1.1			
Benzo(b)fluoranthene	0.425	5.0	12.5	5.0		1.1	<1.1			
Benzo(g,h,i)perylene	0.152	500	0.77	500		1.1	0.083			
Benzo(k)fluoranthene	0.131	5.0	125	5.0		1.2	<1.1			
Chrysene	0.581	5.0	843	5.0	7,200	25	0.11			
Dibenzo(a,h)anthracene	0.099	2.0	1.2	5.0		0.26	<1.1			
Fluoranthene	0.4	500	2222	500		1.4	0.15			
Fluorene	0.17	360	370	360		1.6	0.23			
Indeno(1,2,3-cd)pyrene	0.142	5.0	12	5.0		0.94	<1.1			
Naphthalene	0.028	100	1.32	100		120	0.11			
Phenanthrene	0.115	110	0.07	110		24	0.38			
Pyrene	0.562	500	2178	500		170	0.15			
VOCs, mg/kg										
Benzene	0.0085	0.5	0.05	0.5	9.1	0.035	NT			
Ethylbenzene	0.0085	70	15.7	70		0.16	NT			
Toluene	0.0085	100	14	100		0.51	NT			
Inorganics, mg/kg										
Arsenic	32.18	20	5.84	38	38	36	33			
Beryllium	1.5	2	63	3		1.9	NT			
Cadmium	0.57	2	7.5	39		6.7	NT			
Chromium	123.6	100	18.1	1,200		66.8	NT			
Lead	56.45	75	270	400	1,320	1,400	390			
Mercury	0.33	0.5	2.09	17		4.6	NT			
Nickel	46.39	50	130	420		24.3	NT			
Zinc	103.86	100	2488	2,800		371	NT			
Ammonia	1.58	238		238		74	NT			

 $\mu g/kg\,$ - $\,$ micrograms per liter (equivalent to parts per billion)

Note: Shaded values exceed Type 2 RRS

*Based on 2006/2007 confirmation sampling

NT – No confirmation samples tested as RRS exceedances were not identified.

As documented in the 2009 CSR, on the soil testing data collected to date and following the soil remediation measures described in Section 8.0, the subject site is currently in compliance with applicable Type 3 RRS for regulated constituents in soil.

9.2 GROUNDWATER CRITERIA

Type 1-4 RRS for all constituents detected in groundwater on site are presented below in Table 9-2. HSRA RRS criteria for groundwater for the detected constituents are shown compared to their highest concentrations detected on the property.

TABLE 9-2 – RISK REDUCTION STANDARDS FOR GROUNDWATER

Regulated Constituent	Background	Type 1/3 RRS	Type 2 RRS	Type 4 RRS	Maximum Historic Concentration Detected	Highest Concentration Detected During VRP Monitoring				
PAHs, μg/L										
Acenaphthene	1	2,000	940	6,100	520	BRL				
Acenaphthylene	1.4	1.4	ND	510	200	BRL				
Anthracene	0.2	0	4,700	5,100	59	BRL				
Benzo(a)anthracene	0.2	0.1	2.5	3.9	19	BRL				
Benzo(a)pyrene	0.2	0.2	0.25	0.39	0.62	BRL				
Benzo(b)fluoranthene	0.2	0.2	1.2	0.65	0.26	BRL				
Benzo(k)fluoranthene	0.131	10	12	39	1.3	BRL				
Chrysene	0.2	0.2	120	65	18	BRL				
Fluoranthene	0.5	1,000	630	4,100	120	BRL				
Fluorene	0.5	1,000	630	4,100	270	BRL				
Naphthalene	1	20	1.4	20	6,200	63				
Phenanthrene	0.22	0.22	ND	510	360	BRL				
Pyrene	0.5	1,000	470	3,100	84	BRL				
VOCs, μg/L										
Benzene	1	5	4.5	31	160	81				
Ethylbenzene	1	700	15	29	650	BRL				
Toluene	1	1,000	880	5,200	1,300	BRL				
Xylenes	2	10,000	59	290	2,500	0.42				
Inorganics, µg/L										
Arsenic	18	50	0.57	50	570	160				
Chromium	13	100	1.7	5.7	100	BRL				
Lead	7	15	ND	15	210	39*				
Nickel	130	100	310	2,000	170	100				
Zinc	960	2,000	4,700	31,000	2,100	550				
Ammonia	15	30	30	30	18,000	4,300				
Nitrate	NE	10			290	290				

μg/L - micrograms per liter (equivalent to parts per billion)
Note: Shaded values exceed one or more of the Type 1-4 RRS

^{*}Recent lead testing results were all compliant with Type 1 RRS

Based on the groundwater testing data available to Amec Foster Wheeler and presented herein, groundwater at the property currently complies with Type 1 or 2 residential RRS except for the following regulated substances: ammonia, arsenic, lead, benzene, naphthalene and nitrate. There are no regulated substances detected in groundwater on parcels adjacent to the CSXT property that exceed the Type 1 or Type 2 RRS as of the November 2015 sampling event and retest of PDMW-47 in April and July 2016.

10.0 EXPOSURE PATHWAYS

An examination of potential exposure pathways and receptors was presented in previous reports and, in part, supplemented by recent research. Based on the data collected to date, the potential exposure pathways include:

- Potential exposure to regulated constituents in soil;
- Potential exposure to regulated constituents in groundwater;
- Potential exposure to regulated constituents in surface water;
- Potential exposure to regulated constituents due to vapor intrusion from impacted soil or groundwater beneath occupied buildings.

The CSXT property is zoned heavy industrial and is located across the Savannah River from downtown Savannah, Georgia. The Property is currently undeveloped. Nearby property uses include an office building and a golf course to the north and commercial properties along the river to the south and east. The property to the west was previously occupied by a concrete plant but is currently vacant. Unauthorized access to the property is controlled through a partial enclosure provided by a fence which surrounds the property, although the fence has been damaged in some areas.

In order to eliminate certain exposure pathways, engineering and institutional controls will be implemented on the property in the form of an Environmental Covenant that will (1) restrict the use of groundwater for drinking, (2) restrict residential use of the property without further corrective action (i.e. soil remediation or engineering controls). The covenant will include a provision for annual certification of continued compliance.

10.1 SOIL CRITERIA

No soil impacts have been documented on parcels adjacent to the CSXT property. Based on the industrial use of the property it is considered non-residential and, therefore, potential receptors include industrial workers, construction workers and utility workers. The applicable non-residential RRS for all constituents detected in soil on site are summarized in Table 9-1.

As documented in Section 9.0, only lead and arsenic remain in soil samples above the residential RRS, along with a small amount of visibly impacted petroleum source material surrounding four utility poles. Of the 28 regulated constituents detected in soil, all were at

concentrations below their applicable residential RRS, except for arsenic and lead in the following samples: Arsenic - AS1A-E02-3", AS1A-E03-6", AS1A-N07A-3", AS1A-S01-3" and AS1A-W06-3", Lead - PB3B-E01-6", PB3B-E02-6", PB3B-N04-1', PB4A-E02-6", PB4A-N01-6", PB4A-W01-6", PB4A-W02-6" and PB5C-N02-1'. All arsenic and lead concentrations comply with non-residential RRS. As such, the subject property satisfies non-residential RRS criteria calculated for potential exposure to soil.

10.2 GROUNDWATER

Amec Foster Wheeler compared recent groundwater testing data from the Property to Type 1-4 RRS for the constituents detected in groundwater on the site. Based on the November 2015 groundwater testing data and a retest of PDMW-47 in 2016, the property exceeds groundwater Type 1 or Type 2 RRS for ammonia, nitrate, benzene, naphthalene and arsenic; however, there are no exceedances of Type 1 groundwater RRS on surrounding properties. Groundwater on Hutchinson Island is not used for drinking water and no drinking water wells are known to exist on Hutchinson Island. In addition, owners of property are prevented from using groundwater as a drinking water source due to a Chatham County Ordinance prohibiting the installation of drinking water wells in areas served by municipal water systems. The property will comply with Type 4 RRS with controls upon execution of an Environmental Covenant that restricts groundwater usage. For these reasons, the groundwater exposure pathway for properties comprising the site is incomplete.

As discussed in Section 3.0, the site lies in a hydrogeologic setting where groundwater typically consists of an unconfined surficial aquifer, underlain by an upper confining unit and the Floridan aquifer. Regional hydrogeologic conditions at the property and surrounding areas indicate the first potable water is found in the Upper Floridan aquifer at least 300 feet below the site elevation. This aquifer is separated by an approximately 200 feet thick confining unit of the Floridian aquifer, reinforcing the conclusion that the exposure pathway for human consumption of impacted groundwater is incomplete.

Based on the groundwater data obtained during previous assessments, groundwater concentrations are below the risk reduction standards for construction and utility workers in the event that ground-disturbing activities intercept groundwater in the future. Commercial/industrial workers are not expected to come into contact with groundwater. Therefore, the exposure pathway of any workers is incomplete.

In order to evaluate the risk that regulated constituents in groundwater could impact a potential receptor within 1,000 feet of the downgradient extent of the plume and to estimate the time required to achieve compliance with applicable RRS, Amec Foster Wheeler applied the BIOCHLOR software to the release of ammonia in groundwater on site. BIOCHLOR utilizes a combination of site specific data and literature values to determine the various physical properties of the plume and the migration potential of dissolved constituents. The model was developed to predict the migration pattern of a contaminant plume where no engineering controls have been implemented and monitored natural attenuation (MNA) is the groundwater remedial option. Refer to Appendix D for model output sheets and supporting information.

10.2.1 Nitrification

Ammonia (NH₃) within the subsurface predominately exists in an ionized (protonated) state of ammonium (NH₄⁺) under the pH and temperature conditions observed at the site (pH typically between 6 and 7 and groundwater temperatures between approximately 18 and 24 degrees C). These conditions are also optimal for oxidation (nitrification) of ammonium, the primary mechanism for ammonium degradation. Ammonium initially oxidizes to nitrite (NO₂-) which is catalyzed by Nitrosomonas bacteria. Nitrite is then oxidized by Nitrobacter bacteria resulting in the formation of nitrate (NO₃⁺). Nitrate is generally stable in the subsurface environment under aerobic conditions and can persist for long periods of time if it is not removed via plant uptake or discharged to surface water bodies. The very low nitrate concentrations outside of the immediate source area indicate that significant uptake of nitrate is likely in the heavily vegetated marsh located on the SEDA Parcel B. The biodegradation of ammonium and nitrite are typically maximized under aerobic conditions and may be halted under anaerobic conditions. However, anaerobic oxidation of ammonium (anammox) and its byproducts can occur under anoxic conditions via biological denitrification. This process is facilitated by the absence of oxygen and the presence of organic carbon, and reduced sulfur or iron (Buss, S.R., Herbert, A. W., Morgan, P. and Thornton, S.F, 2003). At EPD's request, nitrite analysis has been included in the suite of testing parameters during the last two sampling events to provide additional data regarding ammonia degradation.

10.2.2 Dissolved Oxygen

Review of well purging records indicates concentrations of dissolved oxygen (DO) in the shallow groundwater varies considerably both across the site and seasonally, with the higher DO concentrations observed during the summer sampling events. During the current sampling

event, most wells contained low concentrations DO at the time of sampling. There does appear to be some correlation between DO and nitrite concentrations. Typically, nitrite was not detected in samples exhibiting low DO concentrations (<1.0 mg/L) and the highest nitrite concentrations were detected within wells located in tidal marsh areas. The daily influx of surface water may serve to oxygenate the shallow groundwater in the marsh area. Such conditions would enhance the biodegradation of ammonium within the marsh area. This relationship does not hold in all cases, however, as the highest nitrite concentrations were detected in two wells (PDMW-7P and PDMW-48) which also exhibited low DO. Both of these wells were located in marshy areas which indicates other factors, such as anammox may have locally influenced the formation of nitrite.

10.2.3 Retardation

Subsurface migration of ammonia can also be heavily influenced by retardation effects from aquifer materials. Specifically, the presence of even small amounts (0.1%) of clay can result in retardation factors of 2-3.5 due to cation exchange or adsorption effects. The retardation effects are most pronounced with mixed layer clays such as montmorillonite, which are not expected in this geologic setting. However, double layer clays such as illite and even single layer clays, such as kaolinite (which would be expected on the site) will have a significant retardation effect. As noted in boring logs for site monitoring wells, the aquifer material believed responsible for the bulk of shallow groundwater migration consists primarily of fine to medium grained sand, but minor to moderate amounts of clay are also present throughout the site, particularly in the marshy areas; although the precise mineralogy of these clays has not been determined. The soils within the marshy areas were observed to contain significant amounts of clay generally throughout the depth of the wells in this area. Such conditions represent lower hydraulic conductivities which would be consistent with reduced migration of the ammonia plume across the marsh as is noted with the sharp drop off in observed ammonia and nitrate concentrations between the apparent source area and any wells located within the marsh (MW-3R, PDMW-48, PDMW-49, PDMW-50, PDMW-51 and PDMW-52).

10.2.4 Degradation

The presence of low concentrations of ammonia and nitrate in groundwater and the surface waters of the canal provide evidence that ammonia degradation is occurring on the site. However, much of the nitrate previously detected in the surface water may be attributable to influx from the Savannah River as nitrate concentrations in groundwater were generally below

detection limits except in those wells with the highest ammonia concentrations. As described in previous reports, significant variations in nitrate concentrations in surface water were noted between low tide and high tide which supports the conclusion that the Savannah River has a substantial influence on nitrate concentrations in the surface water in the canal. Unlike the nitrate results, nitrite concentrations in surface water were generally higher in the low tide samples, indicating primary input from groundwater rather than surface water.

10.2.5 Release History

The initial release of ammonia to groundwater was assumed to have occurred approximately 40 years ago. This date was selected as a reasonable starting date based on the use of the property for chemical storage (including liquid fertilizer) by Charter International Oil Company (Charter) beginning in 1973. The storage of ammonia likely ceased when Powell Duffryn took over the site in 1982, but definitely ceased by the early 1990s when Powell-Duffryn vacated the site and the on-site storage tanks were removed. As such, the release was modeled as emanating from a decaying source as all ongoing sources have long since been removed and the ammonia will undergo biotransformation to nitrite and then to nitrate.

10.2.6 Decay Constant

The ammonia decay constant was calculated by preparing a semi-log plot of ammonia concentration vs. time in TMW-1. The slope of the trend line provided the initial model input value. However, the value obtained appeared to be very conservative as it would result in predicted source area concentrations well in excess of what is currently observed. The decay constant valued may have been affected by the previous operation of the remediation system. Therefore, the decay constant was modified somewhat to more closely match observed conditions.

10.2.7 Model Results

Due to the groundwater flow pattern, it was necessary to prepare two models. One model considers the ammonia fate and transport to the north-northwest toward the drainage canal and a second model considers the ammonia fate and transport to the southeast toward the Savannah River.

The northward trending plume model illustrates the migration of ammonia from the source area near TMW-1 toward the drainage canal. An ammonia concentration of 18,000 mg/L was established as an original source area concentration to adjust model input parameters and

establish a decay rate that reasonably matches current field observations. This value represents the highest concentration of ammonia detected on site to date. We note that the exact location and size of the original source area or areas is not known. In addition, the heterogeneity of the aquifer materials (e.g., the hydraulic conductivity measured on site can vary by up to two orders of magnitude) introduces a component of variability as well. For this reason, an average hydraulic conductivity of 7.8 x 10⁻⁴ cm/sec, was calculated from 2005 slug test results from TMW-1, TMW-3T and PDMW-22T in the northern portion of the site.

The highest measured ammonia concentration of 18,000 mg/L was utilized as the initial concentration and the model was run over a 120-year time span. The attached output sheets illustrate that after 40 years (i.e. now) the predicted ammonia concentrations generally correspond to those currently observed in TMW-1 and in the area to the north. The northerly plume is modeled between the assumed source area around TMW-1, and PDMW-48 and PDMW-49, the point of demonstration wells located immediately south of the canal. The May 2015 sample result for PDMW-49 was utilized in the current model as this was the most recent data available for this well.

Ammonia concentrations in groundwater predicted by the model were compared to the previously approved risk reduction standard of 30 mg/L. The model output predicts a maximum ammonia concentration in PDMW-49, immediately south of the canal, of approximately 24, mg/L, which should occur approximately 10 years into the future. The predicted maximum ammonia concentration will remain below the RRS of 30 mg/L in the area north of the canal. Although the predicted maximum ammonia concentration of 24 mg/L exceeds the approved ecological criteria for surface water, this does not take into account the significant dilution effects associated with the twice daily influx of fresh surface water from the Savannah River.

The model was also run with the starting concentration of ammonia increased to the point at which the predicted concentration in PDMW-49 would exceed the RRS. As shown on the attached output, an ammonia concentration of 35,000 mg/L would be required for PDMW-49 to exceed the RRS of 30 mg/L. This is more than twice the highest concentration historically detected and more than eight times the highest concentration detected during the VRP monitoring period.

The southward trending plume model run illustrates ammonia migration from the area around EW-1, which is the area of highest observed ammonia concentration located south of the assumed source area around TMW-1. An ammonia concentration of 1,100 mg/L was utilized as

a starting concentration as this was the highest ammonia concentration recorded in this portion of the site. An average hydraulic conductivity of 3 x 10⁻³ cm/sec was utilized for the southern model. This value was calculated from slug test results obtained from PDMW-10T, PDMW-24T and PDMW-15T which are located in the southern portion of the site. The modeled flow path utilized EW-1 as the source area, and included MW-10R and PDMW-46P to the east-southeast, the direction of groundwater flow in this area as depicted on **Figure 4**, rather than a direct path to the river. We note that the exact flow path is difficult to determine in the area around EW-1 as it is located near the groundwater divide in the central portion of the site and slight variations in the water table configuration can alter the flow direction from EW-1. In order to provide a conservative model, a flow path approximately 1,200 feet long, generally toward the river was assumed. The model output continues to predict that the ammonia concentration reaching the river will remain well below the RRS into the foreseeable future.

The highest concentration of ammonia to reach the river is predicted to be less than 1 mg/L, which are modeled to be occurring now. Ammonia concentrations at the River are predicted to remain at approximately these same levels for the next 15 to 20 years before declining. The source area concentration was increased to evaluate the maximum concentration necessary to result in an exceedance of the RRS at the river. A source area ammonia concentration of 580,000 mg/L was necessary for an exceedance of the RRS at the Savannah River to occur. This concentration is over two orders of magnitude higher than has ever been observed in the area around EW-1.

10.2.8 Model sensitivity

Sensitivity analysis of the BIOCHLOR model input parameters was performed by increasing and decreasing their baseline values for the calibrated model. The results of the analysis are shown in Table A for monitoring well PMW-49 which is the point of demonstration well for the northern plume which represents the most significantly impacted groundwater at the site. This well is adjacent to the drainage canal and therefore is most representative of potential groundwater impacts on the surface water quality.

For modeling purposes, TMW-1 and EW-1 have been assumed to represent the source locations for the northern and southern plume migration, respectively; although, based on the previous testing from EW-1, this may not be the case. In the case of TMW-1, the highest historic concentrations was utilized as the initial ammonia concentration.

The model was developed by inputting a combination of field-measured parameters and literature values into the model which were then adjusted until the constituent distribution curves reasonably matched the groundwater conditions measured at the site as described in previous reports. Those same input parameters were then utilized in longer duration models to predict concentrations of ammonia over time.

10.2.9 Model validation

As illustrated on the attached outputs from the BIOCHLOR model, the model predicts that after approximately 40 years (i.e. now), the ammonia concentrations modeled as emanating from the TMW-1 location is a close match to the conditions currently observed in downgradient wells, including previous results from those wells along the canal and in the marsh, which have been eliminated from the sampling program. Results from the point of demonstration well for the southern plume also provide a relatively close match to the conditions predicted for the southern plume. Modeled concentrations for both nitrate and nitrite, when compared with field conditions indicate that the biotransformation of ammonia to these degradation products is very slow and that the observed downgradient conditions appear to be related to migration with minimal biotransformation. With the exception of the source area well itself, TMW-1, no nitrate concentrations have been observed on site approaching its MCL.

10.2.10 Predictions

The results of the groundwater fate and transport modeling continue to indicate that the migration of ammonia, nitrate and nitrite in either the northerly or southerly directions will not result in exceedences of the RRS in the foreseeable future either at the drainage canal or at the northern hypothetical point of exposure (POE) located 1,000 feet to the north or at the southern hypothetical POE located at the Savannah River boundary. Based on the model, the furthest extent of the plume is approximately 900 feet from the source area which will not occur until approximately 110 years from now. The concentrations predicted at that time are less than 1 mg/L, well below the Type 1 RRS. The furthest extent of ammonia concentrations in excess of the Type 1 RRS is approximately 300 feet downgradient of the source area, which is predicted to occur approximately 10 years from now.

For these reasons, the groundwater exposure pathway is incomplete. Also, the proposed filing of an Environmental Covenant will restrict the use of groundwater on the property where the only exceedances of Type 1 groundwater RRS currently exist.

Based on the information obtained, the groundwater contaminant plume exceeding Type 1/3 RRS for groundwater is limited to the property itself. Fate and transport modeling predicts the plume to be generally stable so that future significant migration will be negligible. Therefore, exposure to contaminated groundwater is considered unlikely in the site vicinity due to the fact that local properties are all connected to municipal water supplies. Groundwater fate and transport modeling have demonstrated the groundwater conditions will not result in exceedances of drinking water standards within 1,000 feet downgradient of the current extent of the plume or Georgia in-stream water quality standards. As such, the properties comprising the site are in compliance with appropriate groundwater criteria under the VRP.

10.3 NO ON-GOING SOURCE

With the demolition of the bulk storage facility in the 1980s and the removal of petroleum source materials and metals-impacted soils in the various corrective actions conducted between 1999 and 2007 the known ongoing contributions to subsurface impacts have been eliminated, as documented in the 2008 Revised CSR. Additionally, no light non-aqueous phase liquid (LNAPL) has been detected on site during numerous groundwater monitoring events. The Property is currently undeveloped. As described in the 2008 Revised CSR, based on previous certification of compliance with RRS for soil, with the exception of small amounts of soil surrounding four utility poles, no additional source materials remain on the Property which would require removal.

10.4 ON-SITE VAPOR INTRUSION

Amec Foster Wheeler evaluated the potential impact of soil gas on future indoor air quality for the Property. The evaluation was completed in accordance with the February 22, 2004 USEPA "User's Guide for Evaluating Subsurface Vapor Intrusion in Buildings". A screening level vapor intrusion risk evaluation was performed for the Property. The results of the evaluation indicate that: (1) the ammonia impacts in the source area (TMW-1) exceed the target groundwater vapor intrusion screening levels for both residential and non-residential properties and (2) benzene and naphthalene concentrations in TMW-1 exceed the residential screening levels but are compliant with the non-residential screening levels.

10.5 SURFACE WATER

The subject site is located on Hutchinson Island, which is surrounded by two channels of the Savannah River. The site is located just north of the southern channel of the river. The

northern channel of the river is located approximately 3,000 feet north of the site. A small drainage canal is located approximately 200 feet north of the site. This canal connects to the southern channel of the river and is subject to significant tidal fluctuations, as is the river in this area. At low tide, the canal is essentially dry.

10.5.1 Ecological Risk Assessment

As requested by EPD in a letter to CSX-RPI dated January 31, 2013, a Screening-Level Ecological Risk Assessment (SLERA), which is provided as the Addendum to this progress report, has been prepared in accordance with Ecological Risk Assessment Guidance for Superfund: Process for Defining and Conducting Ecological Risk Assessments (ERAGS; U.S. Environmental Protections Agency [USEPA], 1997) and the Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment (USEPA, 2001). The primary purpose of this SLERA is to assess the potential for adverse impacts to ecological receptors in the off-property drainage canal bordering the northern property line. This SLERA evaluated surface water and sediment data collected in December 2013 and January 2014 from the off-property drainage Analyses for chemicals historically associated with the subject property, including dissolved metals, ammonia, nitrate, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs), were performed on surface water and sediment samples. Reported concentrations were compared to applicable environmental screening values (ESVs) protective of a variety of aquatic organisms to identify constituents of potential concern (COPCs) in surface water and sediment. Both freshwater and marine ESVs were considered in the SLERA due to the brackish nature of the surface water in the canal.

In addition, a biological reconnaissance of the canal and surrounding areas was conducted in January 2014 to assess likely ecological receptors and habitat suitability. The biological reconnaissance noted fiddler crabs in the canal, but no fish were noted. The canal is largely dry at low tide, limiting available habitat for fish populations. The SLERA was focused on risk to benthic macroinvertebrates (e.g., crabs) in the canal because these receptors are directly exposed to surface water and sediment in the canal and form the base of the food chain to other wildlife in the area. Evaluation of higher-trophic level mammals and birds were not included at this step in the ecological risk process.

Based on a comparison to surface water ESVs, no COPCs were identified in surface water. Therefore, surface water in the off-property drainage canal is not anticipated to pose unacceptable ecological risk to aquatic receptors. Sediment constituents with maximum

detected concentrations exceeding their respective sediment ESVs were identified as sediment COPCs and included ammonia, arsenic, lead, nitrate, and zinc. As a next step, concentrations of COPCs in sediments were compared to chemical-specific toxicity benchmarks protective of benthic macroinvertebrates. Because sediment concentrations were less than sediment toxicity benchmarks, exposure within the drainage canal is unlikely to pose significant adverse effects for benthic macroinvertebrates or other aquatic life. The results of the SLERA indicate that no additional ecological risk assessment of the drainage canal is necessary for this property.

Based on the detected concentrations of COCs dissolved in groundwater at the site, the results of the analytical groundwater fate and transport model for the VOCs in question and the results of the testing of the only surface water in the nearby site vicinity, in-stream water quality standards are not exceeded currently, and are not predicted to be exceeded in the future. Therefore, the surface water exposure pathway is incomplete.

10.5.2 Surface water sampling and testing

The drainage canal was sampled on several occasions between 1997 and 2004 by AES. During each sampling event, surface water samples were collected from two locations at the eastern and western portions of the canal nearest the CSXT property at both low and high tide. These samples were generally tested for PAHs, BTEX, metals (filtered and unfiltered) and ammonia. Low concentrations of ammonia have been detected in surface water samples collected from the canal north of the site during previous surface water sampling events conducted by BBL between 1997 and 2004 (see Table 12). Other COCs included in the previous surface water testing program include PAHs, BTEX and metals. Out of a total of 39 surface water samples tested over a seven year period, no PAHs were detected in the surface water samples. Ethylbenzene, toluene and xylenes were detected at very low concentrations in one sample collected in 2002 and were below detection limits in all other events. Lead was detected in three samples and zinc was detected in 24 samples. We note that lead and zinc results appear to have been influenced by suspended sediment as dissolved metals testing, performed on approximately half of the samples, typically exhibited significantly lower metals concentrations, with no detections of lead.

Between 2013 and 2015, Amec Foster Wheeler sampled the canal on four occasions. Surface water samples were collected from four locations within the drainage ditch located on the SEDA property north of the CSXT property. Sample SW-1 was collected where the drainage ditch crosses the road that borders the western portion of the CSXT property. SW-2 and SW-3 were

collected in the area north of the CSXT parcel, downgradient of the two major lobes of the ammonia plume in groundwater. SW-4 was collected where the drainage ditch crosses the road that borders the eastern portion of the CSXT property.

Two rounds of surface water samples were collected during each sampling event, one at high tide and one at low tide. The samples were collected in laboratory supplied containers using a peristaltic pump and Teflon-lined tubing. The following observations are provided based upon an evaluation of the analytical results for surface water samples collected during the May 2015 monitoring event, see Table 15 for a summary of all surface water testing results collected during the VRP monitoring events:

Ammonia concentrations ranged from 0.41 to 0.91 mg/L at high tide and from 0.62 to 1.5 mg/L at low tide. These concentrations are below both the fresh water environmental screening level of 3.206 mg/L and the marine environmental screening level of 1.896 mg/L. May 2015 ammonia concentrations and fluctuations between tidal stages are generally consistent with the results of previous surface water sampling events. Generally, higher ammonia concentrations are observed in surface water samples collected during low tide. After several sampling events, a seasonal pattern to the ammonia concentrations in surface water has become apparent. Ammonia concentrations in summer tend to be significantly higher than those observed in winter. However, even the highest ammonia concentrations remain below applicable ESLs.

Nitrate concentrations ranged from 0.25 to 0.29 mg/L at high tide and from 0.17 to 0.28 mg/L at low tide. May 2015 nitrate concentrations and fluctuations between tidal stages are generally consistent with the results of previous surface water sampling events. Generally, nitrate concentrations are higher at high tide, indicating input from the Savannah River.

Nitrite concentrations ranged from non-detect (less than 0.05 mg/L) to 0.060 mg/L at high tide and from non-detect to 0.094 mg/L at low tide. At the request of the Georgia EPD, surface water samples were analyzed for nitrite for the first time in May 2015.

Alkalinity concentrations ranged from 39 to 100 mg/L at high tide and from 77 to 130 mg/L at low tide. May 2015 alkalinity concentrations are generally consistent with the results of previous surface water sampling events. Generally, higher alkalinity concentrations are observed in surface water samples collected during low tide.

11.0 CONCLUSIONS

Based on the information obtained to date at the property, we offer the following conclusions

regarding the CSXT and surrounding properties:

CSXT Property

• The CSXT property is in compliance with Type 3 RRS for soil. Limited areas of soil

impacts exceeding Type 2 RRS remain.

• Ammonia, arsenic, benzene, naphthalene and nitrate exceed Type 1/3 RRS for

groundwater on the CSXT property. The five VRP sampling events have demonstrated

that impacts outside of the source areas are limited in concentration to below applicable

RRS and in most areas, site-specific background concentrations, as well. Groundwater

impacts within the source areas have been demonstrated to be stable or decreasing in

concentration over time and have been laterally and vertically delineated.

• The tidal marsh located adjacent to the CSXT property to the north has been shown to

provide an effective barrier to the migration of ammonia and other COCs and appears to

facilitate the degradation of ammonia.

Preliminary vapor intrusion screening indicates the northern corner of the site exceeds

residential vapor intrusion screening levels for ammonia, benzene and naphthalene and

non-residential screening levels for ammonia.

Spartan Hutchinson Island Investments (west of property)

Soil impacts have not been identified on the Spartan Hutchinson Island Investments

property.

Groundwater complies with Type 1/3 RRS.

SEDA Parcel B (north of property)

Soil and groundwater on the SEDA Parcel B are in compliance with Type 3 RRS and the

SEDA property has been delisted from the HSI.

Surface waters within the drainage canal are compliant with ecological risk standards.

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Hutchinson Island Ventures (east of property)

- No soil impacts have been identified on the Spartan Hutchinson Island Investments property.
- Groundwater complies with Type 1/3 RRS.

The CSXT property will be eligible for delisting from the HSI because it is in compliance with Type 3 RRS for soil and will be in compliance with Type 4 with controls risk reduction criteria for groundwater upon filing of the Environmental Covenant using institutional controls upon filing of the Environmental Covenant.

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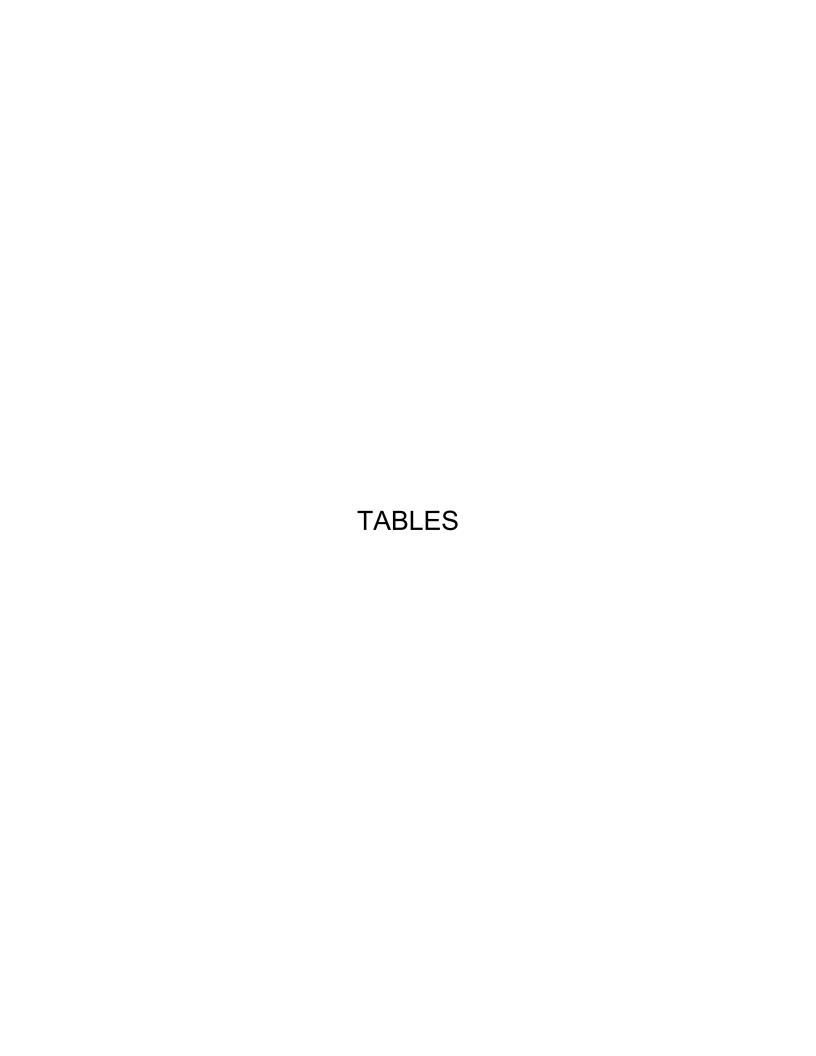
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		٦	Γable 1 - Summ	ary of May 2006 S	oil Delineation P	rogram Results		
Area	Sample ID	Sample Date	Lead, mg/kg (XRF)	Lead, mg/kg (6010B) Type 3 RRS = 400	Arsenic, mg/kg (XRF)	Arsenic, mg/kg (6010B) Type 3 RRS = 38	PSM Present? (Y/N)	Interval of Petroleum Source Material
	LIS-029[0-1']	5/3/2006	244.18	NA	ND	NA	Yes	(0-4') 18-26"
	LIS-029[1-2']	5/3/2006	1300.16	2100	50.78	NA	Yes	(0-4') 18-26"
	LIS-030[0-1']	5/3/2006	65.44	NA	ND	NA	Yes	(0-4') 12-18"
	LIS-030[1-2']	5/3/2006	38.16	NA	ND	NA	Yes	(0-4') 12-18"
	LIS-031[0-1']	5/3/2006	38	NA	ND	NA	No	
	LIS-031[1-2']	5/3/2006	14.82	NA	ND	NA	No	
	LIS-032[0-1']	5/3/2006	364.13	350	ND	NA	No	
2A	LIS-032[1-2']	5/3/2006	54.24	NA	ND	NA	No	
Lead Area 2A	LIS-033[0-1']	5/3/2006	174.86	NA	ND	NA	No	
δ	LIS-033[1-2']	5/3/2006	2049.42	11000	ND	NA	No	
Lea	LIS-034[0-1']	5/3/2006	205.36	NA	ND	NA	Yes	(0-4') 21-27"
_	LIS-034[1-2']	5/3/2006	207.33	270	ND	NA	Yes	(0-4') 21-27"
	LIS-035[0-1']	5/3/2006	115.26	120	ND	NA	No	
	LIS-035[1-2']	5/3/2006	70.4	NA	ND	NA	No	
	LIS-036[0-1']	5/3/2006	132.99	110	ND	NA	No	
	LIS-036[1-2']	5/3/2006	47.59	NA	ND	NA	No	
	LIS-037[0-1']	5/3/2006	197.73	430	ND	NA	No	
	LIS-037[1-2']	5/3/2006	275.64	NA	ND	NA	No	
Ø	LIS-027[0-1']	5/3/2006	205.97	2700	ND	NA	Yes	(0-4') 26-32"
Lead Area 2B	LIS-027[1-2']	5/3/2006	70.19	NA	ND	NA	Yes	(0-4') 26-32"
2d 2I	LIS-028[0-1']	5/3/2006	260.48	270	ND	NA	No	, ,
۳	LIS-028[1-2']	5/3/2006	64.72	NA	ND	NA	No	
	LIS-019[0-1']	5/2/2006	91.19	86	ND	NA	Yes	(0-4') 25-30"
	LIS-019[1-2']	5/2/2006	62.5	NA	ND	NA	Yes	(0-4') 25-30"
	LSI-020[0-1']	5/2/2006	231.63	280	ND	NA	Yes	(0-4') 22-26"
	LIS-020[1-2']	5/2/2006	36.65	NA	ND	NA	Yes	(0-4') 22-26"
	LIS-021[0-1']	5/2/2006	193.93	NA	ND	NA	Yes	(0-4') 29-34"
	LIS-021[1-2']	5/2/2006	118.38	NA	ND	NA	Yes	(0-4') 29-34"
O	LIS-021[2-3']	5/2/2006	33.88	NA	ND	NA	Yes	(0-4') 29-34"
Lead Area 2C	LIS-022[0-1']	5/2/2006	352.52	260	ND	NA	Yes	(0-4') 18-30"
Are	LIS-022[1-2']	5/2/2006	124.62	NA	ND	NA	Yes	(0-4') 18-30"
ad	LIS-023[0-1']	5/2/2006	210.27	NA	ND	NA	Yes	(0-4') 20-26"
ڀّ	LIS-023[1-2']	5/2/2006	109.92	NA	ND	NA	Yes	(0-4') 20-26"
	LIS-024[0-1']	5/2/2006	177.55	NA	ND	NA	Yes	(0-4') 26-29"
	LIS-024[1-2']	5/2/2006	98.87	NA	ND	NA	Yes	(0-4') 26-29"
	LIS-025[0-1']	5/2/2006	186.03	NA	ND	NA	Yes	(0-4') 18-20"
	LIS-025[1-2']	5/2/2006	54.99	NA	ND	NA	Yes	(0-4') 18-20"
	LIS-026[0-1']	5/2/2006	121.53	120	ND	NA	Yes	(0-4') 13-17"
	LIS-026[1-2']	5/2/2006	331.07	NA	ND	NA	Yes	(0-4') 13-17"
₽ &	LIS-087[0-1']	5/4/2006	43.34	NA	ND	NA	No	
Lead Area 3A	LIS-088[0-1']	5/4/2006	291.49	NA	20.72	NA	No	
Ā F	LIS-088[1-2']	5/4/2006	127.55	NA	13.19	NA	No	

		1	Table 1 - Summ	ary of May 2006 S	oil Delineation P	rogram Results		
Area	Sample ID	Sample Date	Lead, mg/kg (XRF)	Lead, mg/kg (6010B) Type 3 RRS = 400	Arsenic, mg/kg (XRF)	Arsenic, mg/kg (6010B) Type 3 RRS = 38	PSM Present? (Y/N)	Interval of Petroleum Source Material
	LIS-070[0-1']	5/4/2006	319.25	NA	ND	NA	Yes	(0-4') 9-20"
	LIS-071[0-1']	5/4/2006	381.19	NA	ND	NA	Yes	(0-4') 10-16"
	LIS-072[0-1']	5/4/2006	239.01	420	ND	NA	Yes	(0-4') 10-17"
	LIS-073[0-1']	5/4/2006	992.14	990	ND	NA	Yes	(0-4') 26-27"
	LIS-074[0-1']	5/4/2006	608.07	NA	ND	NA	Yes	(0-4') 15-19"
	LIS-075[0-1']	5/4/2006	167.34	NA	ND	NA	No	
m	LIS-075[1-2']	5/4/2006	81.21	NA	ND	NA	No	
a 3B	LIS-076[0-1']	5/4/2006	420.86	NA	ND	NA	No	
Ĭ.	LIS-077[0 1']	5/4/2006	656.28	NA	ND	NA	No	
δ ρ	LIS-078[0-1']	5/4/2006	134.71	NA	ND	NA	No	
Lead Area	LIS-079[0-1']	5/4/2006	740.84	NA	ND	NA	Yes	(0-4') 9-13"
	LIS-080[0-1']	5/4/2006	720.65	NA	ND	NA	No	· ·
	LIS-081[0-1']	5/4/2006	45.84	NA	ND	NA	No	
	LIS-082[0-1']	5/4/2006	123.43	NA	ND	NA	Yes	(0-4') 13-14" and 19-24"
	LIS-083[0-1']	5/4/2006	148.52	NA	ND	NA	No	, ,
	LIS-084[0-1']	5/4/2006	659.75	1700	ND	NA	No	
	LIS-085[0-1']	5/4/2006	11.74	9.6	ND	NA	No	
	LIS-086[0-1']	5/4/2006	ND	2.5	ND	NA	No	
	LIS-135[0-1']	5/6/2006	280.3	NA	ND	NA	No	
₹	LIS-135[1-2']	5/6/2006	342.08	450	ND	NA	No	
4 A	LIS-136[0-1']	5/6/2006	148.92	NA	15.85	NA	No	
l e	LIS-137[0-1']	5/6/2006	316.24	430	ND	NA	No	
Lead Area	LIS-138[0-1']	5/6/2006	259.07	NA	21.02	NA	No	
ea	LIS-139[0-1']	5/6/2006	123.8	NA	ND	NA	No	
	LIS-140[0-1']	5/6/2006	99.2	95	ND	NA	No	
	LIS-140[1-2']	5/6/2006	70.13	NA	ND	NA	No	
	LIS-006[0-1']	5/2/2006	11.11	17	ND	NA	No	
	LIS-006[1-2']	5/2/2006	52.23	150	ND	NA	No	
	LIS-007[0-1']	5/2/2006	92.29	94	ND	NA	No	
	LIS-007[1-2']	5/2/2006	1036.67	620	ND	NA	No	
	LIS-008[0-1']	5/2/2006	270.26	190	ND	NA	No	
⋖	LIS-008[1-2']	5/2/2006	40.9	99	ND	NA	No	_
a 5	LIS-009[0-1']	5/2/2006	18.54	14	ND	NA	No	
, Le	LIS-009[1-2']	5/2/2006	ND	5.2	ND	NA	No	
/ pi	LIS-010[0-1']	5/2/2006	ND	10	ND	NA	No	
Lead Area 5A	LIS-010[1-2']	5/2/2006	19.5	21	ND	NA	No	
_	LIS-011[0-1']	5/2/2006	71.01	88	ND	NA	No	
	LIS-011[1-2']	5/2/2006	32.8	43	ND	NA	No	
	LIS-012[0-1']	5/2/2006	64.25	63	ND	NA	No	
	LIS-012[1-2']	5/2/2006	93.62	94	ND	NA	No	
	LIS-013[0-1']	5/2/2006	83.79	82	13.87	NA	No	
l	LIS-013[1-2']	5/2/2006	75.44	96	ND	NA	No	

			able 1 - Julilli	ary of May 2006 So	oil Delineation P	rogram Results		
Area	Sample ID	Sample Date	Lead, mg/kg (XRF)	Lead, mg/kg (6010B) Type 3 RRS = 400	Arsenic, mg/kg (XRF)	Arsenic, mg/kg (6010B) Type 3 RRS = 38	PSM Present? (Y/N)	Interval of Petroleum Source Material
	LIS-001[0-1']	5/2/2006	58.33	77	ND	NA	No	
	LIS-001[1-2']	5/2/2006	56.15	65	ND	NA	No	
	LIS-002[0-1']	5/2/2006	54.89	59	ND	NA	No	
	LIS-002[1-2']	5/2/2006	50.07	44	ND	NA	No	
	LIS-003[0-1']	5/2/2006	84.34	82	ND	NA	No	
	LIS-003[1-2']	5/2/2006	28.81	32	ND	NA	No	
	LIS-004[0-1']	5/2/2006	70.4	410	ND	NA	No	
	LIS-004[1-2']	5/2/2006	27.14	37	ND	NA	No	
œ.	LIS-005[0-1']	5/2/2006	126.95	130	ND	NA	No	
Lead Area 5B	LIS-005[1-2']	5/2/2006	62.38	82	ND	NA	No	
V.E.	LIS-064[0-1']	5/4/2006	159.48	NA	ND	NA	No	
φp	LIS-064[1-2']	5/4/2006	253.1	NA	ND	NA	No	
ea	LIS-065[0-1']	5/4/2006	486.84	610	ND	NA	No	
	LIS-065[1-2']	5/4/2006	31.54	NA	ND	NA	No	
	LIS-066[0-1']	5/4/2006	1028.41	2400	ND	NA	No	
	LIS-066[1-2']	5/4/2006	380.17	NA	ND	NA	No	
	LIS-067[0-1']	5/4/2006	87.72	100	ND	NA	No	
	LIS-067[1-2']	5/4/2006	92.43	NA	ND	NA	No	
	LIS-068[0-1']	5/4/2006	120.95	120	ND	NA	No	
	LIS-068[1-2']	5/4/2006	37.82	NA	ND	NA	No	
	LIS-069[0-1']	5/4/2006	189.77	220	ND	NA	No	
	LIS-069[1-2']	5/4/2006	197.75	NA	ND	NA	No	
	LIS-014[0-1']	5/2/2006	122.83	140	ND	NA	No	
	LIS-014[1-2']	5/2/2006	72.35	82	ND	NA	No	
0	LIS-015[0-1']	5/2/2006	145.56	130	ND	NA	No	
Lead Area 5C	LIS-015[1-2']	5/2/2006	303.14	210	ND	NA	No	
je je	LIS-016[0-1']	5/2/2006	221.89	NA	ND	NA	No	
5	LIS-016[1-2']	5/2/2006	206.75	NA	ND	NA	No	
e g	LIS-017[0-1']	5/2/2006	339.4	460	ND	NA	No	
	LIS-017[1-2']	5/2/2006	305.16	NA	ND	NA	No	
	LIS-018[0-1']	5/2/2006	278.49	NA	ND	NA	No	
	LIS-018[1-2']	5/2/2006	259.8	NA	ND	NA	No	
pg	LIS-145[0-1']	5/6/2006	43.96	46	ND	NA	No	
e [e	LIS-146[0-1']	5/6/2006	21.66	NA	ND	NA	No	
mrer Lea Area 6	LIS-147[0-1']	5/6/2006	52.97	35	ND	NA	No	
Fomrer Lead Area 6	LIS-148[0-1']	5/6/2006	46.38	NA	ND	NA NA	No	
요 -	LIS-149[0-1']	5/6/2006	40.98	NA NA	ND	NA NA	No	

		٦	Γable 1 - Summ	ary of May 2006 S	oil Delineation F	Program Results		
Area	Sample ID	Sample Date	Lead, mg/kg (XRF)	Lead, mg/kg (6010B) Type 3 RRS = 400	Arsenic, mg/kg (XRF)	Arsenic, mg/kg (6010B) Type 3 RRS = 38	PSM Present? (Y/N)	Interval of Petroleum Sour Material
	LIS-056[0-4']	5/3/2006	NA	NA	NA	NA	No	
	LIS-057[0-4']	5/3/2006	NA	NA	NA	NA	No	
	LIS-058[0-4']	5/3/2006	NA	NA	NA	NA	No	
	LIS-059[0-4']	5/3/2006	NA	NA	NA	NA	Yes	(0-4') 13-17"
	LIS-060[0-4']	5/3/2006	NA	NA	NA	NA	No	
	LIS-061[0-4']	5/3/2006	NA	NA	NA	NA	Yes	(0-4') 18-22"
	LIS-089[0-4']	5/4/2006	NA	NA	NA	NA	Yes	(0-4') 14-33"
	LIS-090[0-4']	5/4/2006	NA	NA	NA	NA	No	(2.4) 22.24
	LIS-091[0-4']	5/4/2006	NA	NA	NA	NA NA	Yes	(0-4') 20-21"
	LIS-092[0-4']	5/4/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 13-21"
	LIS-093[0-4'] LIS-107[0-4']	5/4/2006 5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes Yes	(0-4') 10-22" (0-4') 18-34"
	LIS-107[0-4]	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4) 18-34
	LIS-109[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 29-34"
	LIS-110[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 24-29"
	LIS-111[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 29-37"
	LIS-112[0-4']	5/5/2006	NA	NA	NA	NA	No	(0 1, =0 01
4 2	LIS-113[0-4']	5/5/2006	NA	NA	NA	NA	No	
⊃SM AREA	LIS-114[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 16-18"
₹	LIS-115[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 23-29"
Σ	LIS-116[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 11-17"
ă.	LIS-117[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 21-24"
	LIS-118[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 38-43"
	LIS-119[0-4']	5/5/2006	NA NA	NA NA	NA	NA	Yes	(0-4') 16-22"
	LIS-120[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA	Yes	(0-4') 12-17"
	LIS-121[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	No No	
	LIS-122[0-4'] LIS-123[0-4']	5/5/2006 5/5/2006	NA NA	NA NA	NA NA	NA NA	No No	
	LIS-123[0-4]	5/5/2006	NA NA	NA NA	NA NA	NA NA	No	
	LIS-125[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 16-28"
	LIS-126[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 23-36"
	LIS-127[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 12-26"
	LIS-128[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-129[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-130[0-4']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 10-28"
	LIS-131[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-132[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-133[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-134[0-4']	5/5/2006	NA	NA	NA	NA	No	
	LIS-094[0-8']	5/5/2006	NA	NA	NA	NA	No	
	LIS-095[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 16-25"
	LIS-096[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(4-8') 14-25"
	LIS-097[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 24-35" (4-8') 0-15'
4 4	LIS-098[0-8']	5/5/2006	NA	NA	NA	NA	No	
PSM AREA	LIS-099[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(4-8') 19-22"
₹	LIS-100[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(4-8') 18-19"
Š	LIS-101[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(4-8') 20-21"
₽.	LIS-102[0-8']	5/5/2006	NA	NA	NA	NA	Yes	(0-4') 9-32" (4-8') 0-2"
	LIS-103[0-8']	5/5/2006	NA	NA	NA	NA NA	No	
	LIS-104[0-8']	5/5/2006	NA NA	NA NA	NA NA	NA	No	(0.41) 10.00"
	LIS-105[0-4']	5/5/2006	NA NA	NA NA	NA NA	NA NA	Yes	(0-4') 12-29"
	LIS-106[0-4']	5/5/2006 of XRF device	NA	NA	NA	NA	Yes	(0-4') 20-36"

ND = less than detection limit of XRF device

NA = Not Analyzed

PSM = Petroleum Source Material

Results shaded and in bold denote exceedence of the EPD Type 3/4 RRS for lead/arsenic, XRF reading greater than 266 mg/kg for lead, or the presence of PSN All units are in mg/Kg

Table 2 - Summary of 2007 Site Wide Investigation - PSM Boring Observations

Boring ID	PSM Present (Y/N)	Detph to PSM (inches bgs)	PSM thickness (inches)	Comments
				3/27/2007
SWI-001	N			Gray sand, no odor, no sheen
SWI-002	N			Gray sand, no sheen, no odor
SWI-003	N			Gray sand, some clay, no sheen, no odor
SWI-004	N			Gray sand, no sheen, no odor
SWI-005	N			Gray sand, no sheen, no odor
SWI-006	N			Gray sand, no sheen, no odor
SWI-007	N			Gray sand, trace clay, no sheen, no odor
SWI-008	N			Gray sand, no sheen, no odor
SWI-009	N			Gray sand, no sheen, no odor
SWI-010	N			Grav sand, no sheen, no odor
SWI-011	N			Gray sand, no sheen, no odor
SWI-012	N			Gray sand, no sheen, chemical odor, no PSM
SWI-013	N			Gray sand, no sheen, no PSM, strong chemical odor
SWI-014	N			Dark gray sand, trace clay, trace coal, no sheen, no PSM, strong chemical odor
SWI-015	N			Gray sand, no sheen, no odor, no PSM
SWI-015	N			Gray sand, no sheen, no odor, no PSM
SWI-017	N			Gray sand, dense, no sheen, no odor, no PSM
SWI-017	N N			Gray sand, some black stains not PSM, mud odor
SWI-019	N N			Gray sand and clay, no sheen, no PSM, minor organic odor
SWI-020	N N			Gray sand and clay, no sheen, no PSM, slight odor
SWI-021				Black stained sand from 2-2.5' not PSM, strong odor
SWI-022 SWI-023	N			Brown sand, no sheen, no odor, no PSM
	N			Gray sand and clay, no sheen, no odor, no PSM
SWI-024	N			Gray sand and clay (6') no sheen, no odor, no PSM
SWI-025	N			Gray sand and clay (6') no sheen, no odor, no PSM
SWI-026	N			Gray sand and clay, no sheen, no odor, no PSM
SWI-027	N			Gravel (trench material) no PSM, no sheen, no odor
SWI-028	N			Gray sand, no PSM, no sheen, no odor
SWI-029	N			Some black possibly organic staining 1-2" no PSM
SWI-030	N			No PSM, no odor, no sheen
SWI-031	N			No PSM, no odor, no sheen
SWI-032	N			No PSM, no odor, no sheen
SWI-033	Y	10"	8"	Black sticky PSM layer, strong petroleum odor and sheen
SWI-034	N			Gray sand and clay, no sheen, no odor
SWI-035	N			Gray sand, no sheen, no odor
SWI-036	N			No PSM, brown sand, no sheen, no odor
SWI-037	N			No PSM, no sheen, no odor
SWI-038	N			No PSM, white gray sand
	1			3/28/2007
SWI-039	N			Gray sand, no PSM, no sheen, no odor
SWI-040	N			Dark gray sand, strong odor, trace PSM at 18"
SWI-041	N			Dark gray sand, no PSM, strong odor PID = 141ppm
SWI-042	N			Dark gray sand, no PSM, strong odor PID =195 ppm, no sheen
SWI-043	N			Gray sand, no sheen, no odor, no PSM
SWI-044	N			Gray sand, no sheen, no odor, no PSM
SWI-045	N			Gray sand, no sheen, no odor, no PSM
SWI-046	N			Gray sand, no sheen, no odor, no PSM
SWI-047	N			Dark gray sand, no sheen, no odor, no PSM
SWI-048	N			Dark gray sand, trace PSM at 18", strong petroleum odor, sheen present, PID
3001-046	IN			= 151ppm
SWI-049	N			Dark gray to black sand, no sheen, no odor, no PSM
SWI-050	N			Gray sand, slight odor, no sheen, no odor, no PSM
SWI 051	Y	10 "	~12"	Amber brown to black PSM layer, amber from 10-22", black soft silty clay under PSM layer, strong organic
SWI-051		10	~12	odor
SWI-052	N			Black soft layer of slight PSM from 10-13", no sheen
SWI-053	N			No PSM, gray sand, no sheen, no odor
SWI-054	N			Grayish black sand and clay, slight PSM at 18", no sheen
SWI-055	N			Dark gray sand, very strong odor, PID=392 ppm, no PSM, no sheen
SWI-056	N			Gravel (trench material) not much recovery, some black clay, moderate petroleum odor, no PSM, no sheen
SWI-057	N			Black stained sand (4-6') slight odor, no sheen, no PSM
SWI-058	N			Dark gray sand and clay, no sheen, no odor, no PSM
SWI-059	N			Dark gray sand and clay, no sheen, no odor, no PSM
SWI-060	N			Dark gray sand 0-4.5', strong chemical odor, (PID=428ppm), no PSM, clay below 4-5', no sheen
SWI-061	N			Dark gray sand 0-4.5', strong chemical odor, (PID=275ppm), no PSM, clay below 4-5', no sheen
SWI-062	N			Dark gray sand 0-5', clay below, moderate chemical odor, (PID=87), no PSM, no sheen
				Dark gray sand 0-5', clay below, moderate chemical odor, (FID=80), trace
SWI-063	N			PSM near surface, no PSM, no sheen
SWI-064	N			Gray medium sand above clay, no sheen, no odor, no PSM
SWI-065	N			Gray sand and clay at 6', no sheen, no odor, no PSM
SWI-066	N			Dark gray sand above clay at 6', no sheen, slight chemical odor, PID=8ppm, no PSM
SWI-067	N			Dark gray sand above clay at 5', no sheen, slight chemical odor, no PSM
SWI-068	N			Dark gray sand above clay at 6', no sheen, no odor, no PSM
SWI-069	N			Grayish brown sand above clay at 6', no sheen, no odor, no PSM
J 000	1 19		1	2.2, 2. 2. 2

Table 2 - Summary of 2007 Site Wide Investigation - PSM Boring Observations

Boring ID	PSM Present (Y/N)	Detph to PSM (inches bgs)	PSM thickness (inches)	Comments
SWI-070	N			Gray sand over clay at 5', no sheen, no odor, no PSM
SWI-071	N			Gray sand over clay at 7', no sheen, no odor, no PSM
SWI-072	N			Gray sand over clay at 7', no sheen, no odor, no PSM
SWI-073	N			Gray sand over clay at 6', no sheen, slight chemical odor, no PSM
SWI-074	N			Gray sand over clay at 7', no sheen, no odor, no PSM
SWI-075	N			Gray sand over clay at 7.5', no sheen, no odor, no PSM
SWI-076	N			Brown sand down to 8', no sheen, no odor, no PSM
SWI-077	N			Gray sand down to 8', no sheen, no odor, no PSM 3/29/2007
SWI 079	N			
SWI-078 SWI-079	N N			Gray sand to 8', no sheen, no odor, no PSM Gray sand to 8', no sheen, no odor, no PSM
SWI-079	N N			Gray sand to 6, no sheen, no odor, no PSM Gray sand coarse to 8', no sheen, no odor, no PSM
SWI-080	N N			Gray sand coarse to 8, no sheen, no odor, no PSM
SWI-082	N			Gray sand coarse to 8, no sheen, no odor, no PSM
SWI-083	N			Gray sand over clay at 7', no sheen, no odor, no PSM
SWI-084	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-085	N			Gray sand over clay at 7', no sheen, no odor, no PSM
SWI-086	N			Dark gray sand, slight petro odor, (PID=11ppm), no sheen, no PSM
SWI-087	N			Trace PSM at 3', (2") thick layer black, no sheen, mild odor
SWI-088	N			Gray brown coarse sand to 8', no sheen, no odor, no PSM
SWI-089	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-090	N			Gray brown sand to 8', no sheen, no odor, no PSM
SWI-091	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-092	N			Brown medium sand to 8', no sheen, no odor, no PSM
SWI-093	N			Gray sand down to 8', no sheen, no odor, no PSM
SWI-094	N			Gray sand down to 8', no sheen, no odor, no PSM
				Gray sand to 6.5' clay below, black stained sand at 3', no sheen, no odor, no
SWI-095	N			PSM
SWI-096	N			Gray sand to 8', trace PSM in top 12", no sheen, no odor
SWI-097	N			Gray sand to 6' clay below, trace PSM at 2-4", no sheen, no odor, no PSM
SWI-098	N			Gray sand, no sheen, no odor, no PSM, clay not found sand to 8'
SWI-099	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-100	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-101	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-102	N			Gray sand to 6' clay below, trace PSM 2-2.5', no sheen, no odor
SWI-103	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-104	N			Gray sand to 8' no sheen, no odor, no PSM
SWI-105	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-106	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-107	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-108	N			Brown to gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-109	N			Gray and brown sand no clay, no sheen, no odor, no PSM
SWI-110	N			Gray coarse sand no clay, no sheen, no odor, no PSM
				3/30/2007
SWI-111	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-112	N			Gray sand to 8' no sheen, no odor, no PSM
SWI-113	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-114	N			Gray sand to 7' clay below, black stained 4" layer of sand at 5', no sheen, no odor, no PSM
SWI-115	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-116	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-117	N			Gray (dark) sand to 8' no clay, slight sheen, slight petroleum odor (PID=33)
	.,			no PSM
SWI-118	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-119	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-120	N			Gray brown sand to 8' no clay, no sheen, no odor, no PSM
SWI-121	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-122	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-123	N			Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-124	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-125	N			Gray sand to 6.5' clay below, slight sheen, no odor, no PSM
SWI-126	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-127	N			Gray sand above clay at 6', no sheen, no odor, no PSM
SWI-128	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-129	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-130	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-131	N			Gray sand to 7' no clay, no sheen, no odor, no PSM
SWI-132	N			Tan to light sand down to 8', no sheen, no odor, no PSM
SWI-133	N			Brown to tan sand down to 6' clay below, no sheen, no odor, no PSM Gray sand to 6.5 clay below, dark gray standed layer (3.) at 2, moderate petroleum door, no sheen, no PSM
SWI-134	N			(DID_69 at stained layer)
SWI-135	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-136	N			Gray sand to 5' clay below, no sheen, no odor, no PSM
SWI-137	N			Gray sand to 6' clay below 4" black stained layer at 2' (PID=57) no sheen, no odor, no PSM
SWI-138	N			Gray sand down to 7' clay below, moderate petroleum odor throughout sand
	l	l	<u> </u>	(PID=102), no sheen, no PSM

Table 2 - Summary of 2007 Site Wide Investigation - PSM Boring Observations

Boring ID	PSM Present (Y/N)	Detph to PSM (inches bgs)	PSM thickness (inches)	Comments
CVA/I 420	N			Gray sand down to 6' clay below, moderate petroleum odor on all sand
SWI-139	N			PID=72, no sheen, no PSM oray samu down to 7 day below, moderate petroleum odor triroughout, z biack stainled layer at 10 PiD=12,
SWI-140	N			clight choop, no PSM
SWI-141	Y	24"	10"	Black to blackish silver PSM layer, strong petroleum odor and sheen
SWI-142	N			Gray sand to 8' no clay, slight odor, no sheen, no PSM
SWI-143	N			Dark gray stained sand, slight sheen, moderate petroleum odor, no PSM Dark gray sand to 6 cray below, black stained layer (2) at 2, no PSM, moderate petroleum odor PID=83,
SWI-144	N			Dark gray Sand to 6 day below, black stained layer (2) at 2 , no PSIVI, moderate petroleum odor iniD=65,
SWI-145	N			PID-102 clight shoop
SWI-146	N			Dark gray sand to 8', appears stained dark, not PSM, moderate petroleum odor PID=456, slight sheen
SWI-147	Y	16"	12"	Black to amber brown PSM layer, strong petroleum odor and sheen, no clay
SWI-148	Y	12"	10"	Black to dark gray PSM layer, strong petroleum odor and sheen, silty clay layer at 7'
SWI-149	N			Gray sand down to 8', no clay, no sheen, no odor, no PSM Gray sand to 6 clay beneath trace PSM from 2-2.5, slight sheen, moderate petroleum odor PSM trace is not
SWI-150	N			Consistent through 2.2.5' interval but intermined
		1	ı	4/2/2007
SWI-151	N			Brown sand to 1.5', trace PSM from 1.5-2.0 feet bgs, stained black and not consistent, no sheen, slight odor
SWI-152	N			Gray sand down to 7' clay below, no sheen, no odor, no PSM
SWI-153	N			Gray sand down to 7' clay below, no sheen, no odor, no PSM
SWI-154	Υ	18"	24"	Amber brown to black PSM layer, strong petroleum odor and free phase globules noted, very consistent layer
SWI-155	Y	33"	41"	Two PSM layers, amber brown, sticky, sheen, strong petroleum odor 13" top and 18" bottom 10" layer of gray sand between PSM layers, 2" gray sand at bottom of 4-8' boring
SWI-156	Y	20"	10"	Amber brown sticky PSM layer, strong petroleum odor and sheen, no clay
SWI-157	N			Gray sand down to 8', no PSM, no sheen, slight odor, 3" dark gray stained layer at 3.5'
SWI-158	Y	16"	7"	Amber brown to black, sticky PSM layer, strong petroleum odor and sheen, gray sand below 8'
SWI-159	N			Gray sand down to 8' no clay, no sheen, no odor, no PSM
SWI-160	N			Gray sand down to 7' clay below, no sheen, no odor, no PSM
SWI-161	Y	12"	22"	Amber brown to black, sticky PSM layer, strong petroleum odor and sheen, clay at 7.5'
SWI-162	N			No PSM gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-163	N			Dark gray sand down to 7' clay below, no sheen, no odor, no PSM
SWI-164	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-165	N			Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-166	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-167	Y	28"	3"	Amber brown PSM layer, intermixed with gray sandy clay at 6.5', strong petroleum odor and sheen
SWI-168	N			Gray sand to 5' clay below, no sheen, no odor, no PSM
SWI-169	N			Gray sand to 4' refusal at 4' concrete no clay, no PSM, no sheen, no odor
SWI-109	N			Gray sand to 5' refusal at 5' concrete no clay, no PSM, no sheen, no odor
3VVI-170	IN			Gray sand and gravel to 4.5' refusal at 4.5' concrete, slight 2" layer of PSM at
SWI-171	N			22-24" black stained
SWI-172	Y	12"	10"	Amber brown sticky PSM layer, strong pungent odor, gravel below
SWI-172	N			Dark brownish gray fine sand, slight to moderate petroleum odor, slight sheen, trace PSM 6-12"
SWI-173	N N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-174	N N			Grayish brown sand down to 7' clay below, trace PSM 6-12", moderate petroleum odor, no sheen
SWI-176	N			Yellow till to 3.5' gray sand/clay below, no sheen, no odor, no PSM
SWI-177	N			Gray sand to 3' refusal at 3' no clay, no sheen, no odor, no PSM
SWI-178	N			Gray sand to 6' refusal at 6', no PSM, no sheen, no odor, no PSM
SWI-179	N			Gray sand to 4.5' refusal at 4.5' no clay, no sheen, no odor, no PSM
SWI-180	N			Gray sand to 3' refusal at 3', slight black staining (2") at 2.5', no PSM, no sheen, slight odor
	•	ı		4/3/2007
SWI-181	N			Gray brown sand to 8' no clay, no sheen, no odor, no PSM
SWI-182	N			Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-183	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-184	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-185	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-186	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-187	N			Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-188	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-189	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-190	N			Gray sand to 3.5' refusal at 3.5', no sheen, no odor, no PSM
2441-120	IN IN	_ -		Citay Saina to 5.5 Telusal at 5.5, 110 Sileen, 110 Guor, 110 F Givi

Table 2 - Summary of 2007 Site Wide Investigation - PSM Boring Observations

Boring ID	PSM Present (Y/N)	Detph to PSM (inches bgs)	PSM thickness (inches)	Comments
SWI-191	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-192	N	-		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-193	N	-		Brown sand to 3.5' refusal at 3.5' no clay, no sheen, no odor, no PSM
SWI-194	Y	50"	4"	Amber brown PSM layer, strong petroleum odor and free phase globules noted, no clay
SWI-195	N			Gray brown sand down to 8' no clay, no sheen, no odor, no PSM
SWI-196	Y	18"	17"	Amber brown sticky PSM layer, strong petroleum odor and sheen, clay at 6.5'
SWI-197	N			Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-198	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-199	N			Gray sand down to 7' clay below, no sheen, no odor, no PSM
SWI-200	N			Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-201	N	-		Black organic silty sand, slight sheen, no PSM, no odor
SWI-202	N	-		Gray sand down to 8' no clay, no sheen, no odor, no PSM
SWI-203	N			Gray sand down to 8' no clay, no sheen, no odor, no PSM
SWI-204	N	-		Gray sand no clay, no sheen, no odor, no PSM
SWI-205	N	-		Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-206	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-207	N			Brown sand to 2.5' clay below, no sheen, no odor, no PSM
SWI-208	N			Gray sand to 6.5' clay below, no sheen, no odor, no PSM
SWI-209	N			Gray brown sand to 4' clay below, no sheen, no odor, no PSM
SWI-210	N			Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-211	N			Gray sand to 8' no clay, slight sheen, slight odor, no PSM
SWI-212	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-213	N			Gray sand to 7.5' clay below, slight sheen, no odor, no PSM
				Black stained soil from 2-4' moderate petro odor, no sheen, not PSM clay not found, this black layer is
SWI-214	N			questionable PSM Gray sand to 6: Slight 2 inch PSM layer at 6 feet. Not consistent layer. Sheen and odor present but not
SWI-215	N			significant.
SWI-216	N			Black stained soil layer from 3-3.5', moderate petro odor, not PSM, no sheen, PID=233 in black stained layer
SWI-217	N			Gray sand down to 6' clay below, no sheen, no odor, no PSM
SWI-218	N			Gray sand to 7' clay below, no sheen, slight petro odor, no PSM
SWI-219	N			Gray and brown sand down to 4.5' at refusal, no sheen, no odor, no PSM
SWI-220	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
		1		4/4/2007
SWI-221	N Y	22"	19"	Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-222 SWI-223	N N			Amber brown PSM layer intermixed with gray sand, strong petroleum odor and free phase globules noted Gray sand to 1' clay below, no sheen, no odor, no PSM
SWI-224	N			Brown sand to 18". Gray clay with slight PSM from 18"-24" amber brown color within clay on fine sand, not consistent, no sheen, moderate petroleum odor
SWI-225	N			Gray sand to 6', no sheen, no odor, no PSM, clay from 6' below
SWI-226	N			Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-227	N			Gray sand to 8', no sheen, no odor, no PSM, small clay layer 6-6.5'
SWI-228	Y	6"	12"	Black asphalt-like PSM layer, moderate petroleum odor and free phase globules noted, gives off free phase
SWI-229	N			oil when placed in jar with water, no clay
	N			Gray sand down to 8' no sheen, no odor, no PSM
SWI-230	N Y			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-231		12"	12"	Amber brown PSM layer,strong petroleum odor and free phase globules noted
SWI-232	N	-		Gray sand down to 7.5' clay below, no sheen, no odor, no PSM
SWI-233	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-234	N			Gray sand to 8', no sheen, no odor, no PSM
SWI-235 SWI-236	N Y	20"	24"	Gray sand to 8' no clay, black stained material at 3-3.5' not PSM, no sheen, slight petro odor Amber brown sticky PSM layer, strong petroleum odor and free phase globules noted, gray sand below
SWI-237	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-238	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-239	N			Gray sand down to 8' no clay, no sheen, no odor, no PSM
SWI-240	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-241	N			Gray sand to 8' no caly, no sheen, no odor, no PSM
SWI-242	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-243	N			Slight PSM from 8-10" gray to amber brown, slight sheen and odor not significant
SWI-244	N			Gray sand to 8' no clay, slight 1" PSM layer at 20" not continuous, slight sheen, moderate petro odor
SWI-245	N	-		Gray sand to 7' clay below, no sheen, no PSM, slight petroleum odor PID=33
SWI-246	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-247	N			Gray sand to 5' clay below, no sheen, no odor, no PSM
SWI-248	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-249	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-250	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-251	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-252	N			Gray sand to 8' no clay, some black and amber brown staining intermittenly, no sheen, no odor, no PSM
<u> </u>	<u> </u>		l	1

Table 2 - Summary of 2007 Site Wide Investigation - PSM Boring Observations

			-	
Boring ID	PSM Present (Y/N)	Detph to PSM (inches bgs)	PSM thickness (inches)	Comments
SWI-253	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-254	N	-		Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-255	N	1		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-256	N			Gray sand to 8' trace 1/2" layer of inconsistent PSM at 4', no clay
SWI-257	N			Gray sand to 8' 1/2" layer of inconsistent PSM at 4', no clay
SWI-258	N			Gray sand to 8', 5" of clay above sand, no PSM
				4/5/2007
SWI-259	N	-		Gray sand to 5' clay below, no sheen, no odor, no PSM
SWI-260	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-261	Y	20"	4"	Dark gray to black PSM layer, strong petroleum odor and sheen, not as significant as SWI-141
SWI-262	N			Dark gray sand moderate petroleum odor, no sheen, no PSM
SWI-263	N	-		Dark gray sand no clay, no sheen, no odor, no PSM
SWI-264	N	-		Dark gray sand 3" layer at 20" of darker sand not PSM, no clay, no sheen, no odor, no PSM
SWI-265	N	-		Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-266	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-267	Y	18"	15"	Black to amber brown PSM layer, strong petroleum odor and free phase globules noted, no clay
SWI-268	N			Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-269	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-270 SWI-271	N Y	20"		Gray sand to 5' refusal at 5' no clay, no sheen, no odor, no PSM
SWI-271 SWI-272	N N	20"	15"	Amber brown to silver gray PSM layer, strong petroleum odor (sweet) and sheen present
SWI-272	Y	24"	40"	Gray sand to 4' refusal at 4' no clay, no sheen, no odor, no PSM Amber brown to black PSM layer moderate petroleum odor and sheen, no clay
SWI-273	N			Gray sand down to 8' no clay, no sheen, no odor, no PSM
SWI-274	N			Gray sand to 8' no clay, slight odor, no sheen, no PSM
SWI-275	Y	20"	8"	Black PSM layer, strong petroleum odor and heavy sheen
SWI-277	Y	12"	12"	Amber brown to silver gray, discontinuous PSM layer, strong sweet odor and moderate sheen
SWI-278	Y	20"	12"	Very dark gray to black PSM layer, strong petroleum odor and sheen present, clay at 7.5'
SWI-279	N			Brown gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-280	Y	21"	18"	Amber brown to black to silver gray, discontinous PSM layer, moderate petroleum odor
SWI-281	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-282	Υ	18"	16"	Black to amber brown PSM layer, strong petroleum odor and sheen
SWI-283	Υ	20"	8"	Dark amber brown sticky PSM layer, strong petroleum odor, gray sand below clay at 7'
SWI-284	N			Gray sand to 7.5' clay below, no sheen, no odor, no PSM
SWI-285	N	-		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-286	N	-		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-287	N			Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-288	N	1		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-289	N	1		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-290	N	-		Gray sand to 8' no clay, no sheen, no odor, no PSM
SWI-291	N			Gray sand to 7' clay below, no sheen, no odor, no PSM
SWI-292	Υ	12"	19"	Dark amber brown sticky PSM layer, free product saturating entire interval, strong petroleum odor no clay,
SWI-293	Υ	68"	3"	Amber brown sticky PSM layer, strong petroleum odor, under clay
SWI-294	Υ	30"	34"	Amber brown to black discontinuous PSM layer intermixed with clay
SWI-295	Υ	32"	27"	Dark amber brown discontinuous PSM layer, strong petroleum odor and sheen
SWI-296	N	-		Gray sand to 1' clay below, no sheen, no odor, no PSM
SWI-297	Y	31"	14"	Amber brown discontinuous PSM layer, moderate petroleum odor
SWI-298	Y	16"	48"	Amber brown to silver gray PSM, free product saturating entire interval, strong petroleum odor, located 10' from river
SWI-299	N	-		Brown sand at 18-21" there is slight refusal at 5', PSM not continuous, moderate petroleum odor, no sheen
SWI-300	N			Gray sand, septic odor, and staining black from 19-21" not PSM, no sheen, refusal at 4"
SWI-301	N			Brown gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-302	Υ	20"	20"	Amber brown to dark blackish gray PSM layer, very strong petroleum odor and sheen present, PSM located right above clay layer at 40"
SWI-303	N			Brown sand down to 6' at clay, no sheen, no odor, no PSM
SWI-304	N			Gray brown sand to 6' clay below, no sheen, no odor, no PSM
				4/6/2007 Dark blackish gray PSM layer, strong petroleum odor and heavy sheen resembles free phase product,
SWI-305	Y	28"	8"	refusal at 4'
SWI-306	Y	35"	12"	Amber brown to black, sticky PSM layer, strong petroleum odor
SWI-307	Y	20"	35"	Dark amber brown, discontinuous PSM layer, strong petroleum odor and sheen
SWI-308	N			Dark gray sand some black staining at 7.5', no sheen, no odor, no PSM
SWI-309 SWI-310	N N			Dark gray sand and clay, no staining, no sheen, no odor, no PSM Gray sand, moderate petroleum odor 2-3', no sheen, no PSM, no clay
SWI-310	N N			Gray sand, moderate petroleum odor 2-3 , no sneen, no PSM, no clay Gray sand to 6' clay below, no sheen, no odor, no PSM
SWI-311	N N	-		Gray sand to 3' clay below, no sheen, no odor, no PSM Gray sand to 3' clay below, slight PSM at 5', no sheen, mild odor
SWI-312 SWI-313	N N			Gray sand to 3 clay below, slight PSM at 5, no sneen, mild odor Gray sand to 5' refusal at 5', no sheen, no odor, no PSM
SWI-313	N N			Gray sand to 5' refusal at 5', no sheen, no odor, no PSM Gray sand to 5' refusal at 5', no sheen, no odor, no PSM
SWI-314	N			Brown sand to 3.5' refusal at 3.5', no sheen, no odor, no PSM
J441-919	IN			promit sails to 5.5 fetudal at 5.5, tip sheeti, tip buot, tip FOM

Notes:

All borings were advanced from 0-8' bgs. Visual characteristics were noted in each boring. PSM = Petroleum Source Material ppm = parts per million
Results shaded denote the presence of PSM PID - photoionization detector

August 1, 2016

Ground Surface Top of Casing Top of Screen **Bottom of Scree** Top of Screen **Bottom of Screen** May 2015 May 2015 Well Depth Well Diamete Well ID Elevation Elevation Elevation Depth to Water Nater Table Elevati Depth (inches) (ft bgs) (ft above msl) (ft above msl) (ft bgs) (ft bgs) (ft msl) (ft below TOC) (ft msl) (ft msl) MW-1 4.87 7.67 15.0 5.0 15.0 -0.13 -10.13 3.37 4.30 MW-2 5.25 7.90 15.0 5.0 15.0 0.25 -9.75 3.05 4.85 2 MW-3R 4.21 5.90 10.0 2.0 10.0 2.21 -5.79 2.05 3.85 PDMW-1T 5.21 7.71 8.0 3.0 8.0 2.21 -2.79 2.63 5.08 PDMW-2T 4.87 7.37 8.0 3.0 8.0 1.87 2.07 5.30 -3.13 PDMW-3T 7.05 9.55 8.0 3.0 4.05 -0.95 4.85 4.70 2 8.0 PDMW-4T 6.85 9.35 8.0 3.0 8.0 3.85 -1.15 4.58 4.77 2 PDMW-5T 8.09 4.91 5.59 8.0 3.0 8.0 2.59 -2.41 3.18 2 PDMW-6P 6.74 9.24 8.0 -1.26 4.55 4.69 2 3.0 8.0 3.74 PDMW-7P 2 4.74 7.24 8.0 3.0 8.0 1.74 -3.26 2.51 4.73 PDMW-8R 2 6.43 9.08 9.0 1.0 9.0 5.43 -2.57 3.98 5.10 PDMW-9T 6.91 9.38 8.0 3.0 8.0 3.91 -1.09 4.31 5.07 PDMW-10R 5.04 7.03 9.44 9.0 1.0 9.0 6.03 -1.97 4.40 PDMW-12P 2 6.92 9.42 8.0 3.0 8.0 3.92 -1.08 4.41 5.01 PDMW-13P 5.59 8.09 8.0 3.0 8.0 2.59 -2.41 3.13 4.96 PDMW-15T 5.94 8.44 8.0 3.0 8.0 2.94 -2.06 3.24 5.20 PDMW-17T 6.60 9.10 8.0 3.0 8.0 3.60 -1.40 4.2 4.90 PDMW-19P 6.77 9.27 8.0 3.0 8.0 3.77 -1.23 4.45 4.82 PDMW-20T 5.14 7.64 8.0 3.0 8.0 2.14 -2.86 2.42 5.22 PDMW-21T 4.59 7.09 8.0 3.0 8.0 1.59 -3.41 2.09 PDMW-22T 6.13 8.63 8.0 3.0 3.13 -1.87 3.56 5.07 8.0 2 PDMW-23R 10.07 8.0 4.96 7.36 1.0 -0.64 5.11 2 8.0 6.36 PDMW-24T 4.21 2 6.69 9.19 7.5 2.5 7.5 4.19 -0.81 4.98 PDMW-26T 4.77 7.27 8.0 1.99 5.28 2 3.0 8.0 1.77 -3.23 PDMW-27R 2 6.42 8.78 9.5 1.5 9.5 4.92 -3.08 4.00 4.78 PDMW-29D 5.58 8.56 49.5 44.5 49.5 -38.92 -43.92 6.95 1.61 PDMW-30P 6.63 9.13 8.0 3.0 8.0 3.63 -1.37 4.71 4.42 PDMW-31R2 5.47 8.23 8.0 1.0 8.0 4.47 -2.53 3.08 5.15 2 9.40 2.5 4.38 5.02 PDMW-32R 2 7.31 7.5 7.5 4.81 -0.19 8.48 10.0 3.72 4.76 PDMW-33R2 5.40 15.0 15.0 -4.60 -9.60 25.0 PDMW-35P 5.73 9.53 15.0 25.0 -9.27 5.01 4.52 -19.27 9.92 12.0 2.0 5.26 4.66 PDMW-36P 6.18 12.0 4.18 -5.82 PDMW-37P 6.93 9.75 8.0 3.0 8.0 3.93 -1.07 5.05 4.70 PDMW-38P 6.47 10.37 12.0 2.0 12.0 4.47 -5.53 5.42 4.95 PDMW-40R 8.06 22.0 22.0 -8.74 4.92 3.14 6.26 15.0 -15.74 2 PDMW-45R 6.03 8.59 10.0 2.0 10.0 4.03 -3.97 3.99 4.60 1 PDMW-46 6.34 9.82 10.0 5.0 10.0 1.34 -3.66 5.13 4.69 2 8.52 4.04 PDMW-47 5.80 10.0 5.0 10.0 0.80 -4.20 4.48 2 PDMW-48 2 3.70 6.45 7.0 2.0 7.0 1.70 -3.30 3.02 3.43 PDMW-49 2.85 5.25 7.0 2.0 7.0 0.85 -4.15 2.89 2.36 PDMW-50 5.00 7.80 7.0 2.0 7.0 3.00 -2.00 3.67 4.13 PDMW-51 4.26 7.46 7.0 3.7 3.76 2.0 7.0 2.26 -2.74 PDMW-52 4.97 7.73 7.0 2.0 7.0 2.97 -2.03 4.03 3.70 PDMW-53 NA NA 8.0 3.0 8.0 NA NA 4.43 NA TMW-1 2 5.13 8.45 13.0 8.0 13.0 -2.87 -7.87 3.08 5.37 TMW-4R 6.47 9.24 9.0 4.44 4.80 2 1.0 9.0 5.47 -2.53 EW-1 6.68 8.45 12.0 2.0 12.0 4.68 -5.32 3.53 4.92 MW-201 7.01 10.27 9.5 2.0 9.5 5.01 -2.49 5.03 5.24 MW-202 6.35 9.15 8.0 2.0 8.0 4.35 -1.65 4.17 4.98 MW-203 6.83 10.00 10.0 2.0 10.0 4.83 -3.17 5.07 4.93 MW-204 6.64 9.13 10.0 2.0 10.0 4.64 -3.36 3.63 5.50

bgs = below ground surface msl = mean sea level

ft = feet

Table 3 - Well Construction Details.xlsx Page 1 of 1

		msl) (ft below TOC) Elevation (ft ms 3.71 3.96		6/3	3/2014	11/6	6/2014	5/18/	2015	11/10	/2015
WELL ID	Top of Casing Elevation (ft msl)	•	Water Table Elevation (ft msl)	Depth to water (ft below TOC)	Water Table Elevation (ft msl)	Depth to water (ft below TOC)	Water Table Elevation (ft msl)	Depth to water (ft below TOC)	Water Table Elevation (ft msl)	Depth to water (ft below TOC)	Water Table Elevation (ft msl)
MW-1	7.67	3.71	3.96	3.44	4.23	3.6	4.17	3.37	4.30	3.28	4.39
MW-2	7.90	Not Found	NA	Not Found	NA	3.64	4.26	3.05	4.85	3.08	4.82
MW-3R	5.90	1.12	4.78	2.21	3.69	2.3	3.60	2.05	3.85	2.00	3.90
PDMW-1T	7.71	2.68	5.03	2.72	4.99	2.94	4.77	2.63	5.08	2.44	5.27
PDMW-2T				2.49	4.88		4.09				
	7.37	2.03	5.34			3.28		2.07	5.30	1.90	5.47
PDMW-3T	9.55	3.96	5.59	4.94	4.61	5.42	4.13	4.85	4.70	3.33	6.22
PDMW-4T	9.35	3.55	5.8	5.07	4.28	5.2	4.15	4.58	4.77	2.69	6.66
PDMW-5T	8.09	2.29	5.8	Damaged	NA	4.05	4.04	3.18	4.91	2.00	6.09
PDMW-6P	9.24	3.47	5.77	4.96	4.28	5.18	4.06	4.55	4.69	2.91	6.33
PDMW-7P	7.24	2.36	4.88	2.86	4.38	2.98	4.26	2.51	4.73	2.30	4.94
PDMW-8R	9.08	3.34	5.74	4.3	4.78	4.85	4.23	3.98	5.10	3.34	5.74
PDMW-9T	9.38	3.83	5.55	4.65	4.73	5.11	4.27	4.31	5.07	3.37	6.01
PDMW-10R	9.44	3.79	5.65	5.02	4.42	5.37	4.07	4.4	5.04	2.75	6.69
PDMW-12P	9.42	4.27	5.15	5.04	4.38	5.02	4.40	4.41	5.01	2.47	6.95
PDMW-13P	8.09	3.07	5.02	3.67	4.42	3.8	4.29	3.13	4.96	2.10	5.99
PDMW-14TR	8.00	Damaged	NA	Destroyed	NA	Destroyed	NA	Destroyed	NA	Destroyed	NA
PDMW-15T	8.44	2.67	5.77	4.03	4.41	4.32	4.12	3.24	5.20	1.92	6.52
PDMW-17T	9.10	3.18	5.92	4.67	4.43	4.97	4.13	4.2	4.90	2.56	6.54
PDMW-19P	9.27	4.38	4.89	5.3	3.97	5.32	3.95	4.45	4.82	2.63	6.64
PDMW-20T	7.64	2.11	5.53	2.68	4.96	3.31	4.33	2.42	5.22	1.87	5.77
PDMW-21T	7.09	4.22	2.87	5.41	1.68	5.71	1.38	5	2.09	3.66	3.43
PDMW-22T	8.63	3.29	5.34	4.11	4.52	4.31	4.32	3.56	5.07	2.41	6.22
PDMW-23R	10.07	4.72	5.35	5.62	4.45	5.86	4.21	5.11	4.96	3.16	6.91
PDMW-24T	9.19	4.25	4.94	4.72	4.47	4.81	4.38	4.21	4.98	2.81	6.38
PDMW-26T	7.27	2.07	5.2	2.26	5.01	2.85	4.42	1.99	5.28	1.81	5.46
PDMW-27R	8.78	2.94	5.84	4.46	4.32	4.82	3.96	4	4.78	2.45	6.33
PDMW-29D	8.56	6.3	2.26	5.88	2.68	7.5	1.06	6.95	1.61	5.12	3.44
PDMW-30P	9.13	6.15	2.98	6.08	3.05	5.96	3.17	4.71	4.42	4.19	4.94
PDMW-31R2	8.23	3.13	5.1	3.92	4.31	4.11	4.12	3.08	5.15	2.92	5.31
PDMW-32R	9.40	4.54	4.86	4.92	4.48	5.12	4.28	4.38	5.02	3.56	5.84
PDMW-33R2 PDMW-35P	8.48 9.53	4.54	3.94	3.98	4.50	4.03	4.45	3.72	4.76	3.31	5.17
PDMW-35P	9.92	5.08 4.99	4.45	5.23 5.63	4.30 4.29	5.02 5.51	4.51 4.41	5.01 5.26	4.52 4.66	4.77 5.05	4.76 4.87
PDMW-37P	9.75	4.45	4.93 5.3	5.82	3.93	5.77	3.98	5.05	4.70	4.21	5.54
PDMW-38P	10.37	4.78	5.59	6.12	4.25	6.07	4.30	5.42	4.70	4.85	5.52
PDMW-40R	8.06	5.21	2.85	5.27	2.79	5.52	2.54	4.92	3.14	4.16	3.90
PDMW-45R	8.59	2.94	5.65	4.92	3.67	4.92	3.67	3.99	4.60	2.68	5.91
PDMW-46	9.82	Not Installed	Not Measured	5.81	4.01	6.46	3.36	5.13	4.69	5.83	3.99
PDMW-47	8.52	Not Installed	Not Measured	4.18	4.34	5.47	3.05	4.48	4.04	3.57	4.95
PDMW-48	6.45	Not Installed	Not Measured	4.51	1.94	3.1	3.35	3.02	3.43	3.09	3.36
PDMW-49	5.25	Not Installed	Not Measured	3.12	2.13	2.55	2.70	2.89	2.39	2.83	2.42
PDMW-50	7.80	Not Installed	Not Measured	4.4	3.40	3.91	3.89	3.67	4.13	3.52	4.28
PDMW-51	7.46	Not Installed	Not Measured	4.16	3.30	4.41	3.05	3.7	3.76	3.75	3.71
PDMW-52	7.73	Not Installed	Not Measured	4.42	3.31	3.58	4.15	4.03	3.70	3.66	4.07
TMW-1	8.45	3.44 1.95		3.44	5.01	4.1	4.35	3.08	5.37	2.88	5.57
TMW-4R	9.24	4.81 3.36		4.81	4.43	5.4	3.84	4.44	4.80	2.81	6.43
EW-1	8.45	2.48	5.97	2.48	5.97	4.36	4.09	3.53	4.92	1.72	6.73
MW-201	10.27	4.98	5.29	4.98	5.29	5.7	4.57	5.03	5.24	3.40	6.87
	9.15	4.09	5.06	4.09	5.06	4.81	4.34	4.17	4.98	2.53	6.62
MW-202	00										
MW-203	10.00	4.87	5.13	4.87	5.13	5.7	4.30	5.07	4.93	3.09	6.91

TOC - Top of Casing MSL - Mean Sea Level

					Location:	EW-1	MW-3R	PDMW-8R	PDMW-10R	PDMW-13P	PDMW-19P	PDMW-23R	PDM	W-26T	PDMW-32R	PDMW-33R2	PDMW-45R	PDMW-46	PDMW-47	PDMW-47	PDMW-48	PDMW-53	ТМУ	V-1	TMW-4R
				San	ple Date:	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/11/2015	11/12/2015	11/11/2015	11/12/2015	11/12/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	7/25/2016	7/25/2016	11/11/2015	11/11/2015	11/12/2015	11/12/2015	11/12/2015
				Sam	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Duplicate	Normal	Normal	Dup	Normal	Normal
				9	ample ID:	EW-	MW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	DUP-	PDMW-	PDMW-	PDMW- 33R2_1111201	PDMW-	PDMW-	PDMW-47	PDMW-47	PDMW-	PDMW-	DUP-	TMW-	TMW-
	Т				1	1_11122015	3R_11122015	8R_11122015	10R_11122015	13P_11112015	19P_11122015	23R_11112015	01_11122015	26T_11122015	32R_11112015	5	45R_11112015	46_11112015	1 5 1111 47	1 5 1111 47	48_11112015	53_11112015	02_11122015	1_11122015	4R_11122015
Method Group	Analyte	Background		Type 4 RRS		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	ACENAPHTHYLENE	1.4	1	510	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	ANTHRACENE	0.2	0.2	5100	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/l	NA	NA	NA 	NA	NA	NA	NA	NA	NA	NA	NA	NA 	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	BENZO(G,H,I)PERYLENE				ug/l	NA	NA	NA 	NA	NA	NA	NA	NA 	NA	NA	NA	NA 	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	65	ug/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.7 U 9.7 U	9.5 U 9.5 U	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE	0.2	0.2		ug/l ug/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.7 U	9.5 U	NA NA
FAITS	FLUORANTHENE	0.5	1000		ug/I	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.7 U	9.5 U	NA NA
	FLUORENE	0.5	1000		ug/I	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.7 U	9.5 U	NA NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.7 U	9.5 U	NA NA
	1-METHYLNAPHTHALENE				ug/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	11	9.5 U	NA NA
	2-METHYLNAPHTHALENE				ug/l	NA	NA	NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA NA	13	9.5 U	NA
	NAPHTHALENE	1	20	20	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63	32	NA
	PHENANTHRENE	0.22	0.2	510	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	PYRENE	0.5	1000		ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 U	9.5 U	NA
	TOTAL PAHs				ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87	58	NA
	BENZENE	1	5	31.2	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51	52	NA
	ETHYLBENZENE	1	700		ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA
VOCs	TOLUENE	1	1000	1900	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA
	XYLENES (TOTAL)	2	10000		ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	220	NA
	TOTAL BTEX				ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	271	272	NA
	ARSENIC	0.018	0.018	0.018	mg/l	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	0.12	0.15	0.02 U
	CHROMIUM	0.013	0.1		mg/l	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023	0.029	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/l	0.01 U	0.01	0.01 U	0.01 U	0.011	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U
	NICKEL	0.13	0.1	2	mg/l	0.06	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	NA	0.04 U	NA	NA	NA	NA	NA	0.04 U	0.04 U	NA
	ZINC	0.96	2	31	mg/l	0.17	0.035	NA	NA	0.02 U	NA	NA	NA	NA	120	NA	NA	NA	NA	NA	NA	NA	63	78	NA
	AMMONIA AS N	15	30	30	mg/l	270	1.7	60	7.9	2.7	4.9	2.8	600	600	1.3	15	0.8	1.1	19	19	28	3.6	3400	3600 F1	3.1
Miscellaneous	NITRATE (AS N)		10		mg/l	0.05 U	0.056	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.17	0.05 U	0.05 U	0.05 U	NA	NA	0.11	0.05 U	230	250 F1	0.05 U
	NITRITE (AS N)				mg/l	0.05 U	0.11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.073	NA	NA	0.11	0.05 U	10 U	10 U	0.05 U

Notes:

Shaded cell indicates comparison standard used in data evaluation.
Highlighted cell indicates analytical result exceeds comparison criteria.

Bold and italic text indicates analytical result exceeds background value.

- Nitrate comparison standard based on the Maximum Contaminant Level (MCL) established by the USEPA National Primary Drinking Water Regulations.

ND - No constituents detected above the laboratory minimum detection limit.

F1: Indicates MS or MSD recover was outside of specified limits.

U: Incidactes constituent was not detected above value shown.

				L	ocation:			EW-1				MV	V-1		М	W-2			MW-3R				MW-201		MW-202	MW-204		PDMW-7P				PDMW-8R		
				Samı	ple Date:	6/4/2014	11/4/2014	5/20/2015	5/20/2015	11/12/2015	6/3/	2014	11/3/2014	5/20/2015	11/4/2014	5/19/2015	6/5/2014	11/5	/2014	5/19/2015	11/12/2015	6/4/2014	5/20/2015	5/20/2015	11/4/2014	11/5/2014	6/4/2014	11/4/2014	5/19/2015	6/3/2	2014	11/5/2014	5/20/2015	11/12/2015
				Samp	ole Type:	Normal	Normal	Dup	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal
				S-0	mnlo ID:	EW- 01_0604201	EW-	DUP- 02 0520201	EW-	EW-	MW-	DUP- 01 0603201	MW-	MW-	MW-	MW-	MW-	MW- 3R 1105201	DUP-	MW- 3R 0519201	MW- 3R_1112201	MW- 201 060420	DUP- 03 0520201	MW- 201 052020	MW- 202 110420	MW-	PDMW- 07P 060420	PDMW- 7P 1104201	PDMW- 7P 0519201	PDMW- 8R 0603201	DUP- 02 0603201	PDMW- 8R 1105201	PDMW- 8R 0520201	PDMW- 8R 1112201
				1	IIIIpic ID.	4	1_11042014	5	5	1_11122015	4	4	1_11032014	1_05202015	2_11042014	2_05192015	4	4	2_11052014	5 5	5	14	5	15	14	14	14	4	5	4	4	4	5	5
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	ACENAPHTHYLENE	1.4	1	510	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U⁴	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	ANTHRACENE	0.2	0.2	5100	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	BENZO(K)FLUORANTHENE				ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	CHRYSENE	0.2	0.2	65	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	FLUORANTHENE	0.5	1000		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	FLUORENE	0.5	1000		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	1-METHYLNAPHTHALENE				ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	2-METHYLNAPHTHALENE				ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	NAPHTHALENE	1	20	20	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	PHENANTHRENE	0.22	0.2	510	ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	PYRENE	0.5	1000		ug/L	10 U	NA	NA	NA	NA	9.5 U	9.6 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	9.9 U	NA	NA	9.9 U	9.9 U	NA	NA	NA
	TOTAL PAHs				ug/L	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
	BENZENE	1	5	31.2	ug/L	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1 U	1 U	NA	NA	NA
	ETHYLBENZENE	1	700		ug/L	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1 U	1 U	NA	NA	NA
	METHYLENE CHLORIDE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	TOLUENE	1	1000	1900	ug/L	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1 U	1 U	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	NA	NA	NA	NA	2 U	2 U	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2 U	2 U	NA	NA	NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.02 U	0.02	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.029	0.028	0.02 U	0.02 U	0.02 U
	CHROMIUM	0.013	0.1		mg/L	0.012	0.013	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	0.01 U	NA	NA	0.01 U	0.01 U	NA	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.039	0.01 U	0.01	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
	NICKEL	0.13	0.1	2	mg/L	0.1	0.1	0.044	0.044	0.06	0.04 U	0.04 U	NA	NA	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
	ZINC	0.96	2	31	mg/L	0.55	0.47	0.19	0.19	0.17	0.02 U	0.02 U	NA	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.089	0.035	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA	NA	0.02 U	0.02 U	NA	NA	NA
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	1100	540	260	320 F1	270	25	18	25	21	23	13	3.9	6.5	2.2	1.9	1.7	15	1.1	1.1	1	340	12	16	16	62	63	94	64	60
Miscellaneous	NITRATE (AS N)		10		mg/L	0.05 U	0.29	0.097	0.063	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.056	0.07	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
	NITRITE (AS N)				mg/l	NA	NA	0.05 U	0.05 U	0.05 U	NA	NA	NA	0.05 U	NA	0.17	NA	NA	NA	0.078	0.11	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.11	NA	NA	NA	0.05	0.05 U
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Shaded cell indicates comparison standard used in data evaluation.
Highlighted cell indicates analytical result exceeds comparison criteria.

Bold and Rolic text indicates analytical result exceeds background value.

ND - No constituents detected above the laboratory minimum detection limit. F1: Indicates MS or MSD recovery is outside of specified limits

J: Indicates constituent was detected at an estimated value.

UH: Indicates sample analyzed outside of specified hold time.

UJ: Indicates constituent was not detected at an estimated value shown.

Monitoring wells MW-3R, PDMW-8R, PDMW-10R, PDMW-11R, PDMW-14TR, PDMW-23R, PDMW-31R, PDMW-32R, PDMW-33R, PDMW-39R, PDMW-40R, PDMW-45R, and TMW-4R were installed to replace wells MW-3, PDMW-8T, PDMW-3T, PDMW-10T, PDMW-11P, PDMW-14T, PDMW-23T, PDMW-30P, PDMW-32R, PDMW-32R, PDMW-33R, PDMW-39P, PDMW-40P, PDMW-45R, and TMW-4 respectively.

				L	ocation:		PDM\	V-10R			PDM	W-13P			PDMV	W-19P			PDMW-23R		PDMW-23T	PDMW-24T			PDM\	W-26T				PDMW-29D		PDM\	<i>N</i> -30P	PDMW-30R
				Sam	ple Date:	6/5/2014	11/5/2014	5/20/2015	11/12/2015	6/5/2014	11/5/2014	5/19/2015	11/11/2015	6/4/2014	11/3/2014	5/20/2015	11/12/2015	11/5/2014	5/19/2015	11/11/2015	6/4/2014	11/5/2014	6/5/2014	11/6	2014	5/21/2015	11/12/2015	11/12/2015	6/3/2014	11/6/2014	5/21/2015	11/3/2014	5/20/2015	6/3/2014
				Samp	ole Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Dup	Normal															
				0-	I. ID.	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	DUP-	PDMW-	DUP-	PDMW-															
				Sa	imple ID:	10R_060520 14	10R_110520 14	10R_052020 15	10R_111220 15	13P_060520 14	13P_110520 14	13P_051920 15	13P_111120 15	19P_060420 14	19P_110320 14		19P_111220 15	23R_110520 14	23R_051920 15	23R_111120 15	23R_060420 14	24T_110520 14	26T_060520 14	26T_110620 14	03_1106201 4	26T_052120 15	01_1112201 5	26T_111220 15	29D_060320 14	29D_110620 14	29D_052120 15	30P_110320 14	30P_052020 15	30R_060320 14
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result									
	ACENAPHTHENE	1	2000		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	ACENAPHTHYLENE	1.4	1	510	ug/L	9.8 ∪*	NA	NA	NA	9.7 U*	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U⁴	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	ANTHRACENE	0.2	0.2	5100	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	BENZO(G,H,I)PERYLENE				ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	BENZO(K)FLUORANTHENE				ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	CHRYSENE	0.2	0.2	65	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	FLUORANTHENE	0.5	1000		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	FLUORENE	0.5	1000		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	1-METHYLNAPHTHALENE				ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	2-METHYLNAPHTHALENE				ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	NAPHTHALENE	1	20	20	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	PHENANTHRENE	0.22	0.2	510	ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	PYRENE	0.5	1000		ug/L	9.8 U	NA	NA	NA	9.7 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	NA	10 U	NA	9.8 U	NA	NA	NA	NA	NA	9.7 U	NA	NA	NA	NA	9.8 U
	TOTAL PAHs				ug/L	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
	BENZENE	1	5	31.2	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U
	ETHYLBENZENE	1	700		ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U
	METHYLENE CHLORIDE				ug/L	5 U	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	TOLUENE	1	1000	1900	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U
	XYLENES (TOTAL)	2	10000		ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
	METHYL TERT BUTYL ETHER				ug/L	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
	ARSENIC	0.018	0.018	0.018	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.025	0.02 U	0.02 U	0.025	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U									
	CHROMIUM	0.013	0.1		mg/L	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	0.01 U	NA	0.01 U	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	0.01 U
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.021	0.033	0.01 U	0.011	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	NA	0.04 U	NA	NA	NA	NA	NA	0.04 U	NA	NA	NA	NA	0.04 U									
	ZINC	0.96	2	31	mg/L	0.02 U	NA	NA	NA	0.02 U	NA	NA	NA	NA	NA	NA	0.02 U	NA	0.02 U	NA	NA	NA	NA	NA	0.02 U	NA	NA	NA	NA	0.02 U				
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	13	12	7.3	7.9	1.9	2	2.7	2.7	5.6	4.5	4.7	4.9	2.3	1.5	2.8	3.6	NA	600	470	490	550	600	600	11	10	11	2.2	2	1.6
Miscellaneous	NITRATE (AS N)		10		mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.21	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.11	NA	1.1	0.051	0.07	0.26	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U				
	NITRITE (AS N)				mg/l	NA	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U	NA	NA	0.05 U	NA	0.05 U	NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Shaded cell indicates comparison standard used in data evaluation.
Highlighted cell indicates analytical result exceeds comparison criteria.

Bold and italic text indicates analytical result exceeds background value.

ND - No constituents detected above the laboratory minimum detection limit. F1: Indicates MS or MSD recovery is outside of specified limits

J. Indicates constituent was detected at an estimated value.

UH: Indicates sample analyzed outside of specified hold time.

UJ: Indicates constituent was not detected at an estimated value shown.

Monitoring wells MW-3R, PDMW-8R, PDMW-10R, PDMW-11R, PDMW-14TR, PDMW-23T, PDMW-31R, PDMW-32R, PDMW-32P, PDMW-33T, FDMW-33T, FD

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				L	ocation:		PDM\	W-32R			PDM\	W-33R2		PDMW-40R		PDM\	W-45R			PDM	IW-46				PDM	W-47						PDM	W-48	
				Sam	ple Date:	6/4/2014	11/6/2014	5/19/2015	11/11/2015	6/4/2014	11/4/2014	5/20/2015	11/11/2015	11/5/2014	6/3/2014	11/3/2014	5/20/2015	11/11/2015	6/4/2014	11/3/2014	5/20/2015	11/11/2015	6/4/2014	11/4/2014	5/20/2015	11/11/2015	5/25/2016	5/25/2016	7/25/2016	7/25/2016	6/4/2014	11/4/2014	5/19/2015	11/11/2015
				Samp	ole Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Duplicate	Normal	Duplicate	Normal	Normal	Normal	Normal
					I. ID.	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-					PDMW-	PDMW-	PDMW-	PDMW-
				- Sa	impie iu:	32R_060420 14	32R_110620 14	32R_051920 15	32R_111120 15	014		33R2_05202 015	33R2_11112 015	40R_110520 14		45R_110320 14	45R_052020 15	45R_111120 15	46_0604201	46_1103201 4	46_0520201 5	46_1111201 5	47_0604201 4	47_1104201 4	47_0520201 5	47_1111201 5	PDMW-47	PDMW-47	PDMW-47	PDMW-47	48_0604201 4	48_1104201 4	48_0519201 5	48_1111201 5
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	ACENAPHTHYLENE	1.4	1	510	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	ANTHRACENE	0.2	0.2	5100	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	BENZO(K)FLUORANTHENE				ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	CHRYSENE	0.2	0.2	65	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	FLUORANTHENE	0.5	1000		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	FLUORENE	0.5	1000		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	1-METHYLNAPHTHALENE				ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	2-METHYLNAPHTHALENE				ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	NAPHTHALENE	1	20	20	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	PHENANTHRENE	0.22	0.2	510	ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	PYRENE	0.5	1000		ug/L	9.9 U	NA	NA	NA	9.7 U	NA	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	NA	NA	NA	9.8 U	NA	NA
	TOTAL PAHs				ug/L	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
	BENZENE	1	5	31.2	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
	ETHYLBENZENE	1	700		ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
	METHYLENE CHLORIDE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	TOLUENE	1	1000	1900	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	NA	0.02 U	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	NA	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01	NA	NA	NA	NA	NA	0.01 U	NA	NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	NA	NA
	ZINC	0.96	2	31	mg/L	0.031	0.21	0.11	0.12	0.02 U	NA	NA	NA	NA	0.02 U	NA	NA	NA	0.4	NA	NA	NA	0.02 U	NA	NA	NA	NA	NA	NA	NA	NA	0.02 U	NA	NA
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	11	7	0.7	1.3	16	20	14	15	44	8.6	4.7	3.6	0.8	2.9	2.2	0.6	1.1	72	110	39	39	29	30	19	19	27	22	8.5	28
Miscellaneous	NITRATE (AS N)		10		mg/L	0.05 U	0.05 U	0.05 U	0.17	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U	0.11
	NITRITE (AS N)				mg/l	NA	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.05 U	NA	NA	NA	0.05 U	0.05 U	NA	NA	0.05 U	0.073	NA	NA	0.052	0.05 U	NA	NA	NA	NA	NA	NA	0.19	0.11
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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ND - No constituents detected above the laboratory minimum detection limit. F1: Indicates MS or MSD recovery is outside of specified limits

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Monitoring wells MW-3R, PDMW-8R, PDMW-10R, PDMW-11R, PDMW-14TR, PDMW-23T, PDMW-31R, PDMW-32R, PDMW-32P, PDMW-33T, FDMW-33T, FD

				ı	Location:		PDMW-49			PDMW-50			PDMW-51			PDM	W-52			PDMW-53					TMW-1					TMV	V-4R		FIEL	DQC
				Sam	ple Date:	6/6/2014	11/4/2014	5/18/2015	6/4/2014	11/6/2014	5/19/2015	6/6/2014	11/6/2014	5/18/2015	6/5/2	2014	11/6/2014	5/18/2015	11/4/2014	5/19/2015	11/11/2015	6/5/2014	11/5/	2014	5/21/2015	5/21/2015	11/12/2015	11/12/2015	6/3/2014	11/4/2014	5/19/2015	11/12/2015	6/3/2014	11/6/2014
				Sam	ple Type:	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Dup	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal									
				S	ample ID:	PDMW- 49 0606201	PDMW- 49 1104201	PDMW- 49_0518201	PDMW- 50_0604201	PDMW- 50 1106201	PDMW- 50_0519201	PDMW- 51_0606201	PDMW- 51 1106201	PDMW- 51_0518201	PDMW- 52_0605201	DUP- 03_0605201	PDMW- 52 1106201	PDMW- 52_0518201	PDMW- 53 1104201	PDMW- 53_0519201	PDMW- 53 1111201	TMW- 01_0605201	TMW-	DUP-	DUP_01_05		DUP- 02 1112201	TMW-	TMW- 4R 0603201	TMW- 4R 1104201	TMW- 4R 0519201	TMW- 4R 1112201	FB- 01_0603201	FB- 01_1106201
	T	I	l	L		4	4	5	4	4	5	4	4	5	4	4	4	5	4	5	5	4	1_11052014	1_11052014	212015	12015	5	1_11122015	4	4	5	5	4	4
Method Group	Analyte	-	Type 3 RRS	Type 4 RR		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result									
	ACENAPHTHENE ACENAPHTHYLENE	1.4	2000	510	ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U*	9.7 U 9.7 U	9.8 U 9.8 U	9.9 U 9.9 U	9.7 U 9.7 U	9.7 U 9.7 U	9.5 U 9.5 U	9.9 U 9.9 U	NA NA	NA NA	NA NA	9.8 U 9.8 U	9.6 U 9.6 U									
	ANTHRACENE	0.2	0.2	5100	ug/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	9.6 U
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	9.6 U									
	BENZO(A)PYRENE	0.2	0.1	0.39	ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	9.6 U									
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	9.6 U									
	* * *	1	0.2	0.65																	1	ļ												
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE				ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U	9.7 U 9.7 U	9.8 U 9.8 U	9.9 U 9.9 U	9.7 U 9.7 U	9.7 U 9.7 U	9.5 U 9.5 U	9.9 U 9.9 U	NA NA	NA NA	NA NA	9.8 U 9.8 U	9.6 U 9.6 U									
	CHRYSENE	0.2	0.2	65	ug/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	9.6 U									
BALLO	DIBENZO(A.H)ANTHRACENE	0.2	0.2	65		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	9.8 U								NA NA	NA NA	NA NA	9.8 U	9.6 U
FARS	FLUORANTHENE		1000		ug/L	NA NA	-													NA NA	NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA NA	NA NA	NA NA	9.8 U	
	FLUORANTHENE	0.5	1000		ug/L	NA NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA NA	NA	NA	NA NA		NA NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U		NA NA	NA NA		9.6 U
		0.5			ug/L			NA	NA	NA	NA	NA	NA		9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA			9.8 U	9.6 U							
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	NA	NA	NA	NA	NA	NA	NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	1-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	15	12	12	11	9.7 U	11	9.5 U	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	15	16	16	11	9.7 U	13	9.5 U	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	NAPHTHALENE	1	20	20	ug/L	NA	NA	NA	NA	NA	NA	NA	39	44	40	44	40	63	26 F1	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	PHENANTHRENE	0.22	0.2	510	ug/L	NA	NA	NA	NA	NA	NA	NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	PYRENE	0.5	1000		ug/L	NA	NA	NA	NA	NA	NA	NA	9.8 U	9.7 U	9.8 U	9.9 U	9.7 U	9.7 U	9.5 U	9.9 U	NA	NA	NA	9.8 U	9.6 U									
	TOTAL PAHs				ug/L	NA	NA	NA	NA	NA	NA	NA	69	72	68	66	40	87	58	ND	NA	NA	NA	ND	ND									
	BENZENE	1	5	31.2	ug/L	NA	NA	NA	NA	NA	NA	NA	81	80	77	48	47	51	52	1 U	NA	NA	NA	1 U	1 U									
	ETHYLBENZENE	1	700		ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U									
	METHYLENE CHLORIDE				ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
VOCs	TOLUENE	1	1000	1900	ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U									
	XYLENES (TOTAL)	2	10000		ug/L	NA	NA	NA	NA	NA	NA	NA	250	420	420	120	110	220	220	2 U	NA	NA	NA	2 U	2 U									
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	TOTAL BTEX				ug/L	NA	NA	NA	NA	NA	NA	NA	331	500	497	168	157	271	272	ND	NA	NA	NA	ND	ND									
	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	NA	NA	NA	NA	NA	0.095	0.13	0.15	0.14	0.16 F1	0.12	0.15	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U									
	CHROMIUM	0.013	0.1		mg/L	NA	NA	NA	NA	NA	NA	NA	0.017	0.026	0.03	0.019	0.032	0.023	0.029	0.01 U	NA	NA	NA	0.01 U	0.01 U									
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U									
	NICKEL	0.13	0.1	2	mg/L	NA	NA	NA	NA	NA	NA	NA	0.04 U	0.041	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	0.04 U									
	ZINC	0.96	2	31	mg/L	NA	NA	NA	NA	NA	NA	NA	0.072	0.097	0.094	0.072	0.077	0.063	0.078	0.02 U	NA	NA	NA	0.02 U	0.066									
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	AMMONIA AS N	15	30	30	mg/L	0.42	1.7	0.63	7.8	7.7	5.9	7	5.7	3	11	8.8	0.9	0.58	5.5	1.6	3.6	2600	3800	3900	3700	4300	3400	3600 F1	6.1	7.8	6.8	3.1	0.054	0.05 U
Miscellaneous	NITRATE (AS N)		10		mg/L	0.05 UH	0.05 U	0.05 UH	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	170	120	100	280	290	230	250 F1	0.05 U	0.05 U	0.05 U	0.05 U	0.17	0.17				
	NITRITE (AS N)				mg/l	NA	NA	0.05 U	NA	NA	0.088	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	0.089	0.05 U	NA	NA	NA	50 U	50 UF1	10 U	10 U	NA	NA	0.081	0.05 U	NA	NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									

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Monitoring wells MW-3R, PDMW-8R, PDMW-10R, PDMW-11R, PDMW-14TR, PDMW-23T, PDMW-31R, PDMW-32R, PDMW-32P, PDMW-33T, FDMW-33T, FD

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 F					Locat	ion:							EW-1																			MW-1													
The image					Sample D	ate: 4/4/2008	7/19/	2008 10/8/2	12/3/	2009 6/19/2	2010 12/16	6/2010 6/14	1/2011 12	2/6/2011 12/12/20	113 6/4/20	14 11/4/201	4 5/20/20	5/20/2015	11/12/2015	10/15/1997	9/28/1999	11/18/1999	2/24/2000	5/16/2000 8/22	2000 1/10/2	7/12/200	1 2/7/20	02 9/11/2002	2/7/2003	6/27/2003	3	1/30/200	7/23/	2004 3/7/200	06 4/3/2008	7/21/200	8 10/6/20	12/3/2009	6/16/2010	6/13/2011	12/11/2013	6/3/201/	4	11/3/2014 5/20/2	2015
Part					Sample Ty	/pe: Normal	Nor	mal Norn	nal Nor	mal Norn	mal No	rmal No	rmal N	Normal Norma	l Norm	al Norma	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal No	nal Norn	nal Norma	l Norm	al Normal	Normal I	ormal	Dup	Normal	Dup Nor	mal Norma	al Normal	Normal	Norm	al Normal	Normal	Normal	Normal	Normal	Dup	Normal Norm	nal
The column					Sample	ID: EW-	EV	W- EW	/- EV	W- EW	V- E	W- /16/201	EW-	EW- 1 12/12/	EW-	EW-		- EW-	1 EW-	MW-	MW-	MW-	MW-		v- M <i>v</i>		MW-	- MW-	MW-	m *** 1 D	MW-	MW-	MW-1	v- MW-	MW-	MW-	MW-	- MW-	MW-	MW-1-	MW-	MW-	DUP- 0603201	MW- MY	N-
					Cumpic	1_4/4/200	1_7/19	9/2008 1_10/8/	2008 1_12/3	3/2009 1_6/19/	/2010 1-12/	1_0	61411 1_1	12062011	4	1_110420	14 02_0320	5	1_11122015	7	1_9/28/1999	9	1_2/24/2000 1	1_5/16/2000 1_8/2	/2000 1_1/10	2001 1_7/12/20	01 1_2/7/2	002 1_9/11/2002	1_2/7/2003 1_6		2003 1	_1/30/2004	2004 1_7/23	/2004 1_3/7/20	1_4/3/200	8 1_7/21/20	08 1_10/6/2	2008 1_12/3/200	9 1_6/16/2010	061311	3	4	4 1.	11032014 1_0520	2015
	Method Grou	o Analyte	Background	Type 3 RRS	Type 4 RRS Un	its Result	Res	sult Resi	ult Res	sult Resu	ult Re	sult Re	sult F	Result Resul	t Resu	lt Result	Resu	lt Result	Result	Result	Result	Result	Result	Result Re	ult Res	ult Result	Resu	lt Result	Result	esult F	Result	Result	Result Res	ult Resul	lt Result	Result	Resu	lt Result	Result	Result	Result	Result	Result	Result Resu	ult
			1	2000	ug	y/L 0.19 U	0.11		_			NA	NA				_							10 1	J 1l	J 1U	1 U		0.2 U					_	_		_			NA					
*** *** *** *** *** *** *** *** *** **			-	1	510 ug	/L 0.19 U	0.11	9 U 0.19				NA	NA				_	_		1	-				_		1 U										_		++	NA					_
				++	5100 ug	/L 0.19 U	0.11	9 U 0.19	_			NA	NA				_	_		1								_												NA					_
					0.39 05	VL 0.19 U	0.11	9 U 0.19	_			NA NA	NA NA		_		_	_		1	-			0.2 U 0.3			_					_			0.19 U		19 U			NA NA					_
			-	1	0.65 us	/L 0.19 U	0.1	9 U 0.19				NA NA	NA.				_	_		_	-		1 1	0.2 U 0.1											0.19 U		19 U	_	+	NA.					A .
					ug	/L 0.19 U	0.11	9 U 0.19				NA	NA				NA	_	NA	_	NA NA		 	NA N	NA NA	. NA	NA.	0.2 U	0.2 U	0.2 U	0.2 U	_			0.19 U		_		++	NA				NA N	A
		BENZO(K)FLUORANTHENE			ug	/L 0.19 U	0.11	9 U 0.19	U 0.11	9 U 1.9 L	uJ 1	NA	NA	NA 9.2 U	10 L	NA.	NA	NA	NA	0.5 U	NA	NA	NA	NA N	NA NA	. NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 1 U	0.19 U	0.19 U	19 U	0.19 U	0.19 U	NA	10 U	9.5 U	9.6 U	NA N	A
		CHRYSENE	0.2	0.2	65 ug	/L 0.19 U	0.11	9 U 0.19	U 0.11	9 U 1.9 L	uJ 1	NA	NA	NA 9.2 U	10 L	NA.	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U 0.:	U 0.2	U 0.2 U	0.2 U	J 0.2 U	0.2 U).2 U	0.2 U	0.2 U	0.2 U 0.2	U 1 U	0.19 U	0.19 U	19 U	0.19 U	0.23	NA	10 U	9.5 U	9.6 U	NA N	A
	PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug	/L 0.19 U	0.11	9 U 0.19	U 0.11	9 U 1.9 L	u u	NA	NA	NA 9.2 U	10 L	NA.	NA	NA	NA	1 U	NA	NA	NA	NA N	NA NA	NA NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 1 U	0.19 U	0.19 U	19 U	0.19 U	0.19 U	NA	10 U	9.5 U	9.6 U	NA NA	
		FLUORANTHENE			ug	/L 0.19 U	0.19	9 U 0.19			uJ 1	NA	NA				_						0.5 U				_									0.54	19 U		0.66	NA	10 U				
			0.5		ug	/L 0.19 U	0.11				_				_	_	_	_			-		 						-						-			_							-
				0.4	ug	/L 0.19 U	0.19								_	_	_																				_	_							_
			+		ug	VL 0.191	0.19	9 U 0.19				NA NA	NA.		10 L			_	NA NA	+	NA NA		NA NA	NA h			_								-		_		+ +	NA NA					A
			1	20	20 uc	VL 0.19 U	0.11	9 U 0.19	_			NA .	NA .		10 L		_	_	NA NA		NA NA		1.0	10 1		_	_											_		NA NA					Α
			0.22		510 ug		0.11		_						_	_	_			_							_								_	_	_								λ
		PYRENE	0.5	1000	ug	/L 0.19 U	0.11	9 U 0.19	U 0.11	9 U 3.4	J I	NA	NA	NA 9.2 U	10 L	NA.	NA	NA	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U 0.5	U 0.5	U 0.5 U	0.5 L	J 0.2 U	0.5	0.36	0.47	0.26	0.42 0.4	1.1	0.38	0.66	19 U	0.54	1.1	NA	10 U	9.5 U	9.6 U	NA N	4
		TOTAL PAHs			ug	/L ND	N	ID NO) N	ID 5.7	7 1	NA	NA	NA ND	ND	NA	NA	NA	NA	0.26	NA	0.22	ND	ND N) NE) ND	ND	ND	1.04	0.62	1.34	0.47	0.95 0.7	2 1.1	0.62	2.5	ND	1.49	3.39	NA	ND	ND	ND	NA N	,
		BENZENE	1	5	31.2 ug	/L 1 U	1	U 1 L	J 1	U 1 U	JJ 1	NA	NA	NA 1 U	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	10 1	J 1L	J 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	J 1 U	1 U	1 U	1 U	10	1 U	NA	1 U	1 U	1 U	NA NA	
			1	700	ug	/L 1 U	1	U 1 L	J 1	U 1U	JJ 1	NA	NA	NA 1 U	1 U	_	_			-			1 U	1 U 1	J 1 L	J 1 U	1 U	1 U	1 U	1 U	1 U	1 U		J 1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U		
					ug	/L NA	N	IA NA	N.	IA NA	A 1	NA	NA	NA NA	NA		_	_				1 U	1 U	1 U 1	J 11	J 1U	NA	NA	NA .	NA	NA			A 1U	NA	NA	NA	NA	NA.	NA	NA	NA .	NA		_
Column	V/00°				ug	/L NA	N N	IA NA	N.	IA NA		NA NA	NA NA	NA 5U	NA NA			_		-		NA 111	NA 111	NA N	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U	NA NA	NA NA		_
	VOCS		1	1000	1900 us	/L 1U	1	U 1L	J 1	U 1U		NA NA	NA.	NA 1U	1 U		_						1			, 10 J 10	10	1 U	10		-					1 U	1 U	1 U	1 U	NA.	1 U	1 U	1 U		_
			2		ug	/L 2U	2	U 21	J 2	U 2U	JJ N	NA .	NA .	NA 2U	2 U	NA.	_	_		-	-		1 U	10 1	J 11	J 1U	2 U	2 U	2 U		-	2 U		U 2U	2 U	2 U	2 U	2 U	2 U	NA .	2 U	2 U	2 U		_
		METHYL TERT BUTYL ETHER			ug	/L 10 U	10	U NA	. N	IA 10 U	JJ 1	NA	NA	NA 10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	. NA	NA.	NA	NA	NA	NA	NA	NA N	A 10 U	10 U	10 U	NA	NA	10 U	NA	10 U	NA .	NA	NA NA	A
		TOTAL BTEX			ug	/L ND	N	ID NE) N	ID ND	1 0	NA	NA	NA ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND N) NE) ND	ND	ND	ND	ND	ND	ND	ND N	D ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA NA	A
		ARSENIC	0.018	0.018	0.018 mg	g/L 0.05 U	0.00	6 U 0.01	U 0.0	2 U 0.02	1 U	NA	NA	NA 0.02 L	0.02	U 0.02	0.02 (U 0.02 U	0.02 U	0.01 U	NA	0.01 U	0.01 U	0.01 U 0 .	2 0.07	79 0.01 U	0.01	U 0.01 U	0.01 U	.01 U	0.022	0.01 U	0.01 U 0.0	U 0.01 U	J 0.01 U	0.01 U	0.01 (U 0.02 U	0.02 U	0.018 U	0.02 U	0.02 U	0.02 U	0.02 U 0.02	U
□ 日本		BERYLLIUM		0.004	mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA	NA	NA NA			_	_			-		!	NA N	NA NA	NA NA			NA	NA		NA			NA	NA	NA	NA	NA	NA	NA	NA .	NA		1
		BORON			m	g/L NA	N	IA NA	N.	IA NA	۱ ۱	NA	NA	NA NA	NA	NA.	NA	_		1			NA	NA N	NA NA	NA NA	NA	NA	NA NA	NA		NA		A NA	NA	NA	NA	NA	NA.	NA	NA	NA .	NA		_
		CALCIUM METAL		0.005	m	yl NA	N N	IA NA	N N	IA NA	, ,	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_		1			NA NA	NA N	A NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA		A NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		_
			0.013	0.1	m	yL 0.05 U	0.0					NA NA	NA.			_	_	_					 			_																			A .
	Metals, Total	LEAD			0.015 mg	y/L 0.025 U	0.0	0.05			_	1.04 0.	02 U					_			NA NA	0.005 U	 				_										_		+	NA .					ı U
日本日本 日本日本 日本日本 日本日本 日本日本 日本日本 日本日本 日本		MAGNESIUM			mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	. NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA NA	A
一种性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性		MERCURY		0.002	mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA	NA	NA NA	NA	NA	NA	NA	NA	0.0002 U	NA	NA	NA	NA N	NA NA	. NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA NA	A.
一种性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性		NICKEL	0.13	0.1	2 mg	g/L 0.24	0.2	22 0.2	0.0	0.12	2 1	NA	NA	NA 0.04	0.1	0.1	0.044	0.044	0.06	0.04 U	NA	0.04 U	0.04 U	0.04 U 0.0	U 0.04	U 0.04 U	0.04	U 0.04 U	0.04 U	.04 U (0.04 U	0.04 U	0.04 U 0.04	U 0.04 U	J 0.04 U	0.04 U	0.04 (U 0.04 U	0.04 U	NA	0.0026	0.04 U	0.04 U	NA NA	١.
					mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA	NA					_			-						_	_								NA	NA	NA	NA	NA	NA	NA .			_
		SODIUM			mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA .	NA .				_	_			-		!			_	_	_								NA	NA	NA	NA	NA NA	NA	NA			_
	-	ARSENIC		0,018	0.018 mg		_	-	J 0.1	ID 0.75	, ,	NA NA	NA NA	NA NA	0.55 NA			_		U.02 U NA	NA NA							_			0.02 U NA	_				0.02 U NA	0.02 l	0.02 U NA	0.02 U NA	NA NA	0.02 U NA	0.02 U	0.02 U NA	NA NA	<u>-</u>
					mg		+-		N N	IA NA	, ,	NA .	NA .	NA NA	NA NA			_		NA NA	NA NA		1 1								NA				_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N	A
					mg			_	-						_			_	_									_	-							_			NA.			NA NA	NA		A
EACH CLOST		CHROMIUM	0.013		mg	g/L NA	N	IA NA	N.	IA NA	A 1	NA	NA	NA NA	NA			_	NA	NA	NA		0.01 U		U 0.01	U NA	NA	NA	NA NA	NA	NA	NA	NA N	_	_	NA	NA	NA	NA.	NA	NA	NA .	NA		4
NCHEL 0.13 0.1 2 mgL NA	metais, Dissolved	LEAD	0.007	0.015	0.015 mg	y'L NA	N	IA NA	N.	IA NA	Α 1	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	0.005 U	0.005 U	NA 0.0	5 U NA	NA NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA NA	١
2NC 0.96 2 31 mg l NA		MERCURY			m	_			_						_			_		_					_	_		_						_	_			_	+						_
ALFALENITY DTAL (AS CACOS)		NICKEL		1 -			_	_	_						_			_	_	+	-		1		_	_	_	_			-			_			_	_	+ +						_
ALCALARITY, TOTAL (AS CACCO)	-	ZINC	0.96	2			_								_	_		_		+					_	_		_						_	_			_	+						_
AMICHAI 15 30 30 mg L 97 41 430 2.5 240 360 530 mg L 97 41 430 2.5 240 360 530 460 160 540 27 27 17 18 17 18 15 24 23 16 25 18			1				_									_				+								_				_			_		_	_	+ +						_
EICARBONATE mgL NA			15	30												_		_								_	_								_	_	_		+						_
Miscellaneus					mg		_		_	_	_					_	_			_					NA NA			_				_			_	NA	_		+						_
		CARBONATE			mg	g/L NA	N	IA NA	N.	IA NA	Α 1	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	. NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA.	NA	NA	NA NA	NA	NA NA	4
	Miscellaneous	CONDUCTIVITY			uml	nos/ m NA	N	IA NA	N.	IA NA	۱ ۸	NA .	NA	NA NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA N	NA NA	NA NA	NA	NA	NA NA	NA	NA .	NA.	NA N	A NA	NA	NA	NA	NA	NA.	NA	NA	NA .	NA	NA NA	A
NITRATE (AS N) 10 mg/L NA		NITRATE (AS N)	**	10	m	g/L NA	N	IA NA	N.	IA NA	Α 1	NA .	NA	NA 0.044	0.05	U 0.29	0.097	7 0.063	0.05 U	NA	NA	NA	NA	NA N	N/	NA NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U 0.05	U
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SOLDS, TOTAL DISSOLVED mg L NA	SVOC*					_			_																											_									
	34008	,,-DIONLONOBENZENE	<u> </u>		ug	y- INA	N	NA NA	. N	NA NA	<u> </u>		nw t	· 10	NA	N/A	NA	NA	N/A	NA	NA	NA	NA.	ises P	, NA	. NA	N/A	NA.	INA	***	AIN.	INA	Art N	, NA	NA.	NA	NA.	INA	NA	ivet	10	TWA .	INA	-en NA	

Notes:

| Studed cell indicates comparison standard used in data evaluation.
| Splighted cell indicates comparison standard used in data evaluation.
| Splighted cell indicates analytical result exceeds comparison criteria.
| Rold and falls from indicates analytical result exceeds background value.
| Splighted cell indicates analytical result exceeds background value.
| Splighted cell indicates analytical result exceeds background value.
| Unicidates constituent was not detected above when those in the property of the pro

					Location:												MW-2																				MW-3R									
				San	nple Date: 10/15	/1997 8/1	10/1999 11/17	17/1999 2/	2/24/2000	5/15/2000 8	/21/2000	1/9/2001	7/12/2001	9/11/2002	2/7/2003 6/	27/2003	1/30/2004	7/23/2004	3/7/2006	4/3/2008	7/21/2008	10/5/2008	12/3/2009	6/17/	2010 6/13/2	2011 11/4/2	2014 5/19	9/2015 8/29/2	2001 2/7/2	9/13/200	2 2/6/2003	6/26/2003 1/30	7/22/2004	3/8	/2006	4/4/2008	7/22/2008	10/6/2008	12/7/2009 6	5/19/2010	6/17/2011	2/13/2013	6/5/2014	11/5/2014	5/19/20	015 11/12/2015
				San	nple Type: Nor	mal N	lormal No	ormal I	Normal	Normal I	Normal	Normal	Normal	Normal	Normal N	lormal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Du	p Nor	mal Norr	mal Norm	mal No	rmal Norr	mal Norr	mal Normal	Normal	Normal Nor	nal Normal	No	rmal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Du	up Norm	al Normal
					M	W-	MW-	ww-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW- 2_7/21/2008	MW-	MW- 2_12/3/2009 DUP_12	-2- MY	w- MW	/-2- MV	W- M 42014 2_051	IW- MV	V- MV	w- MW-	MW-	MW- M	/- MW-	MW-3R	MW-3R	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	MW-	JP. MW-	- MW-
				•	Sample ID: 2_10/1	2_8	MW- 8/10/1999 2_11/			2_5/15/2000 2_6					2_2/7/2003 2_6	5/27/2003 2	_1/30/2004	2_7/23/2004 2_	_3/7/2006	2_4/3/2008	2_7/21/2008	2_10/5/2008	2_12/3/2009 DUP_12	2/3/20 2_6/17	W- MW 7/2010 0613	311 2_1104	42014 2_051	192015 3R_8/2 1	9/200 3R_2/7		3R_2/6/2003	3R_6/26/200 3R_1/	0/200 3R_7/22/20 4	00 Filtered_3/8 /2006	8 Unfiltered_3 /8/2006	3R_4/4/2008	3R_7/22/200 8	3R_10/6/200 8	3R_12/7/200 3R 9	R_6/19/201 0	3R_061711 ³	R_12/13/20 3R 13	R_0605201 3R		3R_0519 52014	9201 3R_1112201 5
Method (oup Analyte	te Backg	ground Ty	pe 3 RRS Type 4 RR	S Units Res	sult R	Result Re	esult I	Result	Result	Result	Result	Result	Result	Result I	Result	Result	Result	Result	Result	Result	Result	Result Res	ult Res	sult Res	ult Res	ult Re	sult Res	ult Res	ult Result	Result	Result Re	ult Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Res	sult Resu	ilt Result
	ACENAPHTHENE		1	2000	ug/L 1	U	10 1	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.59	0.42	0.48	0.47	0.61	0.45	0.46	0.72	0.8 0.8	3 0.4	45 N/	A NA	A N	NA 1	J 1	U 0.44	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA P	IA NA	NA
	ACENAPHTHYLENE	1	1.4	1 510	ug/L 1	U	1 U 1	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	A N	NA 1	J 1l	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U*	NA N	IA NA	NA
	ANTHRACENE	0	0.2	0.2 5100	ug/L 0.2	U I	0.2 U 0.).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.19	9 U N/	A NA	A N	NA 0.2	U 0.2	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
	BENZO(A)ANTHRACE!	ENE 0	0.2	0.1 3.9	ug/L 0.2	U	0.2 U 0.).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	A N	NA 0.4	J 0.2	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
	BENZO(A)PYRENE	0	0.2	0.2 0.39	ug/L 0.2	U	0.2 U 0.).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.19	9 U N/	A NA	A N	NA 0.2	U 0.2	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
	BENZO(B)FLUORANTI-		0.2	0.2 0.65	_		0.2 U 0.).2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.19	9 U N/	A NA	_		_	_	0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N		NA
	BENZO(G,H,I)PERYLE				ug/L 0.5		NA N	NA	NA		NA	NA	NA	0.2 U	.		0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	_				0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 W	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N		NA
	BENZO(K)FLUORANTI				ug/L 0.5		NA N	NA	NA		NA	NA .	NA	0.2 U		0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA					0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
DAMO	DIBENZO(A,H)ANTHRA		0.2	0.2 65	ug/L 0.2		0.2 U 0.1).2 U	0.2 U	0.2 U NA	0.2 U NA	0.2 U	0.2 U NA	0.2 U		0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U	0.19 U 0.19 0.19 U 0.19	U 0.11	9 U N/	A NA	_			_	0.2 U 0.2 U	0.2 U 0.2 0.2 U 0.4		0.2 U	0.21 U 0.21 II	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA NA	9.1 U 9.1 U	10 U	NA N	IA NA	NA NA
FARS	FLUORANTHENE		0.5	1000	ug/L 0.5		0511 0	.5 U	0.5.11		0.5 U	0.511	0.5 U	0.20		0.2 U	0.24	0.2 U	0.19 0	0.19 U	0.19 0	0.19 0	0.19 U 0.19	U 0.11	90 10	A NA		NA 0.5	_		0.2 U	0.2 U 0.2		0.20	0.21 0	0.19 0	0.20	0.19 0	0.19 0	0.19 03	NA NA	9.1 U	10.11	NA N	IA NA	NA NA
	FLUORENE		0.5	1000	ug/L 0.5				0.5 U		0.5 U	0.5 U	0.5 U	0.2 U		0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.1	9U N/	A NA					0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA NA	9.1 U	10 U	NA N	IA NA	NA NA
	INDENO(1,2,3-CD)PYR			0.4	ug/L 0.5	iU	NA N	NA.	NA.	NA	NA	NA.	NA .	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	A N	NA NA			0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA !	IA NA	NA
	1-METHYLNAPHTHALI	ENE -			ug/L N	A	NA N	NA	NA	NA	NA	NA.	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.76 U 0.76	U 0.3	8U N/	A NA	A N	NA NA	A NA	A 0.34	0.2 U	0.2 U 0.2		0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.75 U	0.38 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
	2-METHYLNAPHTHALE	ENE -			ug/L N	A	NA N	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.19	9 U N/	A NA	A N	NA NA	A NA	A 0.24	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA P	IA NA	NA
	NAPHTHALENE		1	20 20	ug/L 1	U	1 U 1	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	A N	NA 1	J 1 L	U 4.1	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA P	IA NA	NA
	PHENANTHRENE	0.	.22	0.2 510	ug/L 0.2	U	0.2 U 0.).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U 0.19	U 0.1	9 U N/	A NA	A N	NA 0.2	U 0.2	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA P	IA NA	NA
	PYRENE	0	0.5	1000	ug/L 0.5	U	0.5 U 0.).5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.22	0.2 U	0.29	0.2 U	0.19 U	0.24 J	0.19 U	0.19 U	0.19 U 0.19	U 0.11	9 U N/	A NA	A N	NA 0.5	U 0.5	U 0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.21 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 UJ	NA	9.1 U	10 U	NA N	IA NA	NA
	TOTAL PAHs				ug/L N	D	ND N	ND	ND	ND	ND	ND	ND	ND	0.81	0.42	1.01	0.47	0.61	0.69	0.46	0.72	0.8 0.8	3 0.4	45 N/	A NA	A N	NA 0.4	4 NE	D 5.32	ND	ND N) ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA N	IA NA	NA
	BENZENE		1	5 31.2	ug/L 1	U	1 U 1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1U 1U	J 1	U N/	A NA		NA 1 I	J 1l	U 1 U	1 U	1 U 1	J 1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	NA N	IA NA	NA
	ETHYLBENZENE		1	700	ug/L 1	U	1 U 1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1U 1U	J 1	U N/	A NA		NA 1	J 1 L		1 U	1 U 1		NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	NA N	IA NA	
	p/m-XYLENE	-			ug/L N	A	10 1	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA NA	NA	NA	NA	1 U	NA	NA	NA	NA NA	N N	IA N/			NA N	_		NA	NA N	NA NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA N		_
1100-	METHYLENE CHLORIE o-XYLENE	IDE -			ug/L N	Α .	5U N	NA	NA 1 U	NA 1 U	NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 10 U	NA NA	NA NA	NA NA	NA NA	N N	IA NA	A NA		NA NA	A NA		NA NA	NA N	NA NA	NA NA	NA 10 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U NA	5 U NA	NA N		
VOCS	TOLUENE		1	1000 1900	ug/L N		111 1	111	10	10	111	111	111	111	111	1 U	111	111	111	1 U	1 U	1.II	10 10	1 1	II N	A NA		NA 1			111	1U 1	_	NA NA	100	111	111	111	111	1111	NA NA	1 U	111	NA N		
	XYLENES (TOTAL)		2	10000	ug/L 2	U	10 1	1 U	10	10	1 U	10	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2U 21	, . J 2	U N/	A NA		NA 21			2 U	2U 2	J 2 U	NA NA	2 U	2 U	2 U	2 U	2 U	2 UJ	NA NA	2 U	2 U	NA N		
	METHYL TERT BUTYL	LETHER -			ug/L N	A	NA N	NA	NA	NA	NA	NA.	NA	NA	NA NA	NA	NA	NA.	10 U	10 U	10 U	NA	NA NA	10	U N	A NA	A N	NA NA	A NA	A NA	NA	NA N	NA NA	NA.	10 U	10 U	10 U	NA	NA NA	10 UJ	NA.	10 U	10 U	1 AN	IA NA	NA
	TOTAL BTEX				ug/L Ni	D	ND N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND NE) N	ID N/	A NA	A N	NA NE	O NE	D ND	ND	ND N) ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA N	IA NA	NA
	ARSENIC	0.0	018	0.018 0.018	mg/L 0.0	02	0.078 0.	0.039	0.024	0.016	0.038	0.028	0.018	0.04	0.044	0.024	0.02	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U 0.02	U 0.00	2 U 0.03	6 U 0.02	2 U 0.0	02 U 0.01	U 0.01	I U 0.014	0.01 U	0.01 U 0.0	U 0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	NA	0.0076	0.02 U	0.02 U 0.00	2 U 0.02 I	U 0.02 U
	BERYLLIUM			0.004	mg/L 0.00	15 U	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	A N	NA N	A NA	A NA	NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	BORON				mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	A N	NA NA	A NA	A NA	NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	CADMIUM			0.005	mg/L 0.00	15 U	NA N	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	_	NA NA	A NA		NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	CALCIUM METAL				mg/L N	A	NA N	NA	NA		NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA NA	N N		A NA		NA NA			NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	CHROMIUM		013	0.1	mg/L 0.01				0.01 U		0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01			A NA		NA 0.01			0.01 U	0.01 U 0.0		0.01 U	0.01 U	0.019	0.011	0.01 U	0.01 U	0.01 U	NA	0.0042	0.01 U	NA N	IA NA	NA
Metals, Total	MAGNESIUM	0.1	007	0.015 0.015	mg/L 0.00		0.005 U 0.00	005 U (0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U NA	0.005 U	0.005 U 0	0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U NA	0.005 U	0.005 U NA	0.01 U 0.01	U 0.0		A 0.01					0.005 U	0.005 U 0.00	5 U 0.012	0.005 U	0.005 U NA	0.01	0.005 U	0.005 U	0.01 U	0.01 U	NA NA	0.01 U NA	0.01 U	0.01 U 0.0	0.01 0	U 0.01
	MERCURY			0.002	mo/L 0.000	1211	NA N	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	N N	IA N	A NA		NA NA	A N/		NA NA	NA N	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA I	IA NA	NA NA
	NICKEL	0.	.13	0.1 2	mg/L 0.04	4 U (0.04 U 0.0	.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U 0.04	U 0.0	4 U N/	A NA		NA 0.04		_	0.04 U	0.04 U 0.0	U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA .	0.0097	0.04 U	0.04 U 0.4	4 U 0.04 I	U 0.04 U
	POTASSIUM				mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA .	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	A N	NA N	A NA	A NA	NA	NA N	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA 1	IA NA	NA
	SODIUM				mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N	A NA	A N	NA NA	A NA	A NA	NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	ZINC	0.	.96	2 31	mg/L 0.00	2 U (0.02 U 0.0	021 U	0.02 U	0.02 U	0.02 U	0.02 U	0.046	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U 0.02	U 0.00	2U N/	A NA	A N	NA 0.02	2 U 0.02	21 0.041	0.02 U	0.02 U 0.0	U 0.043	0.02 U	0.02 U	0.026	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.01	0.02 U	0.02 U 0.00	2 U 0.089	9 0.035
	ARSENIC	0.1	018	0.018 0.018	mg/L N	A	NA 0.0	.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA NA	N N	IA N/	A NA	A N	NA NA	A NA	A NA	NA	NA N	NA NA	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.02 U	0.01 U	NA	NA	NA	NA N	IA NA	NA
	BERYLLIUM		[0.004	mg/L N		NA N	NA	NA		NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA NA		IA N/			NA NA				NA N		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		NA
	CADMIUM	-		0.005	mg/L N			NA	NA		NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA NA					NA NA			NA	NA N	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		
Metals, Diss	CHROMIUM		_	0.1	mg/L N				0.01 U		NA	NA	NA	NA		NA	NA		NA	NA	0.01 U	NA	NA NA	_	IA N/	_	_	NA NA	_	_	_		. NA	0.01 U	NA .	0.01 U	0.01 U	0.01 U	_	0.01 U	NA	NA		NA N	_	
	LEAD	0.0	007	0.015 0.015					0.005 U		NA	NA	NA NA	NA NA		NA NA	NA		NA	NA	0.005 U	NA NA	NA NA	_	IA N/	_	_	NA NA	_	_			NA NA	0.005 U	NA NA	0.005 U	0.005 U	0.005 U	_	0.04 U	NA	NA NA		NA 0.0		
	MERCURY	-	.13	0.002	mg/L N				NA 0.04 U		NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	-	NA NA	NA NA	NA O O A LI	NA NA	NA NA		IA N/		_	NA NA					NA NA	NA OATI	NA NA	NA O O O O O	NA 0.04 U	NA O O O O O	NA O O A LL	NA 0.00E II	NA NA	NA NA	NA NA	NA N		
	ZINC		.96	2 31		_			0.04 U 0.02 U		NA NA	NA NA	0.02 U	NA NA		NA NA	NA NA		NA NA	NA NA	0.04 U 0.02 U	NA NA	NA NA		IA N/	_		NA NA					NA NA	0.04 U 0.02 U	NA NA	0.04 U 0.02 U	0.04 U 0.02 U	0.04 U 0.02 U		0.005 U 0.02 U	NA NA	NA NA		NA N		
-	ALKALINITY				mg/L N			_	NA NA		NA NA	NA NA	NA	NA NA		NA NA	NA.	-	NA NA	NA NA	NA NA	NA NA	NA NA	_	IA N		_	NA NA	_		_		NA NA	NA	NA NA	0.02 G	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		
	ALKALINITY, TOTAL (A	AS CACO3)			mg/L N			-	NA		NA	NA.	NA NA	NA NA		NA	NA.		NA NA	NA.	NA	NA NA	NA NA		IA N/		_	NA NA			_		. NA	NA NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA		NA N		
	AMMONIA AS N		15	30 30			29 1		23		19	20	20	27		18	19	19	6	7.1	7.1	6.3	4.7 4.8	_	8 15	_		13 3.3			7.8		7.3	NA	1.8	0.8	0.95	0.87	1	0.092 J	1.1	2.6	3.9	6.5 2.		
	BICARBONATE				mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA.	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	A N	NA NA	A NA	A NA	NA	NA N	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA NA
Manetter	CARBONATE				mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	A NA	A N	NA NA	A NA	A NA	NA	NA N	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
Miscellaneou	CONDUCTIVITY				umhos/ cm N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N	A NA	A N	NA NA	A NA	A NA	NA		. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	IA NA	NA
	NITRATE (AS N)			10	mg/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	A 0.05	5 U 0.0	05 U N/	A NA	A NA	NA	NA N	. NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U 0.0	5 U 0.05 I	U 0.056
	NITRITE (AS N)		[mg/l N				NA		NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA NA	_	IA N/	_	A 0.		_	_			NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA N		
	SULFATE	-						-	NA	-	NA	NA	NA	NA		NA	NA	-	NA	NA	NA	NA	NA NA		IA N/			NA NA			_		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA N		
01/22	SOLIDS, TOTAL DISSO								NA NA		NA	NA NA	NA NA	NA NA		NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	_	IA N			NA NA	_		_		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA		NA N		
SVOCs	1,4-DICHLOROBENZE	:NE			ug/L N	A	NA N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	N N	IA N/	n NA	A N	NA NA	N/	A NA	NA	NA N	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA N	IA NA	NA

Notes:

Shaded cell indicates comparison standard used in data evaluation.

"gligified cell indicates analytical result exceeds comparison criteria.

Rold and Rolk test indicates analytical result exceeds background value.

In Narac comparison standard backe on the Maximum Containmant Leve (MCL) established by the USEPA National Primary C

No. No constituents detected above the laboratory minimum detection limit.

It indicates constituent was not detected above value shown.

It indicates constituent was not detected at an estimated value.

Us indicates constituent was not detected at an estimated value.

Nonlineing sells MN 31, PDANY 32, PDANY 310, PDANY 128, PDANY 137, PDANY 318, PDA

				Locatio	n:						MW	V-4												MW-5													MW-201						
				Sample Da	e: 10/16/19	997 8/9/1999	11/17/	1999 2/23/2	5/15/200	00 8/21/2000	1/9/2	2001 7/10/2001	9/11/2002	2/3/2003	6/25/2003	1/29/2004	7/23/2004	10/16/1997	8/9/1999	11/18/1999	2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/11/2001	9/10/2002	2/4/2003	6/25/2003	1/27/2004	7/21/2004	3/8/2006	4/1/2008	7/18/2008	10/9/2008	12/3/2009	6/19/2010	12/16/2010	6/14/2011	12/6/2011	12/11/2013	6/4/2014 5	5/20/2015	5/20/2015
				Sample Typ	e: Norma	al Normal	Norn	nal Norm	nal Norma	l Normal	Nori	mal Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal
				Sample	MW- D: 4_10/16/	100 MW-	MW 4_11/1				M		MW-	MW-	MW-	MW-	MW-	MW- 5_10/16/199	MW-	MW- 5_11/18/199	MW-	MW- 201_3/8/200	MW- 201_4/1/200	MW- 201_7/18/20	MW- 201_10/9/20	MW- 201_12/3/20	MW- 201_6/19/20	MW- 201_12/16/2	MW-201-	MW- 201_120620	MW- 201_12/11/2	MW-	DUP- 3_0520201 20	MW-									
				Comple	7	4_8/9/199	9 4-177	4_2/23/	2000 4_5/15/20	000 4_8/21/200	00 4_1/9/	/2001 4_7/10/2001	4_9/11/2002	4_2/3/2003	4_6/25/2003	4_1/29/2004	4_7/23/2004	7	5_8/9/1999	9	5_2/23/2000	5_5/16/2000	5_8/22/2000	5_1/10/2001	5_7/11/2001	5_9/10/2002	5_2/4/2003	5_6/25/2003	5_1/27/2004	5_7/21/2004	6	8	08	08	09	10	010	061411	11	013	14	5	15
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS Unit	s Resul	t Result	Resi	ult Resu	ult Result	t Result	Res	sult Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000	ug/l	. 1 U	1 U	11		J 1U	1 U	1	U 1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA	NA	NA	10 U	10 U	NA	NA
	ACENAPHTHYLENE	1.4	1	510 ug/l	. 1 U	1 U	11				1		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA	NA.	NA	10 U	10 U	NA	NA
	ANTHRACENE	0.2	0.2	5100 ug/l	. 0.2 U	_	0.2				0.2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W 0.19 W	NA NA	NA	NA	10 U	10 U	NA NA	NA
	BENZO(A)ANTHRACENE BENZO(A)PYRENE	0.2	0.1	0.39 ug/l	. 0.2 U		0.2				0.2		0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 W 0.19 W	NA NA	NA NA	NA NA	10 U	10 U	NA NA	NA NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug/l	0.2 U	_	0.2			_	0.2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 LU	NA.	NA.	NA NA	10 U	10 U	NA NA	NA.
	BENZO(G,H,I)PERYLENE			ug/l	. 0.5 U	_	NA NA		_	NA.	N.	_	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	NA	NA.	NA.	NA	NA	NA.	NA	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA.	NA.	NA	10 U	10 U	NA.	NA.				
	BENZO(K)FLUORANTHENE			ug/l	. 0.5 U	NA	NA	NA NA	NA NA	NA	N/	IA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 UJ	NA	NA	NA	10 U	10 U	NA	NA				
	CHRYSENE	0.2	0.2	65 ug/l	. 0.2 U	0.2 U	0.2	U 0.2 l	U 0.2 U	0.2 U	0.2	2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 UJ	NA	NA	NA	10 U	10 U	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug/l	. 1 U	NA	NA	NA NA	NA NA	NA.	N/	IA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA	NA	NA	10 U	10 U	NA	NA				
	FLUORANTHENE	0.5	1000	ug/l	. 0.5 U	0.5 U	0.5	U 0.5 L	U 0.5 U	0.5 U	0.5	5 U 0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 LU	NA	NA	NA	10 U	10 U	NA	NA				
	FLUORENE	0.5	1000	ug/l	. 0.5 U	0.5 U	0.5	U 0.5 L	U 0.5 U	0.5 U	0.5	5 U 0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U*	0.19 UJ	NA	NA	NA	10 U	10 U	NA	NA				
	INDENO(1,2,3-CD)PYRENE		0.4	ug/l	. 0.5 U		NA			NA.	N/		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA	NA	NA	10 U	10 U	NA	NA				
	1-METHYLNAPHTHALENE			ug/l	. NA	NA NA	NA NA		NA NA	NA NA	N/	_	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.19 U	0.19 U 0.19 U	0.2 U	0.19 U	0.8 U	0.39 LU	NA	NA NA	NA NA	10 U		NA NA	NA NA				
	2-METHYLNAPHTHALENE NAPHTHALENE		20	20 ug/l	. NA	_	1 L			_	11		0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	1 U	NA 1 U	1 U	NA 1 U	NA 1 U	1 U	NA 1 U	NA 1 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 W 0.19 W	NA NA	NA NA	NA NA	10 U	10 U	NA NA	NA NA
	PHENANTHRENE	0.22	0.2	510 ug/l	. 0.2 U		0.2				0.2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 LU	NA NA	NA NA	NA NA	10 U	10 U	NA NA	NA NA
	PYRENE	0.5	1000	ug/l	. 0.5 U	_	0.5				0.5		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 W	NA.	NA.	NA	10 U		NA.	NA.				
	TOTAL PAHs			ug/l	. ND	ND	NE	_) ND	ND	NI	ID ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	NA .
	BENZENE	1	5	31.2 ug/l	. 1 U	1 U	1 (J 1 U	J 1 U	1 U	1	U 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA.	NA	1 U	1 U	NA	NA
	ETHYLBENZENE	1	700	ug/l	. 1 U	1 U	11	J 1 U	J 1U	1 U	11	U 1U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA	NA	1 U	1 U	NA	NA
	p/m-XYLENE			ug/l	. NA	1 U	1 (J 1 U	J 1U	1 U	11	U 1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	METHYLENE CHLORIDE			ug/l	. NA	5 U	NA	NA NA	NA NA	NA.	N/	IA NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
VOCs	o-XYLENE			ug/l	. NA	1 U	1 (1 U	11		NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900 ug/l	. 10	1 U	11				11		1 U	10	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	10	10	1 U	1 U	1 U	10	1 U	1 U	1 U	1 U	1 UJ	NA	NA	NA	1 U	1 U	NA	NA
	XYLENES (TOTAL) METHYL TERT BUTYL ETHER	2	10000	ug/l	. 2 U	1 U NA	1 L			1 U NA	1 I		2 U NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	2 U	2 U 10 U	2 U 10 U	2 U	2 U NA	2 UJ 10 UJ	NA NA	NA NA	NA NA	2 U 10 U	2 U NA	NA NA	NA NA					
	TOTAL BTEX			ug/l	. ND	ND ND	NE.			ND ND	NI	_	ND	ND	ND ND	ND ND	ND	ND ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND	ND ND	ND	ND	ND	ND ND	NA.	NA.	NA NA	ND ND	ND ND	NA.	NA NA
	ARSENIC	0.018	0.018	0.018 mg/	L 0.01 L	J 0.01 U	0.01	U 0.01	U 0.01 U	0.01 U	0.01		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	NA.	NA.	NA	0.02 U		0.02 U	0.02 U
	BERYLLIUM		0.004	mg/	L 0.005 I	J NA	NA	NA NA	NA NA	NA.	N/	IA NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BORON			mg/	L NA	NA	NA	NA NA	NA NA	NA	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005	mg/	L 0.005 I	J NA	NA	NA NA	NA NA	NA.	N/	IA NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL			mg/	L NA	NA	NA	NA NA	NA NA	NA.	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1	mg/	L 0.01 L		0.01				0.01	_	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	0.01 U	0.01 U	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015 mg/	0.0051		0.005				_		0.005 U	0.005 U NA	0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U	0.009	0.01	0.009	0.026	0.01 U NA	0.01 U	0.01 U	0.01 U	0.013	0.01 U NA	_	0.01 U NA
	MAGNESIUM MERCURY		0.002	mg/	L 0.0002	NA U NA	NA NA			NA NA	N/		NA NA	NA NA	NA NA	NA NA	NA NA	0.0002 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NCKFI	0.13	0.002	2 mg/	L 0.0002		0.04		_	_	0.04		0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0002 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	NA.	NA NA	0.0039			0.04 U
	POTASSIUM			mg/	L NA	NA.	NA NA	_		_	N/	IA NA	NA .	NA	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA.	NA	NA.	NA.	NA	NA	NA NA	NA	NA	NA	NA.	NA.	NA.	NA	NA NA	NA NA	NA.	NA
	SODIUM			mg/	L NA	NA	NA	NA NA	NA NA	NA	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	ZINC	0.96	2	31 mg/	L 0.02 L	J 0.02 U	0.02	U 0.02	U 0.02 U	0.02 U	0.02	2 U 0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.036	0.039	0.045	0.033	0.044	NA	NA	NA	0.033	0.02 U	0.02 U	0.02 U
	ARSENIC	0.018	0.018	0.018 mg/	L NA	NA	0.01	U 0.01	U NA	NA	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	BERYLLIUM		0.004	mg/	L NA	NA	NA	NA NA	NA NA	NA.	N/		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA
	CADMIUM		0.005	mg/	L NA	NA	NA			NA	N/		NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA .	NA									
Metals, Dissolved	CHROMIUM	0.013	0.1	mg/	L NA		0.01		_	_	N/		NA NA	NA NA	NA NA	NA NA	NA	NA	NA	0.01 U	0.01 U	NA NA	NA NA	NA NA	NA	NA	NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA			NA NA
	MERCURY	0.007	0.015	0.015 mg/			0.005 NA		_	_	N/	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U NA	0.005 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA									
	NICKEL	0.13	0.002	2 mg/	+	_			_	_	N/	_	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	0.04 U	0.04 U	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA			NA.				
	ZINC	0.96	2	31 mg/	+	_	0.02	_		-	N/		NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	0.02 U	0.02 U	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA		NA.	NA.
	ALKALINITY			mg/	L NA	NA			_	_	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL (AS CACO3)			mg/	L NA		NA.		_	_	N/		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA
	AMMONIA AS N	15	30	30 mg/	L NA	11	10	9	9.3	11	14	4 14	13	14	10	11	12	NA	6.1	7.9	5.1	5.6	4.8	5.4	6.2	6.1	4.7	2.3	2.7	4.2	25	4.5	3.3	1.2	6	10 J	NA	23	NA	3.8	15	1.1	1.1
	BICARBONATE			mg/	L NA	NA	NA	NA NA	NA NA	NA	N/	IA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE			mg/	L NA	_	NA		_	_	N/		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA
	CONDUCTIVITY			umhc em	s/ NA	_	NA				N/		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			NA
	NITRATE (AS N)		10	mg/	+				_	_	_	IA NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15			0.05 U						
	NITRITE (AS N) SULFATE			mg/			NA NA				N/		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			0.05 U NA
	SOLIDS, TOTAL DISSOLVED	1		mg/	L NA	_	NA NA				N.		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE			mg/	_	_	_	_				IA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	1 U			NA.							
<u> </u>		•				•	-	•		•		•		•	•			•		•					•			•										•	•				

Note:

| Daded cell indicates comparison standard used in data evaluation.
| Mighlighted cell indicates analytical result exceeds comparison criteria.
| Bold and Role cert indicates analytical result exceeds background value.
| Finitizate comparison instandard based on the Maximum Contaminant Level (MCL) established by the USEPA National Primary C
| NO - No constituents detected above the Indocratory minimum detection limit.
| Lindicates constituent was not detected above value shown.
| Lindicates constituent was not detected above value shown.
| Lindicates constituent was not detected at an estimated value.
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					Location:				MW-202							MW	-203										MW-204						
					ple Date:	3/8/2006	4/1/2008	7/19/2008	10/9/2008	12/1/2009	6/18/2010	11/4/2014	3/8/2006	4/2/	2008	7/19/2008	10/8/2008	12/1/2009	6/18	/2010	4/3/2008	7/20/2008	10/7/	2008	12/1/2009	3/23/2010	6/16	5/2010	9/14/2010	12/15/2010	6/15/2011	12/6/2011	11/5/2014
				Sam	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal
				Si	iample ID:	MW- 202_3/8/200 6	MW- 202_4/1/200 8	MW- 202_7/19/20 08	MW- 202_10/9/20 08	MW- 202_12/1/20 09	MW- 202_6/18/20 10	MW- 202_110420 14	MW- 203_3/8/200 6	MW- 203_4/2/200 8	MW-203 DUP_4/2/200 8	MW- 203_7/19/20 08	MW- 203_10/8/20 08	MW- 203_12/1/20 09	MW- 203_6/18/20 10	MW- 203DUP_6/1 8/2010	MW- 204_4/3/200 8	MW- 204_7/20/20 08	MW- 204_10/7/20 08	MW-204- DUP_10/7/20 08	MW- 204_12/1/20 09	MW- 204_3/23/20 10	MW- 204_6/16/20 10	MW-204 DUP_6/16/20 10	MW- 204_9/14/20 10	MW- 204_12/15/2 010	MW- 204_061511	MW- 204_120620 11	MW- 204_110520 14
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	S Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 UJ	0.2 UJ	0.32	0.27	19 U	19 U	0.3	0.42 J	0.24	0.22	0.19 U	0.19	0.2 U	0.24	10 U
	ACENAPHTHYLENE	1.4	1	510	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.24	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	ANTHRACENE BENZO(A)ANTHRACENE	0.2	0.2	5100 3.9	ug/L	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.27	19 U	19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	10 U
	BENZO(A)PYRENE	0.2	0.1	0.39	ug/L ug/l	0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U	0.19 U	NA NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.29 0.19 U	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U 0.19 U	10 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA.	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.3	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	BENZO(G,H,I)PERYLENE				ug/L	0.19 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 UJ	0.19 U	10 U
	BENZO(K)FLUORANTHENE				ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	CHRYSENE	0.2	0.2	65	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.29	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	0.19 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 UJ	0.19 U	10 U
	FLUORANTHENE	0.5	1000		ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.53	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	FLUORENE	0.5	1000		ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.37	0.42	19 U	19 U	0.19 U	0.42 J	0.28	0.34	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	INDENO(1,2,3-CD)PYRENE 1-METHYLNAPHTHALENE		0.4		ug/L ug/L	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.78 U	0.19 U 0.38 UJ	NA NA	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.78 U	0.2 U 0.4 UJ	0.19 U 0.38 UJ	0.2 U 7.1	0.19 U	19 U	19 U	0.19 U 1.3	0.2 U 1.6 J	0.19 U 0.67	0.19 U 0.57	0.19 U 0.38 U	0.19 U 0.38 U	0.2 U 0.39 U	0.19 U 0.38 U	10 U
	2-METHYLNAPHTHALENE				ug/L ug/L	0.19 U	0.19 U 0.19 U	0.19 U	0.19 U	0.78 U 0.19 U	0.38 UJ 0.19 UJ	NA NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.78 U 0.19 U	0.4 UJ 0.2 UJ	0.38 UJ 0.19 UJ	0.39	0.19 U	19 U	19 U	0.19 U	0.2 U	0.67 0.19 U	0.57 0.19 U	0.38 U 0.19 U	0.38 U 0.19 U	0.39 U	0.38 U 0.19 U	10 U
	NAPHTHALENE	1	20	20	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA NA	0.34	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 UJ	0.19 LU	0.2 U	0.37	100	76	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	PHENANTHRENE	0.22	0.2	510	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA.	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.77	32	34	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	PYRENE	0.5	1000		ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	0.69	19 U	19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	10 U
	TOTAL PAHs				ug/L	ND	ND	ND	ND	ND	ND	NA	0.34	ND	ND	ND	ND	ND	ND	ND	8.18	5.54	155	130	1.6	2.44	1.19	1.13	ND	0.19	ND	0.24	ND
	BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	32	28	9.5	9.9	16	NA	12	14	NA	1 U	1 U	NA	NA
	ETHYLBENZENE	1	700		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	NA
	p/m-XYLENE		**		ug/L	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	METHYLENE CHLORIDE o-XYLENE				ug/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	10	10	NA.	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA.	1 U	1 U	NA.	1 U	1 U	NA NA	NA NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	NA	2 U	2 U	NA NA	NA
	METHYL TERT BUTYL ETHER				ug/L	10 U	10 U	10 U	NA	NA	10 U	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	32	28	9.5	9.9	16	NA	12	14	NA	ND	ND	NA	NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	NA	0.02 U	0.02 U	NA	NA	NA	NA	NA
	BERYLLIUM		0.004		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BORON		0.005		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CALCIUM METAL		0.005		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA.	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA.	0.01 U	0.01 U	NA.	NA NA	NA NA	NA NA	NA NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA
	POTASSIUM		**		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM	0.96	2	31	mg/L mg/L	NA 0.02 U	NA 0.021	NA 0.036	NA 0.064	NA 0.02 U	NA 0.02 U	NA 0.02 U	0.02 U	NA 0.025	NA 0.033	NA 0.046	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA NA	NA 0.02 U	NA 0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA
—	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA NA	NA NA	0.02 U	NA	NA.	NA	NA NA	NA NA	NA	NA.	0.02 U	0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA
	BERYLLIUM		0.004		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U	0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA
<u> </u>	ZINC ALKALINITY	0.96	2	31	mg/L mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.02 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.02 U NA	0.02 U NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	AMMONIA AS N	15	30	30	mg/L	0.64	0.28 U	0.79	0.51	0.59	0.74	1	1.3	1.2	1.1	0.53	3	0.95	1 J	0.96	520	520	430	440	340	NA	290	300	NA	300	290	370	340
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Journalious	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SULFATE				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	SOLIDS, TOTAL DISSOLVED 1,4-DICHLOROBENZENE				mg/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
L	ı	1	1	·	, ,	<u> </u>	<u> </u>		<u> </u>	l	l	·		1	l	l			l		l	1				l	·		·	1	·		

Notes:

Shaded cell indicates comparison standard used in data evaluation.

Highlighted cell indicates analytical result exceeds comparison criteria.

Bold and Rolls tent indicates analytical result exceeds background value.

In Narias comparison standard base on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above their laboratory minimum detection limit.

J. Indicates constituent was not detected above value shown.

J. Indicates constituent was not detected at an estimated value.

Monitoring will a Mov 3P, PDAMW 4B, PDAMW 4B, PDAMW 4BP, PDAMW 4BP, PDAMW 4BP, PDAMW 3BP, PDAMW 4BP, PDAMW 4

				Locatio	n:									PDMV	/-1T																	PDMW-2T								
				Sample Date	e: 10/30/1997	8/10/1999	11/16/1999	2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001 2/6/2	002 9/12/	2002 2/6/20	103 6/2	5/2003 1/29/2004	7/20/2004	3/8/2006	4/3/2008	7/21/2008	10/7/2008 12/	/5/2009 6/17/2010	6/13/2011	10/29/1997	8/9/1999	11/16/1999 2	//24/2000 5/16/2000	8/22/2000	1/10/2001	7/16/2001 9/10/2	2/6/2003	6/26/2003	1/27/2004	7/21/2004	3/6/2006 4/2	2008 7/19/200	8 10/5/2008	8 12/1/2009	6/18/2010 6/1	5/15/2011 12/21/2011
				Sample Type	e: Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Norm	mal Nor	mal Norn	nal N	ormal Normal	Normal	Normal	Normal	Normal	Normal No	ormal Normal	Normal	Normal	Normal	Normal	Normal Normal	Normal	Normal	Normal Norm	nal Normal	Normal	Normal	Normal	Normal No	rmal Normal	Normal	Normal	Normal N	Normal Normal
					PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PDN	IW- PDI	IW- PDM	w- P	DMW- PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PI	DMW- PDMW-	PDMW-1T-	PDMW-	PDMW-	PDMW-	PDMW- PDMW-	PDMW-	PDMW-	PDMW- PDM	W- PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PD	MW- PDMW-	PDMW-	PDMW-	PDMW- PD	DMW-2T-
				Sample II	D: 1T_10/30/19 97	1T_8/10/199 9	1T_11/16/19 99	1T_2/23/200 0	1T_5/16/200 0	1T_8/22/200 0	1T_1/10/200 1	1T_7/16/200 1 1T_2/6	/2002 1T_9/	1T_2/6/	2002	3 1T_1/29/200 3 4	1T_7/20/200 4	1T_3/8/2006	1T_4/3/2008	1T_7/21/200 8	1T_10/7/200 1T_1 8	12/5/200 1T_6/17/20 9 0	061311	2T_10/29/19 97	2T_8/9/1999	2T_11/16/19 2T 99	7_2/24/200 2T_5/16/20 0 0	0 2T_8/22/200 0	2T_1/10/200 1	2T_7/16/200 2T_9/1 1 2	0/200 OT 0/0/00	2T_6/26/200	2T_1/27/200	0 2T_7/21/200 4	2T_3/6/2006 2T_4	2/2008 2T_7/19/2 8	00 2T_10/5/20 8	00 2T_12/1/200 2 9	2T_6/18/201 0	061511 2T_1221201
Method Gro	p Analyte	Background	Type 3 RRS Type 4	RRS Unit	s Result	Result	Result	Result	Result	Result	Result	Result Res	ult Res	ult Resi	ult B	esult Result	Result	Result	Result	Result	Result R	lesult Result	Result	Result	Result	Result	Result Result	Result	Result	Result Res	ult Result	Result	Result	Result	Result Re	sult Result	Result	Result	Result R	Result Result
	ACENAPHTHENE	1	2000	- ua/l	111	111	1.0	1 U	111	111	111	111 1	U 0.2			1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9 U 0.19 U	NA.	111	111	111	111 111	10	10	1 U 0.2		0.2 U	0.2 U	0.2 U		19 U 0.19 U	0.19 U	0.1911		NA NA
	ACENAPHTHYLENE	1.4	1 51	0 ug/L	. 10	10	1 U	1 U	1 U	1 U	1 U	10 1		U 0.2	_	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9 U 0.19 U	NA.	1 U	1 U	10	10 10	10	10	1 U 0.2		0.2 U	0.2 U	0.2 U		19 U 0.19 U		0.19 U		NA NA
	ANTHRACENE	0.2	0.2 51	00 ug/L	. 0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	BENZO(A)ANTHRACENE	0.2	0.1 3.	9 ug/L	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	BENZO(A)PYRENE	0.2	0.2 0.0	39 ug/L	. 0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	BENZO(B)FLUORANTHENE	0.2	0.2 0.6	35 ug/L	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	BENZO(G,H,I)PERYLENE			- ug/L	. 0.5 U	NA	0.5 U	NA	NA	NA	NA	NA N	A 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.5 U	NA	0.5 U	NA NA	NA	NA	NA 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	BENZO(K)FLUORANTHENE			- ug/L	. 0.5 U	NA	0.2 U	NA	NA	NA	NA	NA N	A 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.5 U	NA	0.2 U	NA NA	NA	NA	NA 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	CHRYSENE	0.2	0.2 6	5 ug/L	. 0.44	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2	U 0.2	J	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	- ug/L	. 10	NA	0.2 U	NA	NA	NA	NA	NA N	A 0.2	U 0.2	_	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	1 U	NA	0.2 U	NA NA	NA	NA	NA 0.2	_	0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	FLUORANTHENE	0.5	1000 -	- ug/L	. 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0.5	U 0.2	U 0.2	J	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U 1	1.9 U 0.19 U	NA	0.5 U	0.5 U	0.5 U	0.5 U 0.5 U	0.5 U	0.5 U	0.5 U 0.2		0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U		NA NA
	FLUORENE	0.5	1000 -	- ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0.5			_	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9 U 0.19 U	NA	0.5 U	0.5 U		0.5 U 0.5 U	0.5 U	0.5 U	0.5 U 0.2		0.2 U	0.2 U	0.2 U	 	19 U 0.19 U	0.19 U	0.19 U		NA NA
	INDENO(1,2,3-CD)PYRENE		0.4 -	- ug/L	. 0.5 U	NA	0.2 U	NA	NA	NA	NA	NA N				1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9 U 0.19 U	NA	0.5 U	NA	0.2 U	NA NA	NA	NA	NA 0.2		0.2 U	0.2 U	0.2 U		19 U 0.19 U	0.19 U	0.19 U		NA NA
	1-METHYLNAPHTHALENE			- ug/L	. NA	NA NA	10	NA	NA NA	NA 	NA NA	NA N		U 0.2		1.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U		7.5 U 0.38 U	NA NA	NA NA	NA NA	10	NA NA	NA NA	NA NA	NA 0.2		0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U 0.19 U	0.76 U		NA NA
	2-METHYLNAPHTHALENE NAPHTHALENE	,	20 2	- ug/L	. NA	INA 111	111	NA 1 U	NA 111	NA 111	NA 1.11	THA N		U 0.2	_	1.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U		1.9 U 0.19 U	NA NA	ruA 111	NA 1 U	111	NA NA	NA 1 U	NA 1 U	NA 0.2		0.2 U 0.2 U	0.2 U	0.2 U	 	19 U 0.19 U	0.19 U	0.19 U		NA NA
	PHENANTHRENE	0.22	0.2 51	0 ug/L	. 10	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2				1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9U 0.19U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2		0.2 U	0.2 U	0.2 U		19 U 0.19 U	0.19 U	0.19 U		NA NA
	PYRENE	0.5	1000 -	- ua/L	. 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0.5		_	_	1.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		1.9 U 0.19 U	NA.	0.5 U	0.5 U		0.5 U 0.5 U	0.5 U	0.5 U	0.5 U 0.2		0.2 U	0.2 U	0.2 U	0.19 U 0.	19 U 0.19 U	0.19 U	0.19 U	0.19 U	NA NA
	TOTAL PAHs			- ug/L	1.59	ND	ND	ND	ND	ND	ND	ND N		D ND	_	ND ND	ND	ND	ND	ND		ND ND	NA	ND	ND	ND	ND ND	ND	ND	ND NI		ND	ND	ND	ND I	ND ND	ND	ND	ND	NA NA
	BENZENE	1	5 31	.2 ug/L	. 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	U 1	U 1 L		10 10	1 U	1 U	1 U	1 U	1 U	10 10	NA	1 U	1 U	1 U	10 10	1 U	1 U	1 U 1	J 1 U	1 U	1 U	1 U	10 1	U 1U	1 U	1 U	1 U	NA NA
	ETHYLBENZENE	1	700 -	- ug/L	. 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	U 1	U 1 L		1 U 1 U	1 U	1 U	1 U	1 U	1 U	10 10	NA	1 U	1 U	1 U	10 10	1 U	1 U	1 U 1	J 1U	1 U	1 U	1 U	1 U	U 1 U	1 U	1 U	1 U	NA NA
	p/m-XYLENE			- ug/L	. NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U N	A N	A NA		NA NA	NA	1 U	NA	NA	NA	NA NA	NA	NA	1 U	1 U	10 10	1 U	1 U	1 U N	. NA	NA	NA	NA	1 U I	NA NA	NA	NA	NA	NA NA
	METHYLENE CHLORIDE			- ug/L	. NA	5 U	NA	NA	NA	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	5 U	NA	NA NA	NA	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA	NA	NA NA
VOCs	o-XYLENE			- ug/L	. NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U N	A N	A NA		NA NA	NA.	10 U	NA	NA	NA	NA NA	NA	NA	1 U	1 U	10 10	1 U	1 U	1 U N	. NA	NA	NA	NA	10 U	NA NA	NA	NA	NA	NA NA
	TOLUENE	1		00 ug/L	. 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	U 1	U 1 L		1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	NA	1 U	1 U	1 U	1U 1U	1 U	1 U	1 U 1	J 1 U	1 U	1 U	1 U	1 U	U 1 U	1 U	1 U	1 U	NA NA
	XYLENES (TOTAL)	2	10000 -	- ug/L	. 2U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 2			_	2 U 2 U	2 U	2 U	2 U	2 U		2 U 2 U	NA	2 U	1 U	1 U	10 10	1 U	10	1 U 2	_	2 U	2 U	2 U		! U 2 U	2 U	2 U		NA NA
	METHYL TERT BUTYL ETHER			- ug/L	. NA	NA ND	NA	NA ND	NA	NA	NA	NA N		A NA	_	NA NA	NA ND	10 U ND	10 U ND	10 U		NA 10 U	NA NA	NA ND	NA ND	NA ND	NA NA	NA ND	NA ND	NA N		NA	NA ND	NA	10 U 1	0 U 10 U	NA	NA		NA NA
	TOTAL BTEX ARSENIC	0.018	0.018 0.0	- ug/L	. ND . 0.01 U	ND 0.012	0.01 U	0.01 U	0.01 U	0.01 U	ND 0.011	0.01 U 0.0		11 0.01	_	.01 U 0.01 U	0.015	0.01 U	0.01 U	0.01 U		ND ND 0.02 U 0.02 U	NA NA	0.0193	0.023		ND ND 0.01 U 0.01 U	0.011	0.01 U	0.01 U 0.01		0.01 U	0.01 U	0.01 U	0.01 U 0.	ND ND	0.01 U	0.02 U		NA 0.018 U
	BERYLLIUM	0.010	0.004 -	- mg/L	0.005 U	NA.	NA.	NA.	NA.	NA.	NA.	NA N	A N	A NA	_	NA NA	NA.	NA NA	NA NA	NA NA	NA V	NA NA	NA.	0.005 U	NA	NA NA	NA NA	NA.	NA NA	NA N		NA.	NA.	NA NA	NA I	NA NA	NA.	NA.	NA NA	NA NA
	BORON			- mg/L	. NA	NA.	NA.	NA.	NA NA	NA .	NA NA	NA N	A N		_	NA NA	NA.	NA NA	NA NA	NA NA		NA NA	NA.	NA	NA	NA NA	NA NA	NA.	NA NA	NA N		NA	NA NA	NA NA	NA I	NA NA	NA.	NA NA	NA	NA NA
	CADMIUM		0.005 -	- mg/L	0.005 U	NA NA	NA	NA	NA.	NA	NA	NA N	A N	A NA	_	NA NA	NA.	NA	NA	NA		NA NA	NA	0.01 U	NA	NA NA	NA NA	NA.	NA NA	NA N		NA	NA	NA NA	NA I	NA NA	NA.	NA NA	NA NA	NA NA
	CALCIUM METAL			- mg/L	. NA	NA	NA	NA	NA	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA NA	NA	NA NA
	CHROMIUM	0.013	0.1	- mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01	I U 0.0	1 U 0.01	U C	.01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0	0.01 U 0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U 0.01	U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.	0.01 U	0.01 U	0.01 U	0.01 U	NA NA
Metals, Total	LEAD	0.007	0.015 0.0	15 mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U 0.00	5 U 0.00	6 U 0.005	U 0.	0.005 U 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U 0	0.01 U 0.01 U	NA	0.005 U	0.005 U	0.005 U	0.005 U 0.005 U	0.005 U	0.005 U	0.005 U 0.00	5 U 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U 0.0	05 U 0.005 U	0.005 U	0.01 U	0.01 U	NA NA
	MAGNESIUM			- mg/L	_ NA	NA	NA	NA	NA	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA	NA	NA NA
	MERCURY		0.002 -	- mg/L	0.0002 U	NA.	NA	NA	NA	NA	NA	NA N	A N	A NA		NA NA	NA.	NA	NA	NA	NA	NA NA	NA	0.0002 U	NA	NA	NA NA	NA	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA		NA NA
	NICKEL	0.13	0.1 2	t mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U 0.04			_	.04 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U		0.04 U 0.04 U	NA	0.04 U	0.04 U		0.04 U 0.04 U	0.04 U	0.04 U	0.04 U 0.04		0.04 U	0.04 U	0.04 U		0.04 U	0.04 U	0.04 U		NA NA
	POTASSIUM			- mg/L	- NA	NA	NA	NA	NA	NA	NA	NA N			_	NA NA	NA NA	NA NA	NA	NA		NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N		NA	NA	NA	NA I	NA NA	NA	NA		NA NA
	SUDIUM	0.00		mg/L	NA NA	NA 0.02 U	NA 0.062	NA O O O O O	NA 0.027	NA O CO LL	NA 0.02 U	NA N.	A N		_	NA NA .02 U 0.02 U	NA 0.033	NA 0.03 II	NA 0.02 U	NA 0.02 U		NA NA	NA NA	NA 0.02 U	NA 0.02 U	NA 0.02.U	NA NA 0.02 U 0.02 U	NA O O O O O	NA 0.022	NA N		NA 0.02 U	NA	NA 0.02.U	NA I	NA NA	NA 0.02 U	NA 0.02 U		NA NA
-	ARSENIC	0.96	0.018 0.0	18 mg/L	0.02 U	0.02 U NA	0.063 0.01 U	0.02 U 0.01 U	U.U2/ NA	0.02 U NA	0.02 U 0.01 U	0.02 U 0.00	2 U 0.0			.02 U 0.02 U NA NA	0.023 NA	0.02 U NA	0.02 U NA	0.02 U NA		0.02 U 0.02 U	NA NA	0.02 U NA	0.02 U NA		0.02 U 0.02 U 0.01 U NA	0.02 U 0.01 U	0.023 NA	0.02 U 0.02 NA N	_	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U 0.	12 U 0.02 U	0.02 U NA	U.U2 U NA		NA NA
	BERYLLIUM		0.004 -	- mg/L	. NA	NA NA	NA NA	NA.	NA NA	NA.	NA .	NA N	A N	A NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA	NA	NA NA	NA.	NA NA	NA N	. NA	NA NA	NA NA	NA NA	NA I	va NA	NA.	NA NA	NA NA	NA NA
	CADMIUM		0.005 -	- mg/L	. NA	NA.	NA	NA.	NA NA	NA	NA	NA N	A N		_	NA NA	NA NA	NA NA	NA NA	NA		NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA N	. NA	NA NA	NA NA	NA NA	NA I	NA NA	NA.	NA.	NA NA	NA NA
	CHROMIUM	0.013	0.1 -	- mg/L	. NA	NA	0.01 U	0.01 U	NA	NA	NA	NA N		A NA		NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA	0.01 U	0.01 U NA	NA.	NA	NA N		NA	NA	NA	NA I	NA NA	NA	NA		NA NA
Metals, Dissolve	LEAD	0.007	0.015 0.0	15 mg/L	. NA	NA	0.005 U	0.005 U	NA	NA	NA	NA N	A N	A NA	_	NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA		0.005 U NA	NA	NA	NA N		NA	NA	NA	NA I	NA NA	NA	NA.	NA	NA NA
	MERCURY		0.002 -	- mg/L	_ NA	NA	NA	NA	NA	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA	NA	NA NA
	NICKEL	0.13	0.1 2	t mg/L	. NA	NA	0.04 U	0.04 U	NA	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	0.04 U	0.04 U NA	NA.	NA	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA.	NA	NA NA
	ZINC	0.96	2 3	1 mg/L	. NA	NA	0.02 U	0.02 U	0.02 U	NA	NA	NA N	A N	A NA		NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	0.02 U	0.02 U NA	NA	0.02 U	NA N	. NA	NA	NA	NA	NA I	NA NA	NA	NA	NA	NA NA
	ALKALINITY			- mg/L	_	NA.	NA	NA	NA	NA	NA	NA N		A NA		NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA	_	NA NA	NA	NA	NA N		NA	NA	NA		NA NA	NA	NA		NA NA
	ALKALINITY, TOTAL (AS CACO3)			- mg/L	_	NA	NA	NA	NA	NA	NA	NA N		A NA		NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	_	NA	NA	NA		NA NA	NA.	NA		NA NA
	AMMONIA AS N	15	30 3			5	8.2	13	17	22	16	24 1		9 18		12 1.9	0.038	25	17	14		9.6 12	34	29	19		26 24	22	25	18 37			0.59	27		2.8 0.85		7.7		120 NA
	BICARBONATE			- mg/L	_	NA	NA	NA	NA	NA	NA	NA N		A NA	_	NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA	_	NA NA	NA	NA	NA N		NA	NA	NA		NA NA		NA		NA NA
Miscellaneous	CARBONATE			- mg/L umhos	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA N		A NA	_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA N		NA NA	NA NA	NA NA	 	NA NA	_	NA NA		NA NA
	CONDUCTIVITY NITRATE (AS N)		10 -	- umho: - cm		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		A NA	_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		NA NA	NA NA	NA NA		NA NA	NA NA	NA NA		NA NA
	NITRATE (AS N) NITRITE (AS N)		- 10	- mg/L	-	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		A NA	_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		NA NA	NA NA	NA NA	 	NA NA	NA NA	NA NA		NA NA
	SULFATE			- mg/L		NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA N		A NA		NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA N		NA NA	NA NA	NA NA		VA NA	_	NA NA		NA NA
	SOLIDS, TOTAL DISSOLVED			- mg/L		NA.	NA	NA.	NA NA	NA	NA	NA N		A NA		NA NA	NA NA	NA NA	NA NA	NA		NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA N		NA NA	NA NA	NA NA		NA NA		NA.		NA NA
SVOCs	1,4-DICHLOROBENZENE			- ug/L		NA NA	NA	NA	NA	NA	NA	NA N		A NA	_	NA NA	NA	NA	NA	NA		NA NA	NA	NA	NA		NA NA	NA	NA	NA N		NA	NA	NA		NA NA		NA.		NA NA
Notes:																																								

Notes:

Shaded cell indicates comparison standard used in data evaluation.

In splitighted cell indicates analytical result exceeds comparison criteria.

Bodd and Rolls feet indicates analytical result exceeds background value.

In Nivra to comparison so sandard back on the Maximum Containance Level (MCL) established by the USEPA National Primary (
NO. No constituents detected above the laboratory informal detection lines.

I indicates constituent was not detected above value shown.

I indicates constituent was not detected at an estimated value.

Uniformation constituent was not detected at an estimated value.

Uniformation constituent was not detected at an estimated value.

Monitoring wells, MMV-38, POAMW-48P, POAMW-18P, POAMW-18TP, POAMW-23P, POAMW-23P, POAMW-33P, PO

				L	Location:	:												PDM	W-3T												
				Samp	ple Date:	10/29/1997	8/11/1999	11/16/1999	2/23/2000	2/24/2000	5/16/2000	8/21/2000	1/9/2001	7/11/2001	2/4/2002	9/10/2002	2/6/2003	6/26/2003	1/27/2004	7/21/2004	3/6/3	2006	4/2/2008	7/19/2008	10/4/2008	12/1/2009	6/16/2010	12/15/2010	6/15	2011	12/8/2011
				Samp	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Nor	mal	Normal	Normal	Normal	Normal	Normal	Normal	No	mal	Normal
				Sa	ample ID:	PDMW- 3T_10/29/19 97	PDMW- 3T_8/11/199 9	PDMW- 3T_11/16/19 99	PDMW- 3T_2/23/200 0	PDMW- 3T_2/24/200 0	PDMW- 3T_5/16/200 0	PDMW- 3T_8/21/200 0	PDMW- 3T_1/9/2001	PDMW- 3T_7/11/200 1	PDMW- 3T_2/4/2002	PDMW- 3T_9/10/200 2	PDMW- 3T_2/6/2003	PDMW- 3T_6/26/200 3	PDMW- 3T_1/27/200 4	PDMW- 3T_7/21/200 4	MW-3T Unfiltered _3/6/2006	PDMW-3T Filtered_3/6 /2006	PDMW- 3T_4/2/2008	PDMW- 3T_7/19/200 8	PDMW- 3T_10/4/200 8	PDMW- 3T_12/1/200 9	PDMW- 3T_6/16/201 0	PDMW- 3T_12/15/20 10	PDMW- 3T_061511	PDMW- 3T_061511F F	PDMW- 3T_1208201 1
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	ACENAPHTHYLENE ANTHRACENE	1.4	0.2	510 5100	ug/L ug/L	1 U	1 U	1 U 0.2 U	1 U	NA NA	1 U	1 U	1 U 0.2 U	1 U	1 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	NA NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA NA	NA NA	NA NA	NA NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	65	ug/L ug/L	0.5 U 0.2 U	NA 0.2 U	0.2 U 0.2 U	NA 0.2 U	NA NA	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA NA	0.2 U	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA NA	NA NA	NA NA	NA
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE				ug/L ug/L	NA NA	NA NA	1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.8 U 0.2 U	0.39 U 0.19 U	NA NA	NA NA	NA NA	NA NA
	NAPHTHALENE	1	20	20	ug/L ug/L	NA 1 U	1 U	10	1 U	NA NA	1 U	NA 1 U	NA 1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA NA	NA NA	NA NA	NA NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.2 U	0.19 U	NA	NA	NA	NA
	TOTAL PAHs				ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
	BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA
	ETHYLBENZENE p/m-XYLENE	1	700		ug/L ug/L	1 U NA	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	NA NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	NA NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE				ug/L	NA NA	5 U	NA.	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	3.3	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	10 U	NA	NA	10 U	NA	NA	NA	NA
	TOTAL BTEX ARSENIC	0.018	0.018	0.018	ug/L mg/L	3.3 0.01 U	ND 0.01 U	ND 0.01 U	ND NA	NA 0.017	ND 0.049	ND 0.058	ND 0.01 U	ND 0.043	ND 0.02	ND 0.012	ND 0.031	ND 0.029	ND 0.01 U	ND 0.034	ND 0.02	NA 0.021	ND 0.035	ND 0.036	ND 0.046	ND 0.02 U	ND 0.02 U	NA 0.018	0.035	NA NA	NA 0.018 U
	BERYLLIUM	0.018	0.018	0.018	mg/L	0.01 U	NA	NA NA	NA NA	NA	NA	NA	NA NA	0.043 NA	NA	0.012 NA	NA	NA	NA.	0.034 NA	NA	NA	NA	NA	0.046 NA	0.02 U	0.02 U	NA NA	NA	NA NA	0.018 U
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.03	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA
Metals, Total	LEAD MAGNESIUM	0.007	0.015	0.015	mg/L mg/L	0.0082 NA	0.016 NA	0.02 NA	NA NA	0.036 NA	0.025 NA	0.005 U NA	0.014 NA	0.0092 NA	0.005 U NA	0.005 U NA	0.01 NA	0.015 NA	0.0057 NA	0.02 NA	0.0094 NA	0.005 U NA	0.028 NA	0.17 NA	0.013 NA	0.01 U NA	0.01 U NA	0.01 NA	0.014 NA	NA NA	0.01 U NA
	MERCURY		0.002		mg/L	0.0002 U	NA NA	NA NA	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC ARSENIC	0.96	0.018	0.018	mg/L mg/L	0.02 U 0.01 U	0.1 NA	0.056 0.01 U	NA NA	0.074 0.01 U	0.046	0.02 U 0.01 U	0.062 NA	0.037 0.01 U	0.42 0.01 U	0.12 NA	0.042 NA	0.02 U NA	0.089 NA	0.029 NA	0.037 NA	0.02	0.031	0.18 0.01 U	0.026 NA	0.02 U NA	0.059 0.02 U	NA NA	NA NA	NA 0.032	NA 0.018 U
	BERYLLIUM	0.018	0.018	0.018	mg/L	0.01 U	NA NA	0.01 U	NA NA	0.01 U	0.013 NA	0.01 U NA	NA NA	0.01 U	0.01 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.021 NA	NA	0.01 U NA	NA NA	NA NA	0.02 U NA	NA NA	NA NA	0.032 NA	0.018 U NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA NA	NA	NA	NA	NA NA	NA NA	NA	NA	NA .	NA.	NA	NA.	NA	NA	NA	NA	NA NA	NA.	NA NA	NA .	NA NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	0.01 U	NA	0.01 U	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	NA	NA	0.01 U	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015	mg/L	0.005 U	NA	0.016	NA	0.016	0.0069	NA	0.0074	0.005 U	NA	NA	NA	NA	NA	NA	NA	0.005 U	0.005 U	0.005 U	NA	NA	0.01 U	NA	NA	0.01 U	0.0015 U
	MERCURY		0.002		mg/L	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL ZINC	0.13	0.1	2	mg/L mg/L	0.04 U 0.02 U	NA NA	0.04 U 0.042	NA NA	0.04 U 0.049	NA 0.03	NA NA	NA 0.047	NA 0.075	NA 0.44	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U 0.02	0.04 U 0.02 U	0.04 U 0.039	NA NA	NA NA	0.04 U 0.02 U	NA NA	NA NA	NA NA	NA NA
—	ALKALINITY	0.96			mg/L	NA	NA NA	0.042 NA	NA NA	0.049 NA	NA NA	NA NA	0.047 NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	0.02 U	0.039 NA	NA NA	NA NA	0.02 U	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	1.4	6600	0.84	0.81	NA	1.8	2.9	0.54	3.2	2	1.2	0.75	1.6	0.31	4.3	0.67	NA	2.5	0.72	4.3	0.62	2.5	NA	2.7	NA	1.3
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L umhos/	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY NITRATE (AS N)		10		cm	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NITRATE (AS N) NITRITE (AS N)		10		mg/L mg/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SULFATE				mg/L	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SOLIDS, TOTAL DISSOLVED				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Notes:																															

Note:

Shaded cell indicates comparison standard used in data evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Ralk test indicates analytical result exceeds background value.

In Nitrate comparison standard based on the Maximum Containant Level (MCL) stabilished by the USEPA National Primary (

100 - No constituents detected above the laboratory infinum detection limit.

1. Indicates constituent was not detected above value show.

1. Indicates constituent was not detected at an estimated value.

1. Indicates constituent was not extend at an estimated value.

1. Indicates constituent was not extend at an estimated value.

1. Indicates constituent was not extend at an estimated value.

1. Indicates constituent was not extend at an estimated value show.

1. Indicates constituent was not detected at an estimated value show.

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				L	ocation:												PDN	IW-4T											
				Samp	le Date:	10/23/1997	8/9/1999	11/17/1999	2/24/2000	5/16/2000	8/22/2000	1/10/2001	7/12/2001	2/5/2002	9/11/2002	2/7/2003	6/25/2003	1/29/2004	7/23/2004	3/6/2006	4/3/2008	7/20/2008	10/6/2008	12/4	/2009	6/19/2010	12/15/2010	6/16/2011	12/7/2011
				Samp	le Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal
				Sar	mple ID:	PDMW- 4T_10/23/19 97	PDMW- 4T_8/9/1999	PDMW- 4T_11/17/19 99	PDMW- 4T_2/24/200 0	PDMW- 4T_5/16/200 0	PDMW- 4T_8/22/200 0	PDMW- 4T_1/10/200 1	PDMW- 4T_7/12/200 1	PDMW- 4T_2/5/2002	PDMW- 4T_9/11/200 2	PDMW- 4T_2/7/2003	PDMW- 4T_6/25/200 3	PDMW- 4T_1/29/200 4	PDMW- 4T_7/23/200 4	PDMW- 4T_3/6/2006	PDMW- 4T_4/3/2008	PDMW- 4T_7/20/200 8	PDMW- 4T_10/6/200 8	PDMW- 4T_12/4/200 9	PDMW-4T- DUP_12/4/20 09	PDMW- 4T_6/19/201 0	PDMW- 4T_12/15/20 10	PDMW- 4T_061611	PDMW- 4T_1207201 1
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA
	ACENAPHTHYLENE ANTHRACENE	1.4 0.2	0.2	510 5100	ug/L ug/L	1 U	1 U 0.2 U	1 U	1 U	1 U 0.2 U	1 U	1 U	1 U	NA NA	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.97 U 0.97 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 LU 0.19 LU	NA NA	NA NA	NA NA
	BENZO(A)ANTHRACENE	0.2	0.2	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 tJJ	NA NA	NA NA	NA NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	65	ug/L ug/L	0.5 U 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.97 U 0.97 U	0.19 U 0.19 U	0.19 UJ 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 W 0.19 W	NA NA	NA NA	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE	0.2	0.3		ug/L	1 U	NA	NA.	NA	NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 W	NA NA	NA NA	NA NA
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	NA	NA
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE				ug/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.97 U 0.97 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.76 U 0.19 U	0.76 U 0.19 U	0.38 LU 0.19 LU	NA NA	NA NA	NA NA
	NAPHTHALENE	1	20	20	ug/L	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA NA	NA NA	NA NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.97 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	TOTAL PAHS				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	BENZENE ETHYLBENZENE	1	700	31.2	ug/L ug/L	1 U	1 U	10	1 U	1 U	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA NA	NA NA	NA NA
	p/m-XYLENE				ug/L	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA	NA
	XYLENES (TOTAL) METHYL TERT BUTYL ETHER	2	10000		ug/L ug/L	2 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	NA NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U 10 U	2 U 10 U	2 U 10 U	2 U NA	2 U NA	2 U NA	2 UJ 10 UJ	NA NA	NA NA	NA NA
	TOTAL BTEX				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.01 U	0.017	0.01 U	0.01 U	0.01 U	0.023	0.01 U	0.018	NA	0.01 U	0.01 U	0.014	0.011	0.02	0.022	0.036	0.02	0.033	0.02 U	0.02 U	0.039	0.019	0.027	0.018 U
	BERYLLIUM		0.004		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BORON CADMIUM		0.005		mg/L mg/L	NA 0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CALCIUM METAL		0.005		mg/L	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	NA	NA	NA
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY NICKEL	0.13	0.002	2	mg/L mg/L	0.0002 U 0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	NA 0.04 U	NA 0.04 U	0.04 U	NA NA	0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA 0.04 U	0.04 U	NA NA	NA NA	NA NA
	POTASSIUM				mg/L	NA NA	NA NA	NA.	NA	NA.	NA	NA NA	NA	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA	NA NA	NA.	NA	NA.	NA NA	NA NA	NA NA
	SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC	0.96	2	31	mg/L	0.102	0.14	0.056	0.17	0.11	0.02 U	0.26	0.19	NA	0.24	0.12	0.039	0.096	0.051	0.08	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA
	ARSENIC BERYLLIUM	0.018	0.018	0.018	mg/L mg/L	NA NA	NA NA	0.01 U NA	0.01 U NA	NA NA	0.01 U NA	NA NA	0.01 U NA	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM		0.004		mg/L mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Motolo Pro-	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL ZINC	0.13	0.1	2 31	mg/L mg/L	NA NA	NA NA	0.04 U 0.057	0.04 U 0.16	NA 0.087	NA NA	NA 0.24	NA 0.14	NA 0.11	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY	0.50			mg/L	NA NA	NA NA	NA.	NA.	NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	90	410	220	200	300	1000	100	370	NA	280	46	280	440	530	410	810	200	550	140	140	330 J	220	150	120
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE CONDUCTIVITY				mg/L umhos/	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NITRATE (AS N)		10		cm mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SULFATE				mg/L	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	SOLIDS, TOTAL DISSOLVED				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	1,4-DICHLOROBENZENE			**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

| Shaded cell indicates comparison standard used in data evaluation.
| Highlighted cell indicates analytical result receeds comparison criteria.
| Boble and Relix feet indicates analytical result exceeds background value.
| Sharts comparison standard backer on the Maximum Containment set (MCL) established by the USEPA National Primary C
NO - No constituent detected above the laboratory indirum detection limit.
| Indicates constituent was not detected above whise Johnson.
| In Indicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
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| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value in the properties of the propert of the properties of the properties of the properties of the pr

Part					L	Location:													PDMW-5T												
Part							10/30/1997	8/9/1999	11/17/1999	2/24/2000	5/16/2000	8/22/2000	1/10/2001	7/12/2001	9/12/	2002	2/6/2003	6/27/2003	1/29/2004	7/23/2004	3/6/2006	4/4/2008	7/21/2008	10/6/2008	12/5/2009	6/17/2010	12/1	6/2010	6/16/	2011	12/7/2011
Professor Prof					Samp	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Nor	mal	Normal
					Se	ample ID:	5T_10/30/19		5T_11/17/19	5T_2/24/200	5T_5/16/200	5T_8/22/200	PDMW- 5T_1/10/200 1	PDMW- 5T_7/12/200 1	5T_9/12/200	(DUP)_9/12/		5T_6/27/200	5T_1/29/200	PDMW- 5T_7/23/200 4					5T_12/5/200	5T_6/17/201	5T_12/16/20	5TDUP3_12/			
Profession Pro	Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
				2000		ug/L													!	!		!									
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						+		NA		NA	NA	NA	NA	NA			0.2 U	0.2 U	-		0.19 U	0.19 U			0.19 U	0.19 U	NA	NA	NA	NA	
		CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
	PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
		FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
Part		FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
				0.4		+													-	!								1			1
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Minical Region						÷													!	!	-	!						1			1
		-			510	_													-			-									-
						+													-			-									
			1	5	31.2	_													!	!	-	!						1			
		ETHYLBENZENE	1	700		_											1 U		-			-			1 U					NA.	
		p/m-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mathematical Region		METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA.	NA
Part	VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Part		XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	NA	NA
Part						ug/L			NA	NA			NA	NA	NA		NA	NA		-	10 U	10 U	10 U		NA	10 U		NA	NA	NA	
Part						ug/L																!						1			
			0.018		0.018	+-																									1
Marchane				0.004		+													-			-									-
Maria Mari				0.005		+													-			-									
				0.005		+													!	!	-	-						1			
Marche M			0.013	0.1		+											-		-			-									
House Heading And And Antique Heading Antique Heading And Antique Heading And Antique Heading Antique	Metals, Total	LEAD		0.015	0.015	+			0.005 U				0.005 U				0.005 U		-		0.005 U	0.005 U			0.01 U				NA.	NA.	
March Marc		MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA
- Marie Probabilist Probabilis		MERCURY		0.002		mg/L	0.0002 U	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA
Part		NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA	NA
28 C		POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
APPENISH RESISTED OF THE RESIS		SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fertilish Fert						<u> </u>																!									1
ACMINISHMENT OF THE CONTINUENCE		-	0.018			+														-		!									
HERMARIAN D. CO.TS						+														-											
## ACALINITY ##						+														!											
MERCURY	Metals, Dissolved					+													-			-									
Microbial District No. 13 0.1 2 mg. NA NA 0.04 U 0.04 U NA						_													-			-									
2NC 0.96 2 31 mg/L NA NA 0.02 0.02 0.02 0.02 NA			0.13																-			-									
ALFALINITY		ZINC																	1	1		1						1			_
AMMONA AS N 15 30 30 mg L 2.6 6.1 14 4 5 6.7 4 6.6 4.5 4.6 3.8 4.6 0.03 U 5.4 1.3 1.4 1.2 1.3 1 3.1 NA		ALKALINITY				_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BICARBONATE mgl NA		ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA
ARBONATE mgl NA		AMMONIA AS N	15	30	30	mg/L	2.6	6.1	14	4	5	6.7	4	6.6	4.5	4.6	3.8	4.6	0.03 U	5.4	1.3	1.4	1.2	1.3	1	3.1	NA	NA	1.1	NA	NA
CARDUCTIVITY .		BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CORDICITIVITY Unificidity NA	Miscellaneous	CARBONATE					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE (AS N)		CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE mg/L NA		NITRATE (AS N)		10		mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SCLIDS, TOTAL DISSOLVED mgL NA						_																									1
					-	+-														-											1
	evoc.					_															1							1			1
	SVUCS	1,4-DICHLOHOBENZENE			1	ug/L	NA.	NA	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.

Note:

| Shaded cell indicates comparison standard used in data evaluation.
| Indignighted cell indicates analytical result exceeds comparison criteria.
| Bold and Risk feet indicates analytical result exceeds background value.
| Bold and Risk feet indicates analytical result exceeds background value.
| No -Re constituents os standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C
| NO -Re constituents detected above the laboratory minimum detection limit.
| J. Indicates constituent was not detected above value shown.
| J. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| Monitoring wells MM-38, PDMM-88, PDMM-38, PDMM-318, PDMM-3

				L	ocation:												PDM	IW-6P											
				Samp	ple Date:	10/30/1997	8/11/1999	11/16/1999	2/23/2000	5/15/2000	8/21/2000	1/9/2001	7/12/2001	2/5/2002	9/12/2002	2/7/2003	6/25/2003	1/29/2004	7/23	/2004	3/6/2006	4/3/2008	7/20/2008	10/6/2008	12/3/2009	6/17/2010	12/15/2010	6/16/2011	12/7/2011
				Samp	ole Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
				Sa	imple ID:	PDMW- 6P_10/30/19	PDMW- 6P 8/11/199	PDMW- 6P_11/16/19	PDMW- 6P_2/23/200	PDMW- 6P_5/15/200	PDMW- 6P_8/21/200	PDMW-	PDMW- 6P_7/12/200	PDMW-	PDMW- 6P_9/12/200	PDMW-	PDMW- 6P_6/25/200	PDMW- 6P_1/29/200	PDMW- 6P_7/23/200	PDMW-6P (DUP)_7/23/	PDMW-	PDMW-	PDMW- 6P 7/20/200	PDMW- 6P 10/6/200	PDMW- 6P_12/3/200	PDMW- 6P 6/17/201	PDMW- 6P_12/15/20	PDMW-	PDMW- 6P_1207201
						97	9	99	- 0	- 0	- 0	6P_1/9/2001	1	6P_2/5/2002	2	6P_2/7/2003	3	- 4	- 4	2004	6P_3/6/2006	6P_4/3/2008	- 8	- 8	9	- 0	10	6P_061611	1
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE ACENAPHTHYLENE	1.4	2000	510	ug/L ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.76 0.2 U	NA NA	NA NA	NA NA
	ANTHRACENE	0.2	0.2	5100	ug/L	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA NA	NA NA	NA NA					
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE				ug/L ug/L	0.5 U 0.5 U	NA NA	0.5 U 0.2 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 UJ 0.2 U	NA NA	NA NA	NA NA
	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA NA	NA NA	NA NA					
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 UJ	NA	NA	NA
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.47	NA	NA	NA					
	NDENO(1,2,3-CD)PYRENE 1-METHYLNAPHTHALENE		0.4		ug/L	0.5 U NA	NA NA	0.2 U 1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.76 U	0.2 UJ 0.4 U	NA NA	NA NA	NA NA
	2-METHYLNAPHTHALENE				ug/L ug/L	NA NA	NA NA	10	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.76 U	0.4 U	NA NA	NA NA	NA NA
	NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA NA	NA NA	NA NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	NA	NA	NA					
	TOTAL PAHS				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.23	ND	ND	ND	ND	1.23	NA	NA	NA
	BENZENE ETHYLBENZENE	1	700	31.2	ug/L	1 U	10	10	1 U	1 U	1 U	1 U	10	NA NA	1 U	10	10	1 U	1 U	10	1 U	10	10	1 U	10	10	NA NA	NA NA	NA NA
	p/m-XYLENE		700		ug/L ug/L	NA.	1 U	1 U	10	1 U	1 U	10	1 U	NA NA	NA.	1 U NA	1 U NA	NA.	1 U NA	1 U NA	NA NA	1 U NA	1 U NA	NA NA	1 U NA	1 U NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA.	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA.	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA
	METHYL TERT BUTYL ETHER TOTAL BTEX				ug/L ug/L	NA 1.1	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA NA	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	10 U ND	10 U ND	10 U ND	NA ND	NA ND	10 U ND	NA NA	NA NA	NA NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.01 U	0.01 U	0.016	NA NA	0.017	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.014	0.037	0.02 U	0.024	0.043	0.018 U	0.018 U					
	BERYLLIUM		0.004		mg/L	0.005 U	NA	NA.	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA NA	NA
	BORON				mg/L	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Total	CHROMIUM	0.013	0.1		mg/L	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U	0.01 U	0.01 U 0.005 U	0.01 U 0.005 U	NA NA	0.01 U	0.01 U	0.01 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U	0.01 U 0.005 U	0.01 U 0.01 U	0.01 U 0.01 U	NA NA	NA NA	NA NA
iwetais, rotai	MAGNESIUM	0.007	0.015	0.015	mg/L mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U NA	0.005 U NA	0.005 U	0.005 U	NA NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U NA	0.005 U	NA.	NA.	NA NA	NA NA	NA NA
	MERCURY		0.002		mg/L	0.0002 U	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA					
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC ARSENIC	0.96	0.018	31	mg/L	0.02 U NA	0.037 NA	0.02 U 0.01 U	0.02 U 0.01 U	0.02 U	0.02 U NA	0.02 U NA	0.02 U 0.01 U	NA 0.01 U	0.023 NA	0.034 NA	0.02 U NA	0.036 NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U 0.018	0.02 U NA	0.02 U NA	0.02 U NA	NA NA	NA NA	NA NA
	BERYLLIUM	0.018	0.018	0.018	mg/L mg/L	NA NA	NA NA	0.01 U NA	0.01 U NA	NA NA	NA NA	NA NA	0.01 U	0.01 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.018 NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM		0.005		mg/L	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA
wetas, ussalved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	NA	NA	NA	NA	NA	NA
	ZINC ALKALINITY	0.96	2	31	mg/L mg/L	NA NA	NA NA	0.02 U NA	0.02 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.039 NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
1	AMMONIA AS N	15	30	30	mg/L	10	12	8.4	7.2	22	9	7.7	10	NA	6.3	5.8	2.3	0.043	5.9	6.9	5.8	25	38	18	38	95	31	38	39
	BICARBONATE				mg/L	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		mg/L	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA	NA NA	NA NA	NA NA
	NITRITE (AS N) SULFATE				mg/l mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SOLIDS, TOTAL DISSOLVED				mg/L	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
-	•				•	•	-							•		•							•			•			

Notes:

| Shaded cell indicates comparison standard used in data evaluation.
| Highlighted cell indicates analytical result receeds comparison criteria.
| Boble and Relix feet indicates analytical result exceeds background value.
| Sharts comparison standard backer on the Maximum Containment set (MCL) established by the USEPA National Primary C
NO - No constituent detected above the laboratory indirum detection limit.
| Indicates constituent was not detected above whise Johnson.
| In Indicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
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			Lo	ocation:												PDMW-7P																		PDMW	V-8R				
			Sampl	le Date: 10/30/1	1997 8/10	0/1999 11/17/19	999 2/25/20	5/15/200	00 8/21/2	000 1/9/2001	7/11/2001 2/4/20	02 9/11/2	002 2/7/2003	6/27/2003	1/30/2004	7/22/2004	3/9/2006	4/2/2008 7/	21/2008 1	10/8/2008	12/4/2009	6/16/2010 12/14/201	0 6/16/201	1 12/7/2011	12/12/2013	6/4/2014	11/4/2014	5/19/2015	1/3/2008	21/2008 10/5/20	12/	4/2009 6/17/2010	12/15/2010	6/15/2011	12/5/2011	12/12/2013	6/3/2014	11/5/2014 5/20	0/2015 11/12/2015
			Sampl	le Type: Norn	mal No	ormal Norma	al Norma	al Norma	l Norn	nal Normal	Normal Norm	al Norm	al Normal	Normal	Normal	Normal	Normal	Normal N	Normal	Normal	Normal	Normal Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Norm	nal No	ormal Normal	Normal	Normal	Normal	Normal	Normal Dup	Normal No	rmal Normal
			San	PDM nple ID: 7P_10/3	IW- PE 30/19 7P_8	DMW- B/10/199 7P_11/1	7/19 7P_2/25/	V- PDM W- /200 7P_5/15/2	200 7P_8/21	W- PDMW- 7P 1/9/2001	PDMW- 7P_7/11/200 PDMV 7P_2/4/2	0002 /P_9/11	W- /200 PDMW- 7P 2/7/2003	/P_0/2//200	PDMW- 7P_1/30/200	PDMW- 7P_7/22/200	PDMW- P_3/9/2006 7		PDMW- _7/21/200 7P	PDMW- P_10/8/200 7	PDMW- 7P_12/4/200	PDMW- 7P_6/16/201 7P_12/14/2	PDMW-7 061611	P. PDMW- 7P_1207201	PDMW- 7P_12/12/20	PDMW- 07P_060420	PDMW- 7P_1104201	7P_0519201	PDMW- 8 4/3/2008	PDMW- PDMV _7/21/200 8R_10/5	W- PE 5/200 8R_1	DMW- 12/4/200 8R_6/17/20			PDMW-8R- 12052011	PDMW- 8R_12/12/20	PDMW- DUP- 02_0603201	1 8R_1105201 8R_0	DMW- 0520201 8R_1112201
				97	<u> </u>	9 99		0	0		<u> </u>			3	4	•			8	8	9	0 10			13	14	4	5		8 8	_	9 0	10			13	4 4		5 5
Method Grou	Analyte ACENAPHTHENE	Background Type 3 RRS	Type 4 RRS	Units Resu		esult Resul			Resi		Result Resu	It Resu		Result 0.2 U	Result 0.2 U	Result 0.2 U	Result 0.2 U			Result 0.19 U	Result 0.19 U	Result Result 0.19 U NA	Result	Result	Result 9.9 U	Result 9.9 U	Result		Result 0.2 U	0.19 U 0.23		esult Result	Result	Result	Result	Result 9.1 U	Result Result 9.9 U 9.9 U		esult Result
	ACENAPHTHYLENE	1.4 1	510	ug/L 1 L		10 10		_	11		10 10	0.2 (0.2 U	0.2 U	0.2 U	0.2 U			0.19 U	0.19 U	0.19 U NA	NA NA	NA NA	9.9 U	9.9 U	NA.		0.2 U	0.19 U 0.19		.19 U 0.19 U	NA NA	NA NA	NA NA	9.1 U	9.9 U 9.9 U		NA NA
	ANTHRACENE	0.2 0.2	5100	ug/L 0.2	U 0	0.2 U 0.2 U			0.2	J 0.2 U	0.2 U 0.2 L			0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA.	9.9 U	9.9 U	NA	NA NA	0.2 U	0.19 U 0.19	-	.19 U 0.19 U	NA NA	NA	NA	9.1 U	9.9 U 9.9 U	NA 1	NA NA
	BENZO(A)ANTHRACENE	0.2 0.1	3.9	ug/L 0.2	U 0	0.2 U 0.2 U	0.2 U	J 0.2 U	0.2	J 0.2 U	0.2 U 0.2 L	0.21	J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA 1	NA NA
	BENZO(A)PYRENE	0.2 0.2	0.39	ug/L 0.2	U 0	0.2 U 0.2 U	0.2 U	J 0.2 U	0.2	J 0.2 U	0.2 U 0.2 L	0.2 (J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA 1	NA NA
	BENZO(B)FLUORANTHENE	0.2 0.2	0.65	ug/L 0.2	U 0	0.2 U 0.2 U	0.2 U	J 0.2 U	0.2	J 0.2 U	0.2 U 0.2 L	0.2 (J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA I	NA NA
	BENZO(G,H,I)PERYLENE			ug/L 0.5		NA NA	NA	_	NA		NA NA	0.2 (0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 UJ 0.19		.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA I	NA NA
	BENZO(K)FLUORANTHENE			ug/L 0.5		NA NA			NA		NA NA		_	0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA		0.2 U	0.19 UJ 0.19		.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	+	NA NA
	CHRYSENE	0.2 0.2	65	ug/L 0.2		0.2 U 0.2 U					0.2 U 0.2 L	_		0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U 0.19 U	0.19 U	0.19 U NA	NA NA	NA NA	9.9 U	9.9 U	NA.		0.2 U	0.19 U 0.19		.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U		NA NA
PAHS	DIBENZO(A,H)ANTHRACENE FLUORANTHENE	0.5 1000		ug/L 1 L		NA NA 0.5 U 0.5 U	_		NA 0.5		NA NA 0.5 U 0.5 L			0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U		0.19 U 0.19 U	0.19 U	0.19 U 0.19 U	0.19 U NA 0.19 U NA	NA NA	NA NA	9.9 U 9.9 U	9.9 U 9.9 U	NA NA	NA NA	0.2 U 0.2 U	0.19 UJ 0.19 0.19 U 0.19		.19 U 0.19 U	NA NA	NA NA	NA NA	9.1 U 9.1 U	9.9 U 9.9 U 9.9 U 9.9 U		NA NA
	FLUORENE	0.5 1000		ug/L 0.5		0.5 U 0.5 U					0.5 U 0.5 L			0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U	0.19 U	0.19 U NA	NA NA	NA NA	9.9 U	9.9 U	NA.		0.2 U	0.19 U 0.19		.19 U 0.19 U	NA.	NA.	NA NA	9.1 U	9.9 U 9.9 U		NA NA
	INDENO(1,2,3-CD)PYRENE	0.4		ug/L 0.5	_	NA NA	-	_	NA NA	_	NA NA		_	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA.	9.9 U	9.9 U	NA.	-	0.2 U	0.19 UJ 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA 1	NA NA
	1-METHYLNAPHTHALENE			ug/L NA	A	NA NA	NA	NA	NA	NA	NA NA	0.2 (J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.75 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.75 U 0.38 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA 1	NA NA
	2-METHYLNAPHTHALENE			ug/L NA	A	NA NA	NA	NA	NA	NA	NA NA	0.2 (J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA I	NA NA
	NAPHTHALENE	1 20	20	ug/L 1 L	U	1U 1U	1 U	1 U	1 L	1 U	1 U 1 U	0.2 (J 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA	NA	0.2 U	0.19 U 0.19	U 0	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	NA I	NA NA
	PHENANTHRENE	0.22 0.2	510	ug/L 0.2		0.2 U 0.2 U		_	0.2		0.2 U 0.2 L			0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA		0.2 U	0.19 U 0.19	-	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	+	NA NA
	PYRENE	0.5 1000		ug/L 0.5	_	0.5 U 0.5 U	-	J 0.5 U	_	_	0.5 U 0.5 L	-		0.2 U	0.2 U	0.2 U	0.2 U		0.19 U	0.19 U	0.19 U	0.19 U NA	NA	NA	9.9 U	9.9 U	NA			0.19 U 0.19	-	.19 U 0.19 U	NA	NA	NA	9.1 U	9.9 U 9.9 U	+	NA NA
	TOTAL PAHs BENZENE		31.2	ug/L ND		ND ND	ND	ND	NE		ND ND	ND 1 U		ND 1 U	ND	0.2	ND	ND 1 U	ND 1 U	ND 1 U	ND	ND NA	NA NA	NA NA	ND 1 II	ND 1 U	NA NA	NA NA	ND 1 U	ND 0.23	-	ND ND	NA NA	NA NA	NA NA	ND	ND ND	+	NA NA
	ETHYLBENZENE	1 700	31.2	ug/L 1 L		10 10	_	_		_	10 10	_	_	10	1 U	1 U	10		1 U	10	1 U	1 U NA	NA NA	NA NA	111	111	NA.	NA NA	10	10 10	_	10 10	NA NA	NA NA	NA NA	1 U	10 10	+	NA NA
	p/m-XYLENE	. , ,,,		ug/L NA		10 10	-		_	_	1U NA	NA.	NA NA	NA.	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	_	NA NA	NA.	NA.	NA NA	NA.	NA NA	+	NA NA
	METHYLENE CHLORIDE			ug/L NA	_	5U NA	NA.	_	NA NA		NA NA	NA.	NA NA	NA	NA	NA .	NA.	NA .	NA	NA	NA	NA NA	NA	NA.	5 U	NA	NA.	NA	NA	NA NA		NA NA	NA	NA	NA	5 U	NA NA	NA 1	NA NA
VOCs	o-XYLENE			ug/L NA	A	10 10	1 U	1 U	1 L	1.0	1 U NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA	١	NA NA	NA	NA	NA	NA	NA NA	NA 1	NA NA
	TOLUENE	1 1000	1900	ug/L 1 U	U	1 U 1 U	1 U	1 U	1 L	1.3	1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U NA	NA	NA	1 U	1 U	NA	NA	1 U	10 10	J	10 10	NA	NA	NA	1 U	10 10	NA 1	NA NA
	XYLENES (TOTAL)	2 10000		ug/L 2 U	U	1 U 1 U	1 U	1 U	1 L	1 U	1 U 2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U NA	NA	NA	2 U	2 U	NA	NA	2 U	2 U 2 U	J	2 U 2 U	NA	NA	NA	2 U	2 U 2 U	NA I	NA NA
	METHYL TERT BUTYL ETHER			ug/L NA	_	NA NA			NA		NA NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 U NA	NA	NA	10 U	NA	NA	NA	10 U	10 U NA	١.	NA 10 U	NA	NA	NA	10 U	NA NA		NA NA
	TOTAL BTEX			ug/L ND		ND ND	_	_	NE		ND ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND NA	NA	NA .	ND	ND	NA	NA	ND	ND ND		ND ND	NA NA	NA .	NA	ND	ND ND		NA NA
	ARSENIC	0.018 0.018	0.018	mg/L 0.020		NA NA	J 0.01 L		0.02 NA		0.023 0.024 NA NA	0.01	U 0.047	0.01 U NA	0.015	0.018	0.01 U	0.01 U	0.023	0.043	0.091 NA	0.026 0.023	0.038	0.018 U	0.0097	0.02 U	0.02 U	0.02 U NA	0.053	0.08 0.09		.02 U 0.08 NA NA	0.036 U NA	0.04	0.018 U NA	0.01	0.029 0.028 NA NA		.02 U 0.02 U NA NA
	BERYLLIUM BOBON	0.004		mg/L 0.005		NA NA			NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA
	CADMIUM	0.005		mg/L 0.005		NA NA			NA NA		NA NA	NA.	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA
	CALCIUM METAL			mg/L NA	A	NA NA			NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA NA	NA.	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	NA 1	NA NA
	CHROMIUM	0.013 0.1		mg/L 0.01	1 U 0.	I.01 U 0.01 L	J 0.01 L	U 0.01 U	0.01	U 0.01 U	0.01 U 0.01 I	J 0.01	U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U NA	NA	NA	0.01 U	0.01 U	NA.	NA	0.01 U	0.01 U 0.01	U 0	.01 U 0.01 U	NA	NA	NA	0.01 U	0.01 U 0.01 U	NA I	NA NA
Metals, Total	LEAD	0.007 0.015	0.015	mg/L 0.005	5 U 0.0	005 U 0.005	U 0.005	U 0.005 U	0.005	U 0.005 U	0.005 U 0.005	U 0.005	U 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U 0.005	5 U 0	.01 U 0.01 U	NA	NA	NA	0.01 U	0.01 U 0.01 U	0.01 U 0.0	.01 U 0.01 U
	MAGNESIUM			mg/L NA	A	NA NA	_		NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA	١.	NA NA	NA	NA	NA	NA	NA NA	NA I	NA NA
	MERCURY	0.002		mg/L 0.000		NA NA			NA		NA NA		_	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA.	NA	NA	NA	NA	NA NA	_	NA NA	NA	NA	NA	NA	NA NA		NA NA
	NICKEL POTASSIUM	0.13 0.1	2	mg/L 0.04		NA NA			0.04 NA		0.04 U 0.04 I			0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA		0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA NA NA	NA NA	NA NA	0.0053 NA	0.04 U NA	NA NA	NA NA	0.04 U NA	0.04 U 0.04 NA NA		.04 U 0.04 U NA NA	NA NA	NA NA	NA NA	0.0036 NA	0.04 U 0.04 U NA NA		.04 U 0.04 U NA NA
	SODIIM			mg/L NA		NA NA	NA NA		NA NA		NA NA	NA NA	_	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA
	ZINC	0.96 2	31	mg/L 0.02	_	I.02 U 0.02 L		_	_		0.02 U 0.02 I			0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U NA	NA.	NA.	0.02 U	0.02 U	NA.		0.02 U	0.02 U 0.02	_	.02 U 0.02 U	NA NA	NA .	NA NA	0.02 U	0.02 U 0.02 U		NA NA
	ARSENIC	0.018 0.018	0.018	mg/L NA		NA 0.01 L					0.01 U 0.01 I			NA	NA	NA	NA		NA	NA	NA	NA NA	NA	NA	NA	NA	NA.	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	NA I	NA NA
	BERYLLIUM	0.004		mg/L NA	A	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	NA I	NA NA
	CADMIUM	0.005		mg/L NA	A	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	NA I	NA NA
Metals, Dissolved	CHROMIUM	0.013 0.1		mg/L NA		NA 0.01 L	_	_	NA		NA NA			NA	NA	NA	NA		NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA		NA NA
	LEAD	0.007 0.015		mg/L NA		NA 0.005	_	_			NA NA		_	NA	NA	NA	NA			NA	NA	NA NA	NA		NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA		NA NA
	MERCURY	0.002		mg/L NA		NA NA					NA NA	_	_	NA	NA	NA	NA			NA	NA	NA NA			NA	NA	NA	NA	NA	NA NA	_	NA NA	NA	NA	NA	NA	NA NA		NA NA
	NICKEL ZINC	0.13 0.1 0.96 2	2	mg/L NA	_	NA 0.04 L	_		_	_	NA NA		_	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA
	ALKALINITY			mg/L NA		NA NA					NA NA			NA NA	NA NA	NA NA	NA.			NA NA	NA NA	NA NA			NA.	NA NA	NA.	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	+	NA NA
	ALKALINITY, TOTAL (AS CACO3)			mg/L NA		NA NA	_			_	NA NA			NA	NA	NA	NA		NA	NA	NA	NA NA			NA.	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA		NA NA
	AMMONIA AS N	15 30	30			35 30					26 20	_		36	0.14	23	15	12	15	9.2	7.8	6.4 NA	12		13	12	16	16	31			41 63		60	68	39	62 63		64 60
	BICARBONATE			mg/L NA	A	NA NA	NA	NA	NA	NA.	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA.	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	NA I	NA NA
Miscellaneous	CARBONATE			mg/L NA	A	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA			NA	NA	NA NA	NA	_	NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA	+	NA NA
	CONDUCTIVITY			umhos/ cm NA		NA NA					NA NA			NA	NA	NA	NA		NA	NA	NA	NA NA	_	_	NA	NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA	NA	NA NA		NA NA
	NITRATE (AS N)	10		mg/L NA		NA NA		_		_	NA NA			NA	NA	NA	NA			NA	NA	NA NA	_	_	0.095	0.05 U	0.05 U	0.05 U	NA	NA NA	-	NA NA	NA	NA	NA	0.05 U	0.05 U 0.05 U	+	.05 U 0.05 U
	NITRITE (AS N) SULFATE			mg/L NA		NA NA	_	_	_		NA NA	_		NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	_	_	NA NA	NA NA	NA NA	0.11 NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		0.05 0.05 U NA NA
	SOLIDS, TOTAL DISSOLVED			mg/L NA		NA NA					NA NA			NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	+	NA NA
SVOCs	1,4-DICHLOROBENZENE			ug/L NA		NA NA	_	_			NA NA	_		NA NA	NA NA	NA NA	NA.			NA NA	NA NA	NA NA	_	_		NA NA	NA.		NA NA	NA NA	_	NA NA		NA NA	NA NA	1 U	NA NA		NA NA
-														•	•	I					1		•	•	•					ı									

Notes:

| Shaded cell indicates comparison standard used in data evaluation.
| "gligified cell indicates analytical result exceeds comparison criteria.
| Boald and fasile tear inclination analytical result exceeds background value.
| In Nata comparison standard based on the Maximum Containant Level (MCL) stabilished by the USEPA National Primary C
| No- No constituents detected above the laboratory minimum detection limit.
| Undidates constituent was not detected above value shown.
| Indicates constituent was not detected above value shown.
| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value shown.
| Nonlining sells MM 38, POMM 49, POMM 49, POMM 101, POMM 118, POMM 218, POMM 218, POMM 318, POMM 318, POMM 318, POMM 418, POMM

				Locati	on:							PDMW-8T																		PDMW-9T												
				Sample Da		97 8/10/1999	11/17/199	9 2/25/2000	5/16/200	00 8/21/2000	1/10/2001	7/11/2001	2/6/2002	9/12/2002 2/6/20	13 6/25/200	3 1/29/2004	7/20/2004	3/6/2006	10/30/1997	8/9/1999	11/16/1999	2/24/2000	5/16/2000	8/21/2000 1/10	0/2001 7/12/200	1 2/6/2002	9/11/2002	2/3/2003	6/25/2003	1/29/2004	7/22/2004	3/8/20	06	4/3/2008	7/21/2008	10/5/2008	12/3/2009	6/17/2010 12/1	14/2010 6/	15/2011 12/5/2	5/2011 12/	2/21/2011
				Sample Ty	pe: Normal	I Normal	Normal	Normal	Normal	l Normal	Normal	Normal	Normal	Normal Norm	I Norma	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal No	rmal Norma	Normal	Normal	Normal	Normal	Normal	Normal	Norm	al	Normal	Normal	Normal	Normal	Normal No	ormal N	ormal Nor	rmal N	Normal
					PDMW-	- PDMW-	PDMW-	PDMW-	PDMW-	- PDMW-	PDMW-	PDMW-	PDMW-	PDMW-PDMV	, PDMW	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PD	MW- PDMW	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-9T	PDMW-9T	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PD	DMW- PD	MW-9T- PDMV	W-9T-	PDMW-
				Sample	ID: 8T_10/29/ 97	/19 8T_8/10/19 9	99 8T_11/17/1 99	19 8T_2/25/200 0	8T_5/16/2 0	8T_8/21/200 0	8T_1/10/200 1	8T_7/11/200 1	8T_2/6/2002	8T_9/12/200 2 PDMV 8T_2/6/2	003 8T_6/25/2 3	8T_1/29/200 4	8T_7/20/200 4	8T_3/6/2006	9T_10/30/19 97	9T_8/9/1999	9T_11/16/19 99	9T_2/24/200 0	9T_5/16/200 0	9T_8/21/200 9T_1 0	/10/200 9T_7/12/2 1 1	9T_2/6/200	9T_9/11/200 2	PDMW- 9T_2/3/2003	9T_6/25/200 3	9T_1/29/200 4	9T_7/22/200 4	Filtered_3/8 U /2006	/8/2006	9T_4/3/2008	9T_7/21/200 8	9T_10/5/200 8	9T_12/3/200 9T 9	7_6/17/201 9T_1 0		61511 12052		1 1221201
Method Grou	Analyte	Background	Type 3 RRS	Type 4 RRS Un	its Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Resu	t Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Re	sult Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Re	esult F	Result Res	esult F	Result
	ACENAPHTHENE	1	2000	ug	/L 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U 0.2 L	0.2 U	0.2 U	0.2 U	0.96 U	1 U	1 U	1 U	1 U	1 U	1 U	10 10	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2	0.19 U	0.23	0.23	0.47	0.37	0.43	0.51	NA	NA N	NA A	NA
	ACENAPHTHYLENE	1.4	1	510 ug	/L 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U 0.2 L	0.2 U	0.2 U	0.2 U	0.96 U	1 U	1 U	1 U	1 U	1 U	1 U	10 10	1.6	0.22	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA N	NA	NA
	ANTHRACENE	0.2	0.2	5100 ug	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U 0.2 L			0.2 U	0.96 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	_	2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U						NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug	/L 0.2 U		0.2 U	0.2 U	0.2 U	_	0.2 U	0.2 U	0.2 U	0.2 U 0.2 L			0.2 U	0.96 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U						NA
	BENZO(A)PYRENE BENZO(B)FLUORANTHENE	0.2	0.2	0.39 ug	/L 0.2 U		0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U		0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 L			0.2 U	0.96 U 0.96 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	_	2U 0.2U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U						NA NA
	BENZO(G,H,I)PERYLENE			ua	/L 0.5 U		NA.	NA.	NA.	NA.	NA NA	NA NA	NA NA	0.2 U 0.2 L			0.2 U	0.96 U	0.5 U	NA NA	0.5 U	NA.	NA NA	_	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	-				NA .	NA.
	BENZO(K)FLUORANTHENE			ug	/L 0.5 U		NA	NA.	NA	NA NA	NA NA	NA	NA	0.2 U 0.2 L			0.2 U	0.96 U	0.5 U	NA	0.2 U	NA	NA		NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U				NA NA		NA
	CHRYSENE	0.2	0.2	65 ug	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2 L	0.2 U	0.2 U	0.2 U	0.96 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0	.2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA N	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug	/L 1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.96 U	1 U	NA	0.2 U	NA	NA	NA	NA NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA N	NA	NA
	FLUORANTHENE	0.5	1000	ug	/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.96 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0	.5 U 0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA N	IA.	NA
	FLUORENE	0.5	1000	ug	/L 0.5 U		0.5 U	0.5 U	0.5 U	_	0.5 U	0.5 U	0.5 U	0.2 U 0.2 L	_	_	0.2 U	0.96 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0	.5 U 0.5 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U			NA			NA
	INDENO(1,2,3-CD)PYRENE		0.4	ug	/L 0.5 U		NA	NA	NA	NA	NA	NA	NA	0.2 U 0.2 L			0.2 U	0.96 U	0.5 U	NA	0.2 U	NA	NA		NA NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U		*****		NA N		NA
	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE			ug	/L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 L			0.2 U	0.96 U 0.96 U	NA NA	NA NA	1 U	NA NA	NA NA	_	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.21 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.4 0.19 U	0.19 U 0.19 U					NA NA	NA NA
	NAPHTHALENE	1	20	20 ug	/L 1U		1 U	1 U	1 U	_	1 U	1 U	1 U	0.2 U 0.2 L			0.2 U	0.96 U	1 U	1 U	10	1 U	1 U		10 10	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U						NA NA
	PHENANTHRENE	0.22	0.2	510 ug	/L 0.2 U		0.2 U	0.2 U	0.2 U	_	0.2 U	0.2 U	0.2 U	0.2 U 0.2 L			0.2 U	0.96 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		2U 0.2U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U						NA
	PYRENE	0.5	1000	ug	/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U 0.2 L	0.2 U	0.2 U	0.2 U	0.96 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U 0	.5 U 0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA N	NA	NA
	TOTAL PAHs			ug	/L ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	1.6	0.22	ND	0.21	ND	0.2	ND	0.23	0.23	0.87	0.37	0.43	0.7	NA	NA N	NA	NA
	BENZENE	1	5	31.2 ug	/L 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 10	1 U	1 U	1 U	1 U	1.8	1 U	1 U	1 U	1 U	1 U	10 10	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA N	NA	NA
	ETHYLBENZENE	1	700	ug	/L 1 U	-	1 U	1 U	1 U	_	1 U	1 U	1 U	10 10			1 U	1 U	1 U	1 U	1 U	1 U	1.4	_	10 10	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U					NA
	p/m-XYLENE			ug	/L NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U		10 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					NA
VOC.	METHYLENE CHLORIDE o-XYLENE			ug	/L NA	5 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U	NA 1 U	NA 1 U	NA 1 U		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA N		NA NA
1003	TOLUENE	1	1000	1900 ug	/L 1U		1 U	1 U	1 U		10	10	1 U	10 10	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U	1		10 10	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U			NA N		NA NA
	XYLENES (TOTAL)	2	10000	ug	/L 2 U	_	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U 2 U	2 U		2 U	2 U	2 U	1 U	1 U	1 U	1 U		10 10	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	NA .	NA NA	NA	NA
	METHYL TERT BUTYL ETHER			ug	/L NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA.	NA	NA	10 U	NA	NA	NA	NA	NA	NA.	NA NA	NA	NA	NA	NA	NA	NA.	NA	10 U	10 U	10 U	NA	NA	10 U	NA	NA N	NA	NA
	TOTAL BTEX			ug	/L ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	1.8	ND	ND	ND	2.4	ND	ND ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA N	NA	NA
	ARSENIC	0.018	0.018	0.018 mg	y'L 0.01 U		0.01 U	0.01 U	0.01 U	_	0.01 U	0.01 U	0.01 U	0.011 0.01			0.01 U	0.01 U	0.0134	0.067	0.04	0.016	0.035		.012 0.037	0.024	0.062	0.024	0.061	0.037	0.072	0.019	0.018	0.019	0.02	0.017						0.018 U
	BERYLLIUM		0.004	mg	/L 0.005 U	-	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA		NA NA	NA	NA .	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA					NA
	BORON		0.005	mg	y'L NA y'L 0.005 U	NA I NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.005 U	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
	CALCIUM METAL			mg	/L 0.005 0	NA NA	NA NA	NA NA	NA.	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
	CHROMIUM	0.013	0.1	mg	/L 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U 0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.	01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA			NA
Metals, Total	LEAD	0.007	0.015	0.015 mg	y'L 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U 0.005	J 0.005 U	0.005 U	0.005 U	0.005 U	0.0078	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U 0.0	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	NA	NA N	NA	NA
	MAGNESIUM			mg	y'L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	ŧΑ	NA
	MERCURY		0.002	mg	y/L 0.0002 L		NA	NA	NA	NA	NA	NA	NA	NA NA	NA.	NA	NA	NA	0.0002 U	NA	NA	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA			NA
	NICKEL	0.13	0.1	2 mg	y'L 0.04 U		0.04 U	0.04 U	0.04 U		0.04 U	0.04 U	0.04 U	0.04 U 0.04 I	_		0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U		04 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U				NA N		NA
	POTASSIUM			mg	y'L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
	ZINC	0.96	2	31 mg	/L 0.02 U		0.02 U	_	0.02 U	_	0.02 U	0.02 U	0.02 U	0.02 U 0.02		_	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		02 U 0.02 U			0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U						NA NA
	ARSENIC	0.018	0.018	0.018 mg	/L NA		0.01 U		NA	0.01 U	NA	NA	NA	NA NA		NA	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U		01 U 0.01 U		_	NA	NA	NA	NA	0.019	NA	NA	NA	NA	NA .		NA		NA	NA
	BERYLLIUM		0.004	mg	/L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	4A	NA
	CADMIUM		0.005	mg	y'L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1	mg	_		0.01 U		+		NA	NA	NA	NA NA		_	NA	NA	NA	NA	0.01 U	0.01 U	NA		NA NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA						NA
	LEAD	0.007	0.015	0.015 mg	_			-			NA	NA	NA	NA NA	_		NA	NA	NA	NA	0.005 U	0.005 U	NA		NA NA	NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA					NA
	MERCURY		0.002	mg	_		NA OALL		NA NA		NA NA	NA NA	NA NA	NA NA	_	_	NA NA	NA NA	NA NA	NA NA	NA .	NA .	NA NA		NA NA	NA NA	NA NA	NA NA	NA	NA	NA NA	NA .	NA NA	NA NA	NA NA	NA NA	NA NA					NA
	ZINC	0.13	0.1	2 mg	y'L NA		0.04 U 0.02 U		_		NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	0.04 U 0.02 U	0.04 U 0.02 U	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U 0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
-	ALKALINITY			mg			NA		NA NA		NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
	ALKALINITY, TOTAL (AS CACO3)			mg	-		NA		NA		NA NA	NA	NA	NA NA			NA	NA	NA	NA	NA	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					NA
	AMMONIA AS N	15	30	30 mg	y'L 60	52	73	56	65	47	55	65	83	110 94	62	47	64	34	190	200	170	140	160	150	58 120	100	200	130	44	170	180	NA	120	170	170	120	16	93	180	170 14	140	NA
	BICARBONATE			mg			NA	NA	NA	_	NA	NA	NA	NA NA			NA	NA	NA	NA	NA	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					NA
Miscellaneous	CARBONATE			mg	y/L NA		NA	NA	NA		NA	NA	NA	NA NA			NA	NA	NA	NA	NA	NA	NA	_	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					NA
	CONDUCTIVITY			umh			NA		NA		NA	NA	NA	NA NA			NA	NA	NA	NA	NA	NA	NA		NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .					NA
	NITRATE (AS N) NITRITE (AS N)		10	mg			NA NA		NA NA		NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA						NA NA
	NITRITE (AS N) SULFATE			mg					NA NA		NA NA	NA NA	NA NA	NA NA	_	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
	SOLIDS, TOTAL DISSOLVED			mg			NA NA	NA.	NA NA		NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA					NA NA
SVOCs	1,4-DICHLOROBENZENE			ug		_		_	NA		NA	NA	NA	NA NA	_		NA	NA	NA	NA	NA	NA	NA		NA NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA						NA
																																										_

Notes:

Shaded cell indicates comparison standard used in data evaluation.

"ghi ghied cell indicates analytical result exceeds comparison criteria.

Bold and fails text indicates analytical result exceeds background value.

In Nirata comparison standard backe on the Maximum Containmant steet (MCL) stabilished by the USEPA National Primary C

NO - No constituents detected above the laboratory indirum detection limit.

Lindicates constituent was not detected above value shown.

Lindicates constituent was not detected above value shown.

Lindicates constituent was not extend at an estimated value.

Uninclates constituent was not detected at an estimated value.

Monitoring will s MW 3F, POMW 4F, POMW 10F, POMW 11F, POMW 11F, POMW 21F, POMW 32F, POMW 32F, POMW 32F, POMW 32F, POMW 42F, POMW 11F, POMW 11F, POMW 11F, POMW 11F, POMW 11F, POMW 21F, POMW 32F, POMW 32F, POMW 42F, POMW 42F, POMW 11F, POMW

Sample Type: Normal Dup Normal	Normal Normal Normal POMW- P	
Policy P	PDMW-	PDMW- PDMW- PDMW- PDMW- PDMW- R DUP 2/ 11R 6/24/20 11R 1/29/20 11R 7/22/20 11R 3/7/200
Method Group Analyte Background Type 3 RR Type 4 RR Unit Type 4 RR Unit Type 3 RR Type 4 RR Unit Type 4 RR Unit Type 3 RR Type 4 RR Unit Type 4 Result	2 02 3 5	PDMW- R_DUP_2/ 11R_6/24/20 11R_1/29/20 11R_7/22/20 11R_3/7/200 5/2003 03 04 04 PDMW- PDMW- PDMW- PDMW- PDMW- PDMW- PDMW- PDMW- PDMW- O4 6
Method Group	2 02 3 5	5/2003 03 04 04 6
ACEMPHITHEME 1 2000 UpL 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19		
ACEMAPHITMENE 1.4 1 510 Upl 0.19U 0.	1 U 1 U 0.2 U	Result Result Result Result
ANTHFRACENE 02 02 5100 upl 0.19U 0.2U NA 8.2U 9.1U 9.8U NA NA NA NA 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U		0.2 U 0.2 U 0.2 U 0.19 U
		0.2 U 0.2 U 0.2 U 0.19 U
BENZO/ANNTHRACENE 0.2 0.1 0.9 ugl 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19		0.2 U 0.2 U 0.2 U 0.19 U
		0.2 U 0.2 U 0.2 U 0.19 U
BENZO(A)PYRENE 02 0.2 0.39 ugl. 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 9.2U 9.1U 9.8U NA NA NA 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U		0.2 U 0.2 U 0.2 U 0.2 U 0.19 U 0.2 U 0.19 U
BENZOJG,HJPERYLEME ugl 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA		0.2 U 0.2 U 0.2 U 0.2 U 0.19 U
BENZOKIC/LUGRATNENE		0.2 U 0.2 U 0.2 U 0.19 U
CHRYSENE 0.2 0.2 65 UgL 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 9.2U 9.1U 9.8U NA NA NA NA 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U	0.2 U 1 U 0.2 U C	0.2 U 0.2 U 0.2 U 0.19 U
PARS DESIGNADA, MATERIA CENE 63 19L 0.19L	NA 1 U 0.2 U 0	0.2 U 0.2 U 0.2 U 0.19 U
FLUGRANHERS 0.5 1000 Upt 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 9.2U 9.1U 9.8U NA NA NA NA 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U	0.5 U 1 U 0.2 U C	0.2U 0.2U 0.2U 0.19U
FLUCRENE 0.5 10000 ugl. 0.19U 0.22 0.19U 0.19U 1.4J NA 92U 9.1U 9.8U NA NA 0.5U 1.1J 0.98 0.5U 0.5U 0.5U 0.5U 0.5U 0.39 0.71 0.34 0.58 0.49 1.9U 0.5U 0.63 1 0.5U 0.55	0.5 U 1 U 0.2 U C	0.2 U 0.2 U 0.2 U 0.19 U
NDENCI1,23-COPPRENE 0.4 Upt 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 92U 9.1U 9.8U NA		0.2 U 0.2 U 0.2 U 0.19 U
		0.2 U 0.2 U 0.2 U 0.2 U 0.19 U 0.2 U 0.19 U
2MEHYDAVHHALENE 1 20 20 UgL 0.19U 0.		0.2 U 0.2 U 0.2 U 0.2 U 0.19 U
PHENAITHRENE 0.22 0.2 510 UgL 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 9.2U 9.1U 9.8U NA NA NA NA 0.79 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U 0.2U		0.2U 0.2U 0.2U 0.2U 0.19U
PYRENE 0.5 1000 Up. 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.19U 0.2U NA 9.2U 9.1U 9.8U NA NA NA 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U 0.5U		0.2 U 0.23 0.2 U 0.2 U 0.19 U
TOTAL PAHS	5.8 ND ND	ND 0.23 ND ND ND
BENZENE 1 5 312 UgL 1U	10 10 10	10 10 10 10 10
ETHYSBENZENE 1 700 ugL 1U 1U 1U 1U 1U 1U 10 NA 1U	10 10 10	10 10 10 10 10
PITESTATES USL NA	NA NA NA	NA NA NA NA
METHYLENE CHLORIDE ugl NA	NA NA NA	NA NA NA NA NA
TOLUENE 1 1000 1900 UpL 1U	NA NA NA	1U 1U 1U 1U 1U
MILNES (TOTAL) 2 19000 up. 2 U 2U	2U 2U 2U	20 20 20 20 20
METHYL TERTE BUTYL ETHER	NA NA NA	NA NA NA 10 U
TOTAL BTEX ugl ND	ND ND ND	ND ND ND ND ND
ARSENCC 0.018 0.018 0.018 0.018 0.018 0.018 0.018 0.010 0.01	0.018 0.016 0.011 0	0.01 U 0.016 0.01 U 0.012 0.012
BERYLIUM 0.0004 mgl NA	NA NA NA	NA NA NA NA
5050N mgt. NA	NA NA NA	NA NA NA NA
CADMIUM 0.005 mgL NA	NA NA NA	NA NA NA NA NA
CHROMIUM 0.013 0.1 mg/L 0.01U		0.01 U 0.01 U 0.01 U 0.01 U 0.01 U
Medids, Total LEAD 0.007 0.015 0.015 0.015 0.015 0.005 U 0.005		0.005 U 0.005 U 0.005 U 0.005 U
MACRISILIM	NA NA NA	NA NA NA NA
MERICURY 0.002 mgL NA	NA NA NA	NA NA NA NA
NOMEL 0.13 0.1 2 mg/L 0.04/U 0	0.04 U 0.04 U 0.04 U 0	0.04 U 0.04 U 0.04 U 0.04 U
POTASSEMM mgit na	NA NA NA	NA NA NA NA
SCOUM mgL NA	NA NA NA	NA NA NA NA NA
ZNC 0.96 2 31 mg/L 0.02 U 0.02 0.02 U 0.02 0.02 U 0	0.02 U 0.02 U 0.02 U 0 0.01 U NA NA	0.02 U 0.02 U 0.02 U 0.02 U 0.02 U NA NA NA NA NA
SERYLLUM	+ + + + +	NA NA NA NA NA
CADMIUM 0.005 mgL NA		NA NA NA NA
HIGHING TOPOLOGY CHROMIUM 0.013 0.1 mgL NA	NA NA NA	NA NA NA NA
Metals, Dissolved LEAD 0.007 0.015 0.015 mg/L NA	NA NA NA	NA NA NA NA
MERCURY 0.002 mgL NA	+ + + + + + + + + + + + + + + + + + + +	NA NA NA NA
NICKEL 0.13 0.1 2 mg/L NA	+ + + + +	NA NA NA NA
ZINC 0.96 2 31 mgL NA		NA NA NA NA NA NA NA NA
ALKALENITY mg/L NA		NA NA NA NA NA
AMMONIA AS N 15 30 30 mg/L 13 15 18 9.9 13 16 11 11 13 12 7.3 7.9 NA 2.1 14 7.5 3.8 18 0.49 11 14 9.4 0.49 3.6 0.52 3.7 4.1 4.7 NA 8.6 13 12 2.4 5		0.4 0.61 0.035 0.85 0.41
BICARBONATE mgl na		NA NA NA NA
CARBONATE mgl NA	NA NA NA	NA NA NA NA
Miscellineous CONDUCTIVITY umitosi na	NA NA NA	NA NA NA NA
NITRATE (AS N) 10 mg/L NA	NA NA NA	NA NA NA NA
NTRITE (AS N) mg1 NA		NA NA NA NA
SULFATE mg/L NA		NA NA NA NA NA
SOLDS, TOTAL DISSOLVED mg L NA		NA NA NA NA NA NA NA NA
	104 1975	197 195

Notes:

Shaded cell indicates comparison standard used in data evaluation.

In splitighted cell indicates analytical result exceeds comparison criteria.

Bodd and Rolls feet indicates analytical result exceeds background value.

In Nivra to comparison so sandard back on the Maximum Containance Level (MCL) established by the USEPA National Primary (
NO. No constituents detected above the laboratory informal detection lines.

I indicates constituent was not detected above value shown.

I indicates constituent was not detected at an estimated value.

Uniformation constituent was not detected at an estimated value.

Uniformation constituent was not detected at an estimated value.

Monitoring wells, MMV-38, POAMW-48P, POAMW-18P, POAMW-18TP, POAMW-23P, POAMW-23P, POAMW-33P, PO

				L	ocation:											PDMW-12P										
				Samp	ole Date:	10/28/1997	8/9/1999	11/17/1999	2/23/2000	5/15/2000	8/22/2000	1/9/2001	7/12/2001	2/5/2002	9/12/2002	2/5/2003	6/27/2003	1/29/2004	7/23/2004	3/7/2006	4/1/2008	7/19/2008	10/9/2008	12/3/2009	6/18/2010	6/16/2011
				Samp	le Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
				Sa	imple ID:	PDMW- 12P_10/28/1 997	PDMW- 12P_8/9/199 9	PDMW- 12P_11/17/1 999	PDMW- 12P_2/23/20 00	PDMW- 12P_5/15/20 00	PDMW- 12P_8/22/20 00	PDMW- 12P_1/9/200 1	PDMW- 12P_7/12/20 01	PDMW- 12P_2/5/200 2	PDMW- 12P_9/12/20 02	PDM W- 12P_2/5/200 3	PDMW- 12P_6/27/20 03	PDMW- 12P_1/29/20 04	PDMW- 12P_7/23/20 04	PDMW- 12P_3/7/200 6	PDMW- 12P_4/1/200 8	PDMW- 12P_7/19/20 08	PDMW- 12P_10/9/20 08	PDMW- 12P_12/3/20 09	PDMW- 12P_6/18/20 10	PDMW- 12P_061611
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA				
	ACENAPHTHYLENE	1.4	1	510	ug/L	1 U	10	1 U	10	10	1 U	1 U	1.4	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA				
	ANTHRACENE BENZO(A)ANTHRACENE	0.2	0.2	5100 3.9	ug/L ug/L	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	3.9 U 3.9 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA				
	BENZO(A)PYRENE	0.2	0.1	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA NA				
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA				
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.				
	BENZO(K)FLUORANTHENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA				
	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA				
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.				
	FLUORANTHENE FLUORENE	0.5	1000		ug/L ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA NA	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	3.9 U	0.19 U*	0.19 U 0.19 U	NA NA
	INDENO(1.2.3-CD)PYRENE	0.5	0.4		ug/L	0.5 U	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA.	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA NA				
	1-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.76 U	0.38 U	NA.				
	2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.				
	NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.24	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.
	PHENANTHRENE	0.22	0.2	510	ug/L	0.22	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.				
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.19 U	0.19 U	0.19 U	3.9 U	0.19 U	0.19 U	NA.				
	TOTAL PAHS BENZENE		5	31.2	ug/L ug/L	0.22 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	1.4 1 U	NA NA	ND 1 U	ND 1 U	ND 1 U	0.24 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	NA NA
	ETHYLBENZENE	1	700	31.2	ug/L	10	10	10	10	10	10	10	10	NA NA	10	1 U	10	10	10	1 U	1 U	10	1 U	10	1 U	NA.
	p/m-XYLENE				ug/L	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA.	NA.	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA
	METHYL TERT BUTYL ETHER				ug/L	NA NB	NA NA	NA NA	NA NA	NA NB	NA NB	NA NA	NA NB	NA NA	NA NA	NA NA	NA ND	NA NE	NA ND	10 U	10 U	10 U	NA NA	NA ND	10 U	NA NA
-	TOTAL BTEX ARSENIC	0.018	0.018	0.018	ug/L mg/L	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	NA NA	ND 0.01 U	ND 0.01 U	0.01 U	ND 0.018	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	0.02 U	ND 0.02 U	NA NA
	BERYLLIUM		0.004		mg/L	0.005 U	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA				
Metals, Total	LEAD MAGNESIUM	0.007	0.015	0.015	mg/L	0.005 U NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.016	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U
	MERCURY		0.002		mg/L mg/L	0.0002 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA.	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA.				
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA
	SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC	0.96	2	31	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.059	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.11	0.053	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA.
	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	BERYLLIUM		0.004		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM	0.013	0.005		mg/L mg/L	NA NA	NA NA	NA 0.01 U	NA 0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA NA	NA NA	0.005 U	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	ZINC	0.96	2	31	mg/L	NA	NA	0.02 U	0.02 U	NA	NA	0.065	NA	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	ALKALINITY, TOTAL (AS CACO3)		20		mg/L	NA NA	NA 2.2	NA 2.6	NA 0.66	NA 2.1	NA o e	NA 0.15	NA 1.7	NA NA	NA 2.2	NA 0.92	NA 2.2	NA 0.5	NA 2.4	NA 0.22	NA 0.22	NA 0.7	NA 0.60	NA 0.14	NA	NA NA
	AMMONIA AS N BICARBONATE	15	30	30	mg/L mg/L	NA NA	3.2 NA	3.6 NA	0.66 NA	2.1 NA	8.6 NA	0.15 NA	1.7 NA	NA NA	3.3 NA	0.83 NA	3.3 NA	0.5 NA	2.4 NA	0.23 NA	0.22 NA	0.7 NA	0.69 NA	0.14 NA	1.1 NA	NA NA
	CARBONATE				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.
Miscellaneous	CONDUCTIVITY				umhos/	NA	NA NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA	NA	NA.	NA.	NA.	NA NA	NA NA	NA	NA.
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	NITRITE (AS N)				mg/I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	SULFATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
	SOLIDS, TOTAL DISSOLVED				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cell indicates comparison standard used in data evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Rod and Rollic for indicates analytical result exceeds background value.

In Nitra comparison standard back on the Maximum Containnate Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above the laboratory infinium detection limit.

J: Indicates constituent was not detected above value shown.

J: Indicates constituent was not detected at an estimated value.

U: Indicates constituent was not detected at an estimated value shown.

Monitoring words NW-31, POMW 48, POMW-101, POMW-111, POMW-111, POMW-318, POMW-318, POMW-318, POMW-331, POM

				L	ocation:															PDMW-13P														
				Samp	ple Date:	10/28/1997	8/9/1999	11/18/1999	2/25/2000	5/16/2000	8/22/2000	1/9/2001	7/16/2001	2/5/2002	9/11	/2002	2/5/2003	6/26/2003	1/29/2004	7/22/2004	3/5/2006	4/2/2008	7/19/2008	10/9/2008	12/1/2009	6/18/2010	12/16/2010	6/14/2011	12/5/2011	12/11/2013	6/5/2014	11/5/2014	5/19/2015	11/11/2015
				Samp	ole Type:	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal																			
				Sa	imple ID:	PDMW- 13P_10/28/1	PDMW- 13P_8/9/199	PDMW- 13P_11/18/1	PDMW- 13P_2/25/20	PDMW- 13P_5/16/20	PDMW- 13P_8/22/20	PDMW- 13P_1/9/200	PDMW- 13P_7/16/20	PDMW- 13P_2/5/200	PDMW- 13P_9/11/20	PDMW-13P (DUP)_9/11/	PDMW- 13P_2/5/200	PDMW- 13P_6/26/20	PDMW- 13P_1/29/20	PDMW- 13P_7/22/20	PDMW- 13P_3/5/200	PDMW- 13P_4/2/200	PDMW- 13P_7/19/20	PDMW- 13P_10/9/20	PDMW- 13P_12/1/20	PDMW- 13P_6/18/20	PDMW- 13P_12/16/2	PDMW- 13P 061411	PDMW-13P- 12052011	PDMW- 13P_12/11/2	PDMW- 13P_060520	PDMW- 13P_110520	PDMW- 13P_051920	PDMW- 13P_111120
						997	9	999	00	00	00	1	01	2	02	2002	3	03	04	04	6	8	08	80	09	10	010	13P_061411	12052011	013	14	14	15	15
Method Grou		Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
	ACENAPHTHENE ACENAPHTHYLENE	1.4	2000	510	ug/L ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	9.2 U 9.2 U	9.7 U 9.7 U*	NA NA	NA NA	NA NA
	ANTHRACENE	0.2	0.2	5100	ug/L	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA NA	9.2 U	9.7 U	NA.	NA NA	NA.							
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA.							
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA							
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA							
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA.							
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	65	ug/L ug/L	0.5 U 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA NA	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	9.2 U 9.2 U	9.7 U 9.7 U	NA NA	NA NA	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA.	NA NA	NA.	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA NA	9.2 U	9.7 U	NA NA	NA NA	NA NA				
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA							
	FLUORENE	0.5	1000		ug/L	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA							
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA							
	1-METHYLNAPHTHALENE				ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.78 U	0.38 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA								
	2-METHYLNAPHTHALENE				ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.2 U	9.7 U	NA	NA	NA								
	NAPHTHALENE PHENANTHRENE	0.22	0.2	20 510	ug/L ug/L	1 U	1 U	1 U	1 U	1 U 0.2 U	1 U	1 U	1 U 0.2 U	NA NA	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	9.2 U 9.2 U	9.7 U 9.7 U	NA NA	NA NA	NA NA
	PYRENE	0.5	1000		ug/L	0.5 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA NA	9.2 U	9.7 U	NA NA	NA NA	NA.							
	TOTAL PAHs				ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	NA	NA							
	BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	NA	NA	NA
	ETHYLBENZENE	1	700		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	NA	NA	NA
	p/m-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA .	NA	NA	NA	5 U	5 U	NA	NA	NA								
VOCs	o-XYLENE TOLUENE	1	1000	1900	ug/L ug/L	NA 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	NA NA	NA NA	NA 1 U	NA 1 U	NA NA	NA NA	NA NA
	XYLENES (TOTAL)	2	10000	1500	ug/L	2 U	10	10	10	10	10	10	10	NA NA	2 U	20	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA NA	NA NA	NA NA	2 U	2 U	NA.	NA NA	NA NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA.	NA	NA .	NA	NA	NA.	NA	NA	NA	NA .	NA	NA .	NA	NA	10 U	10 U	10 U	NA	NA	10 U	NA	NA	NA	10 U	10 U	NA	NA NA	NA .
	TOTAL BTEX				ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	NA	NA							
	ARSENIC	0.018	0.018	0.018	mg/L	0.0137	0.018	0.01 U	0.01 U	0.01 U	0.015	0.01 U	0.011	NA	0.015	0.015	0.01	0.011	0.016	0.01 U	0.02 U	0.02 U	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U				
	BERYLLIUM		0.004		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	GALCIUM METAL		0.005		mg/L	0.005 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA									
	CHROMIUM	0.013	0.1		mg/L	0.01 U	NA NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA NA	NA NA	NA NA	0.01 U	0.01 U	NA.	NA NA	NA NA							
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.0071	0.0063 U	0.005 U	0.005 U	0.015	0.043	0.012	NA	0.005 U	0.005 U	0.084	0.0085	0.21	0.011	0.005 U	0.005 U	0.13	0.014	0.01 U	0.01 U	0.013	0.28	0.013	0.031	0.021	0.033	0.01 U	0.011
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	MERCURY		0.002		mg/L	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	NICKEL	0.13	0.1	2	mg/L	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.0063	0.04 U	0.04 U	0.04 U	0.04 U							
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA										
	SODIUM	0.96	2	31	mg/L mg/L	NA 0.0429	NA 0.021	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.054	NA 0.02 U	NA NA	NA 0.029	NA 0.033	NA 0.064	NA 0.045	NA 0.24	NA 0.041	NA 0.02 U	NA 0.02 U	NA 0.061	NA 0.02 U	NA 0.029	NA 0.02 U	NA NA	NA NA	NA NA	NA 0.047	NA 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U
	ARSENIC	0.018	0.018	0.018	mg/L	NA NA	NA NA	0.02 U	0.02 U	NA	0.02 U	NA NA	0.02 U	0.01 U	NA	NA NA	NA	NA	NA	NA	NA	NA NA	0.001 0.01 U	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA	NA NA	NA NA
	BERYLLIUM		0.004		mg/L	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA.							
	CADMIUM		0.005		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.05	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
-	ZINC ALKALINITY	0.96	2	31	mg/L mg/L	NA NA	NA NA	0.021 U NA	0.022 U NA	NA NA	NA NA	0.051 NA	NA NA	0.11 NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.02 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.						
	AMMONIA AS N	15	30	30	mg/L	NA.	5.5	3.7	5.9	4.2	4	0.92	5.6	NA NA	8.9	8.9	0.046	4.1	0.18	4.3	1.8	3.9	1.8	1.6	1.4	2.6	NA NA	1.1	1.9	1.7	1.9	2	2.7	2.7
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .										
Miscellaneous	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
wiscellaneous	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	0.21	0.05 U	0.05 U	0.05 U										
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U										
	SULFATE				mg/L	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA
SVOCs	SOLIDS, TOTAL DISSOLVED 1,4-DICHLOROBENZENE				mg/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 1 U	NA 1 U	NA NA	NA NA	NA NA										
	1			1																						لــــــا	•							

Note:

Shaded cell indicates comparison standard used in data evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Rick tent indicates analytical result exceeds background value.

Bold and Rick tent indicates analytical result exceeds background value.

In Vitrate comparison standard based on the Maximum Containmant Level (MCL) stabilished by the USEPA National Primary C

No. No constituents detected above the laboratory infirmum detection limit.

J. Indicates constituent was not detected above value show.

J. Indicates constituent was not detected at an estimated value.

Maniforming with SMM-3B, PDMM-3B, PDMM-3B, PDMM-1TB, PDMM-1TB, PDMM-3TB, P

					Location:								PDM\	/-14T													PDMW	/-14TR					
			Sa	imple Date:	10/31/1997	8/10/1999	11/16/1999	2/24/2000	5/16/2000	8/22/2000	1/10/2001	7/10/2001	9/13	/2002	2/4/2003	6/24/2003	1/27/2004	7/23/2004	3/9/2006	10/7/2008	4/4/2008	7/20/	2008	12/5/2009	3/23/2010	6/16/2010	9/14/	2010	12/15	5/2010	6/17/2011	12/7/2011	
				Sa	mple Type:	Normal	Dup	Normal	Dup	Normal	Normal	Normal	Normal	Dup	Normal	Dup	Normal	Normal															
					Sample ID:	PDMW- 14T_10/31/1	PDMW- 14T_8/10/19	PDMW- 14T_11/16/1	PDMW- 14T_2/24/20	PDMW- 14T_5/16/20	PDMW- 14T_8/22/20	PDMW- 14T_1/10/20	PDMW- 14T_7/10/20	PDMW- 14T_9/13/20	PDMW-14T (DUP)_9/13/	PDMW- 14T_2/4/200	PDMW- 14T_6/24/20	PDMW- 14T_1/27/20	PDMW- 14T_7/23/20	PDMW- 14T_3/9/200	PDMW- 14T_10/7/20	PDMW- 14TR_4/4/20	PDMW- 14TR_7/20/2	PDMW- 14TR-	PDMW- 14TR_12/5/2	PDMW- 14TR_3/23/2	PDMW- 14TR_6/16/2	PDMW- 14TR_9/14/2	PDMW- 14TRDUP_9/	PDMW- 14TR_12/15/	PDMW- 14TRDUP2_	PDMW- 14TR_06171	PDMW- 14TR_12072
						997	99	999	00	00	00	01	01	02	2002	3	03	04	04	6	08	08	008	DUP_7/20/20 08	009	010	010	010	14/2010	2010	12/15/2010	1	011
Method Group	Analyte	Background	Type 3 RRS	Type 4 R	RS Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result									
	ACENAPHTHENE	1	2000		ug/L	380	270 D	330	240	210	440	520	450 D	290	220	290	310	300	130	83	93	97	110 J	67 J	58	45	24	5.9	7	45	93	57	110
	ACENAPHTHYLENE ANTHRACENE	0.2	0.2	510 5100		170 32	80 D 15 D	98 17	24 10	52 13	100 24	100 48	20 25	20 U	20 U	20 U	20 U	20 U	8 U 40	2.9	3 14	2.1	2.6 J 19 J	1.9 U 8.8 J	1.2 2.6	1.9 U 3.4	0.95 U	4.5 0.2 U	1.9 0.19 U	1.9 U 3.9	9.5 U 9.5 U	1.9 U 5.6 J	20 U
	BENZO(A)ANTHRACENE	0.2	0.1	3.9		10 U	0.21	8 U	2 U	10 U	2 U	20 U	2 U	20 U	20 U	20 U	20 U	20 U	8.1	2.8	1.9 U	1.9 U	4.5 J	1.9 U	0.97 U	1.9 U	0.95 U	0.57	0.52	1.9 U	9.5 U	1.9 LU	20 U
	BENZO(A)PYRENE	0.2	0.2	0.39		10 U	0.2 U	8 U	2 U	10 U	2 U	20 U	2 U	20 U	20 U	20 U	20 U	20 U	8 U	1 U	1.9 U	1.9 U	2.6 J	1.9 U	0.97 U	1.9 U	0.95 U	0.2	0.2	1.9 U	9.5 U	1.9 W	20 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	10 U	0.2 U	8 U	2 U	10 U	2 U	20 U	2 U	20 U	20 U	20 U	20 U	20 U	8 U	1 U	1.9 U	1.9 U	2.5 J	1.9 U	0.97 U	1.9 U	0.95 U	0.29	0.19	1.9 U	9.5 U	1.9 U	20 U
	BENZO(G,H,I)PERYLENE				ug/L	25 U	NA	20 U	NA	NA	NA	NA	NA	20 U	20 U	20 U	20 U	20 U	8 U	1 U	1.9 U	1.9 U	1.9 U	1.9 U	0.97 U	1.9 U	0.95 U	0.2 U	0.19 U	1.9 U	9.5 U	1.9 W	20 U
	BENZO(K)FLUORANTHENE CHRYSENE				ug/L	25 U	NA	8 U	NA	NA	NA	NA	NA	20 U	20 U	20 U	20 U	20 U	8 U	1.3	1.9 U	1.9 U	1.9 U	1.9 U	0.97 U	1.9 U	0.95 U	0.24	0.19	1.9 U	9.5 U	1.9 W	20 U
PAHs	DIBENZO(A,H)ANTHRACENE	0.2	0.2	65	ug/L	10 U 50 U	0.31 NA	8 U	2 U NA	10 U NA	2 U NA	20 U NA	2 U NA	20 U	20 U	20 U	20 U	20 U	8.6 8 U	2.7 1 U	1.9 U	1.9 U	5.5 J	1.9 U	1.1 0.97 U	1.9 U	0.95 U 0.95 U	0.65 0.2 U	0.62 0.19 U	1.9 U	9.5 U 9.5 U	1.9 W	20 U
	FLUORANTHENE	0.5	1000		ug/L	46	12	20 U	11	25 U	17	50 U	14	22	20 U	20 U	20 U	30	59	29	32	25	56 J	26 J	33	26	27	15	12	28	62	28	40
	FLUORENE	0.5	1000		ug/L	260	160 D	200	110	120	210	260	270 D	180	130	170	170	170	120	68	92	85	120 J	68 J	38	40	29	0.31	1.1	49	99	49	80
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	25 U	NA	8 U	NA	NA	NA	NA	NA	20 U	20 U	20 U	20 U	20 U	8 U	1 U	1.9 U	1.9 U	1.9 U	1.9 U	0.97 U	1.9 U	0.95 U	0.2 U	0.19 U	1.9 U	9.5 U	1.9 W	20 U
	1-METHYLNAPHTHALENE				ug/L	NA	NA	250	NA	NA	NA	NA	NA	170	130	180	190	200	61	34	8.5	6.5	5.7 J	2.5 J	8.7	8	1.9 U	0.4 U	0.38 U	11	23	13	46
	2-METHYLNAPHTHALENE	1			ug/L	NA eann	NA 2100 D	400	NA 2500 D	NA 2100 D	NA 2200	NA 2000 D	NA 2000 D	22 1500	20 U	20 U	20 U	27	100	3.2	6.3	2.8	4.6 J	1.9 U	0.97 U	1.9 U	0.95 U	0.2 U	0.19 U	3 160	9.7	3.2 J	39
	NAPHTHALENE PHENANTHRENE	0.22	0.2	20 510	ug/L ug/L	6200 360	2100 D 160 D	4200 190	2500 D 120 D	2100 D 120	3200 230	2900 D 290	3000 D 280 D	200	1400	1600	1500	1000	540 *X 230	97 67	170 8.1	74 15	5.4 J 42 J	11 J 9.1 J	17 3.3	28 4.8	0.95 U 0.95 U	0.2 U 0.2 U	0.19 U 0.19 U	160	320 44	99	670 74
	PYRENE	0.5	1000		ug/L	26	5.8	20 U	5.2 J	25 U	10	50 U	5 U	20 U	20 U	20 U	20 U	20 U	33	14	20	17 J	36 J	14 J	16	16	9.8	10	8.2	16	33	19	25
	TOTAL PAHs				ug/L	7474	2803.32	5685	3020.2	2615	4231	4118	4059	2384	2020	2380	2340	1928	1329.7	419.9	446.9	335.4	416.4	206.4	178.9	171.2	91.4	37.66	31.92	331.9	683.7	294.8	1084
	BENZENE	1	5	31.2	ug/L	120	110	69	57	44	29	86	120	35	30	49	47 D	110 D	7.1	3.2	3.4	3.2	1 U	1 U	1	NA	1 U	NA	NA	NA	NA	2	NA
	ETHYLBENZENE	1	700		ug/L	28	33	25	20	22	19	30	29	12	9.4	8.9	9.4	25	5.2	5	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	NA	NA	1 U	NA
	p/m-XYLENE				ug/L	NA	40	15	31	34	18	37	21	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA
VOCs	METHYLENE CHLORIDE o-XYLENE				ug/L ug/L	NA NA	25 U 30	NA 35	NA 56	NA 50	NA 14	NA 34	NA 33	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	TOLUENE	1	1000	1900	_	24	26	12	15	11	4.5	23	31	6.8	5.8	5.6	5.6	20	4.6	1.2	1 U	1 U	1 U	1 U	1 U	NA NA	1 U	NA NA	NA NA	NA NA	NA NA	1 U	NA
	XYLENES (TOTAL)	2	10000		ug/L	250	70	50	87	84	32	71	54	48	40	54	43	54	12	4.3	3.6	5.4	2 U	2 U	3.7	NA	2 U	NA	NA	NA	NA	4	NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	10 U	10 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	422	239	156	179	161	84.5	210	234	101.8	85.2	117.5	105	209	28.9	13.7	7	8.6	ND	ND	4.7	NA	ND	NA	NA	NA	NA	6	NA
	ARSENIC	0.018	0.018	0.018	_	0.0108	0.013	0.01 U	0.01	0.01 U	0.013	0.01 U	0.01 U	0.016	0.014	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	NA	0.02 U	NA	NA	NA	NA	NA	NA
	BERYLLIUM BORON		0.004		mg/L	0.005 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA								
	CADMIUM		0.005		mg/L	0.005 U	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA				
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.011	0.014	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	NA	NA	NA	NA	NA	NA									
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.0057	0.005 U	0.005 U	0.005 U	0.0057	0.019	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	NA	0.01 U	NA	NA	NA	NA	0.01 U	NA								
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	MERCURY NICKEL	0.13	0.002	2	mg/L	0.0002 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	NA 0.04 U	0.04 U	NA 0.04 U	NA 0.04 U	0.04 U	NA 0.04 U	NA NA	0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	POTASSIUM				mg/L	NA NA	NA .	NA NA	NA.	NA.	NA NA	NA	NA.	NA NA	NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA				
	SODIUM				mg/L	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC	0.96	2	31	mg/L	0.02 U	0.021	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.023	0.064	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA	NA	NA	NA	NA	NA					
1	ARSENIC	0.018	0.018	0.018		NA	NA	0.01 U	0.01 U	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	BERYLLIUM CADMIUM		0.004		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA									
	CHROMIUM	0.013	0.005		mg/L mg/L	NA NA	NA NA	0.01 U	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Dissolved	LEAD	0.007	0.015	0.015		NA NA	NA NA	0.005 U	0.005 U	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u> </u>	ZINC	0.96	2	31	mg/L	NA	NA	0.02 U	0.02 U	NA	NA	0.034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	ALKALINITY, TOTAL (AS CACO3) AMMONIA AS N	15	30	30	mg/L mg/L	NA NA	NA 200	NA 240	140	NA 180	NA 370	NA 190	NA 220	NA 260	NA 250	NA 260	NA 250	NA 260	NA 72	NA 110	NA 190	NA 84	NA 5.5	NA 6.4	NA 66	NA NA	NA 56	NA NA	NA NA	NA 67	NA 61	NA 41	NA 5.9
	BICARBONATE		- 30		mg/L	NA NA	NA NA	NA	NA	NA.	NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA	NA	NA.	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA
	CARBONATE				mg/L	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA.	NA	NA	NA NA	NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA .	NA				
Miscellaneous	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
	SULFATE				mg/L	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA							
SVOCs	SOLIDS, TOTAL DISSOLVED 1,4-DICHLOROBENZENE				mg/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA									
L	1			1	1		1		1	1																							

Notes:

Shaded cell indicates comparison standard used in data evaluation.

rightighted cell indicates analytical result exceeds comparison criteria.

Bold and fault tent indicates analytical result exceeds background value.

In Nara comparison standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above the laboratory minimum detection limit.

I. Indicates constituent was not detected above value shown.

I. Indicates constituent was not detected at an estimated value.

Monitoring will a MW 38, POMMY 48, POMMY 488, POMMY 118, POMMY 14TR, POMMY 23R, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 319, POMMY 318, POMMY 318,

				Locat	tion:												PDMW	/-15T																		PDM\	W-16T					
				Sample D)ate: 10	0/27/1997	8/9/1999	11/16/1999	9 2/25/2000	5/15/200	00 8/21/2000	1/9/2001	7/10/2001	9/12/2002	2/5/2003	6/24/2003	1/27/2004	7/20/2004	3/5/200	6 4	1/3/2008	7/19/2008	10/7/2008	12/4/2009	6/16/2010	12/16/2010	6/15/2011	12/5/2011	10/3	1/1997 8	10/1999 1	1/16/1999	2/24/2000	5/16/2000	8/21/2000	1/9/2001	7/10/2001	2/5/2002	9/12/2002	2/4/2003	6/24/2003	1/27/2004 7/20/2004
				Sample T	ype: I	Normal	Normal	Normal	Normal	Normal	al Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Norma	1 1	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup No	ormal I	lormal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Normal
						PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	/- PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-		DMW-15T	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-15T- D	UP-01- PI	MW- I	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PDMW-
				Sample	e ID: 15	997	15T_8/9/199 9	999 999	1 15T_2/25/20 00	0 15T_5/15/ 00	5/20 15T_8/21/2 00	15T_1/9/200 1	15T_7/10/20 01	15T_9/12/20 02	15T_2/5/200 1	15T_6/24/20 03	15T_1/27/20 04	15T_7/20/20 04	Filtered_3/5 Un /2006	/5/2006 15	T_4/3/200 1	15T_7/19/20 08	15T_10/7/20 08	15T_12/4/20 15 09	5T_6/16/20 10	15T_12/16/2 010	15T_061511	12052011 12	000044	10/31/1 16	7_8/10/19 11 99	6T_11/16/1 999	16T_2/24/20 1 00	6T_5/16/20 00	16T_8/21/20 00	16T_1/9/200 1	16T_7/10/20 01	16T_2/5/200 2	16T_9/12/20 02	16T_2/4/200 3	16T_6/24/20 03	16T_1/27/20 16T_7/20/2 04 04
Method Gro	o Analyte	Background Type	3 RRS Ty	pe 4 RRS U	nits	Result	Result	Result	Result	Result	t Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result F	lesult R	sult	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Result
	ACENAPHTHENE	1 2	2000	u	g/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.26	0.28	0.2 U	0.51	0.98 U	0.96 U	16	5.5	19 U	2.1	1.3	NA	NA	NA .	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	0.38	0.2 U	0.32 0.71
	ACENAPHTHYLENE	1.4	1	510 u	g/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.98 U	0.96 U	2 U	0.19 U	19 U	1.9 U	0.19 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	2.6	1 U	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	ANTHRACENE		0.2	5100 u	_	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U		0.96 U	2 U	0.19 U	19 U		0.19 U	NA	NA				0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.25	0.2 U	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	BENZO(A)ANTHRACENE	+	0.1	3.9 u	_	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U			2 U	0.19 U	19 U		0.19 U	NA	NA				0.49 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	BENZO(A)PYRENE	+	0.2	0.39 u	_	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	1 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U		0.96 U 0.96 U	2 U	0.19 U 0.19 U	19 U		0.19 U 0.19 U	NA NA	NA NA				0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	NA NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U 0.2 U 0.2 U
	BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE	0.2	0.2	0.65	_	0.2 U	NA	0.2 U 0.5 U	0.2 U NA	NA	NA	0.2 U NA	0.2 U NA	10	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U			2 U	0.19 U	19 U		0.19 U	NA NA	NA NA			.2 U	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	NA	NA	NA NA	10	0.2 U	0.2 U	0.2 U 0.2 U
	BENZO(K)FLUORANTHENE			u	_	0.5 U	NA NA	0.2 U	NA.	NA NA	NA NA	NA NA	NA NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U			2 U	0.19 U	19 U		0.19 U	NA NA	NA NA			.5 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	10	0.2 U	0.2 U	0.2 U 0.2 U
	CHRYSENE	0.2	0.2	65 u	g/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.98 U		2 U	0.19 U	19 U		0.19 U	NA	NA				0.78	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
PAHs	DIBENZO(A,H)ANTHRACENE	**	0.3	u	g/L	1 U	NA	0.2 U	NA.	NA	NA.	NA	NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.98 U	0.96 U	2 U	0.19 U	19 U	1.9 U	0.19 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	FLUORANTHENE	0.5 1	1000	u	g/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.98 U	0.96 U	2 U	0.19 U	19 U	1.9 U	0.19 U	NA	NA	NA	NA (.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	FLUORENE	0.5 1	1000	u	g/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.98 U	0.96 U	8.7	3.1	19 U	1.9 U	0.7	NA	NA	NA	NA (.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	1 U	0.2	0.2 U	0.25 0.2 U
	INDENO(1,2,3-CD)PYRENE		0.4	u	_	0.5 U	NA	0.2 U	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U			2 U	0.19 U	19 U		0.19 U	NA	NA			.5 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U 0.2 U
	1-METHYLNAPHTHALENE			u	g/L	NA	NA NA	1 U	NA NA	NA NA		NA NA	NA NA	10	0.2 U	0.2 U	0.2 U	0.2 U			2 U	0.19 U	19 U		0.38 U	NA NA	NA NA			NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	3.2	0.78	0.3	2.4 0.2 U
	2-METHYLNAPHTHALENE NAPHTHALENE	1	20	u	g/L	NA 1 U	NA 1 U	1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	1 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U			2 U	0.19 U 0.19 U	19 U		0.19 U 0.19 U	NA NA	NA NA			NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	1 U	0.2 U 0.26	0.2 U	0.2 U 0.2 U 0.2 U 0.2 U
	PHENANTHRENE		0.2	510 u	g/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	_	0.2 U	0.2 U	10	0.2 U	0.2 U	0.2 0	0.2 U			2 U	0.19 U	19 U		0.19 U	NA NA	NA NA				0.41 J	0.6	0.2 U	0.2 U	0.2 U	0.22	0.2 U	NA NA	10	0.26 0.2 U	0.2 U	0.2 U 0.2 U
	PYRENE		1000	u	_	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U			2 U	0.19 U	19 U		0.19 U	NA NA	NA NA	-			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA NA	1 U	0.2 U	0.2 U	0.21 0.2 U
	TOTAL PAHs			u	g/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26	0.28	0.21	0.51	ND	ND	24.7	8.6	ND	2.1	2	NA	NA	NA	NA	ND	1.68	0.6	ND	ND	ND	3.07	ND	NA	3.2	1.62	0.3	3.66 0.71
	BENZENE	1	5	31.2 u	g/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	7.8	6.9	11	3.9	1 U	8.4	8.8	8.2	NA	9.1	1.6	15	10 10
	ETHYLBENZENE	1 7	700	u	g/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1.8	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1U 1U
	p/m-XYLENE			u	g/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA NA
	METHYLENE CHLORIDE			u	g/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA
VOCs	o-XYLENE			u	g/L	NA	1 U	10	1 U	1 U		1 U	10	NA	NA	NA	NA	NA	NA NA	NA 1 U	NA 1 U	NA	NA 1 U	NA	NA	NA NA	NA NA			NA .	1 U	1 U	1.2	10	1 U	1 U	10	NA NA	NA 1 U	NA	NA 1 U	NA NA
	TOLUENE XYLENES (TOTAL)		0000	1900 u	g/L	1 U 2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 2 U	1 U	NA NA		2 U	1 U 2 U	1 U	1 U 2 U	1 U 2 U	NA NA	NA NA			2.2	1 U	1 U	1.6	10	1 U	1 U	1 U	NA NA	1 U	1 U	1 U 2 U	1 U 1 U 2 U
	METHYL TERT BUTYL ETHER			u	g/L g/L	NA.	NA NA	NA.	NA.	NA.	_	NA NA	10 U	10 U	10 U	NA NA	NA NA	10 U	NA NA	NA NA			NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA							
	TOTAL BTEX			u	g/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	22	6.9	11	8.5	ND	8.4	8.8	8.2	NA	9.1	1.6	15	ND ND
	ARSENIC	0.018 0.	.018	0.018 m	g/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	J 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	NA	NA	NA	NA 0	01 U	0.011	0.01 U	0.01 U	0.01 U	0.013	0.01 U	0.023	NA	0.014	0.01 U	0.011	0.01 U 0.01 U
	BERYLLIUM	0.	1.004	m	g/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA 0.	005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	BORON	**		m	g/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	CADMIUM	0.	1.005	m	_	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	CALCIUM METAL			m		NA	NA	NA	NA	NA	NA .	NA		NA	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA							
Metals, Total	LEAD		0.1	0.015 m	_	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U		0.01 U 0.005 U	0.01 U 0.011			0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U		0.01 U 0.01 U	NA NA	NA NA			_	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.016	NA NA	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.006	0.01 U 0.01 U 0.005 U 0.005 U					
	MAGNESIUM			m	g/L	NA.	NA	NA.	NA.	NA	NA NA	NA	NA	NA.	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA .	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA				
	MERCURY	0.	1.002	m	g/L (0.0002 U	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA NA	NA 0.0	1002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA							
	NICKEL	0.13	0.1	2 m	g/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	J 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA 0	04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U 0.04 U
	POTASSIUM			m	g/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	SODIUM			m	g/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
-	ZINC	0.96	2	31 m	_	0.02 U	0.02 U	0.02 U	0.13	0.034	_	0.028	0.02 U	0.02 U	0.052	0.02 U	0.02 U	0.027			0.02 U	0.02 U	0.02 U		0.02 U	NA	NA				0.021	0.02 U	0.078	0.06	0.02 U	0.12	0.051	NA	0.045	0.038	0.02 U	0.91 0.02 U
	ARSENIC BERYLLIUM		1.018	0.018 m	_	NA NA	NA NA	0.01 U NA	0.01 U NA	NA NA		NA NA	0.01 U NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	0.01 U NA	0.01 U NA	NA NA	0.01 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA						
	GADMIUM		1.004	m		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	-		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CHROMIUM		0.1	m	-	NA.	NA NA	0.01 U		NA NA		NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	0.01 U		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA .	NA NA	0.01 U	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Dissolved	LEAD			0.015 m	g/L	NA	NA	0.005 U				NA	0.005 U		NA	NA	NA	NA	NA	NA	NA					0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA NA						
	MERCURY	0.	1.002	m	g/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	NICKEL	0.13	0.1	2 m	g/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	ZING	0.96	2	31 m	_	NA	NA	0.02 U	_	0.02 U		0.02 U	NA	NA	NA	NA	NA	NA	0.02 U		NA	NA	NA	NA	NA	NA	NA				NA	0.02 U	0.089	0.065	NA	0.11	NA	0.3	NA	NA	NA	NA NA
	ALKALINITY			m	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .		NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	ALKALINITY, TOTAL (AS CACO3) AMMONIA AS N	15	30		_	NA NA	NA 61	NA 60	NA 7.2	NA 71		NA 4.2	NA 18	NA 97	NA 61	NA 6.2	NA 7	NA 74	NA NA		NA 84	NA 85	NA 76	NA 39	NA 40	NA 51	NA 33				710	NA 0.88	NA 110	NA 440	NA 3.7	NA 130	NA 560	NA NA	NA 430	NA 71	NA 380	NA NA 12 100
	BICARBONATE			m	_	NA NA	NA	NA.	NA	NA	_	NA	NA NA	NA	NA	NA	NA	NA	NA NA		NA	NA	NA	NA NA	NA	NA NA	NA				NA NA	0.88 NA	NA NA	NA	NA	NA	NA NA	NA NA	NA	NA NA	NA	12 700 NA NA
	CARBONATE			m	_	NA NA	NA NA	NA.	NA NA	NA NA		NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA		NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA				NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Miscellaneous	CONDUCTIVITY			um		NA	NA	NA	NA	NA		NA	NA NA		NA	NA	NA	NA	NA	NA	NA	-			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA						
	NITRATE (AS N)		10	m	g/L	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA						
	NITRITE (AS N)			m	ng/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA
	SULFATE]	m	_	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA							
	SOLIDS, TOTAL DISSOLVED			m	_	NA	NA	NA	NA	NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA							
SVOCs	1,4-DICHLOROBENZENE			u	g/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA

Note:

Shaded cell indicates comparison standard used in date evaluation.

"ghlighted cell indicates analytical result exceeds comparison criteria.

Bold and Rack test indicates analytical result exceeds background value.

For Nitrate comparison standard based on the Maximum Containant Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above the laboratory minimum detection limit.

1. Indicates constituent was not detected above value shows.

1. Indicates constituent was not detected at an estimated value.

1. Indicates constituent was not detected at an estimated value.

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1. Indicates constituent was not detected at an estimated value.

1. Indicates constituent was not detected at an estimated value.

Fig. 14 Fig. 14 Fig. 15 Fig.					Lo	ocation:												PDMW-17T																		PDM	W-18T						
The Note 1					Samp	le Date:	10/29/1997	8/9/1999	11/18/1999	2/25/2000	5/15/2000	8/21/2000	1/9/2001	7/12/2001	9/13/2002	2/4/2003	6/24/2003	1/29/2004	7/20/2004	3/6/2006	4/3/2008	7/20/2008	10/6/	2008	12/4/2009	6/19/2010	12/14/2010	6/15/2011	12/7/2011	10/27/1997	8/9/1999	11/17/1999	2/25/2000	5/15/2000	8/21/2000	1/9/2001	7/10/2001	2/4/2002	9/12/2002	2/5/2003	6/25/2003	1/30/2004	7/21/2004
Thi state Thi					Samp	le Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
The column					Sar	mple ID: 1	PDMW- 17T 10/29/1	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- 0 17T 8/21/20	PDMW- 17T 1/9/200	PDMW- 17T 7/12/20	PDMW- 17T 9/13/20	PDMW-	PDMW- 17T 6/24/20	PDMW-	PDMW-	PDMW-	PDMW- 17T 4/3/200	PDMW- 17T 7/20/20	PDMW- 17T 10/6/20	PDMW-17T-	PDMW- 17T 12/4/20	PDMW- 17T 6/19/20	PDMW-			PDMW- 18T 10/27/1	PDMW- 18T 8/9/199 1	PDMW-	PDMW- 8T 2/25/20	PDMW- 18T 5/15/20	PDMW- 18T 8/21/20	PDMW- 18T 1/9/200	PDMW- 18T 7/10/2	PDMW-	PDMW-	PDMW-	PDMW- 18T 6/25/20	PDMW- 18T 1/30/20	PDMW- 18T 7/21/20
94 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							997	9		00	00	00	1	01	02	3	03	04	04	6	8	08	08	08	09	10	010	17T_061511	11	997	9	999	00	00	00	1	01	2	02	3	03	04	04
	Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Mathematical all all all all all all all all all		ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1.3 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U		0.19 U	0.19 U	0.19 U	0.19 J	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
			+	1		ug/L			+							-																							_				_
			1			ug/L			-	_									1	1																			_				
			1			ug/L													1	1																		+	_				
			+			ug/L		_	+	_	+	_		-		-					!		_														_		_			-	_
March Marc		BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U
		BENZO(K)FLUORANTHENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U
		CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA		NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
Section Sect	PAHs					ug/L								!			-																						_			-	1
			1			ug/L		+	-	+	+	+		_			-				1				-													+	+			1	
			0.5			ug/L		-	+	+	+		_	-									_		-													+	_				
						ug/L															!																	-					
		2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA.	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	0.2 U	0.2 U	0.2 U	0.2 U
94. 14. 14. 14. 14. 14. 14. 14. 14. 14. 1		NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1.3 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U
			+		510	ug/L			+	_	+					-					!		_																_				_
			0.5	1000		ug/L		+	+	-	+	+		-		-							_															+	-			l	
					31.2	ug/L		-	+		+			!		!	!				!		_		!													-	_			1	
Mathematical and the part of			1		31.2	ug/L		-	+	-	+		-	-							-				-													+	_	_			-
Mathematical and the properties of the propert						ug/L		-	+	+	+		_	-							-				-													+	-	+			
		METHYLENE CHLORIDE				ug/L	NA	5 U	+	-	+		-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA					NA		_	NA	NA	NA	NA	NA	NA
	VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA.	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA
		TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 W	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
			2	10000		ug/L														1																							
						ug/L				+	 					ļ	!						_									+							_				
			0.018	0.018	0.018	mg/L				+										1																							
						mg/L				_						-	-			1																			_				NA.
Marcha M		BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.
		CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Final and transform		CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
						mg/L		-	+	+	+		_	_							-		-		-														_	+			
Marcha M	Metals, Total		0.007	0.015	0.015	mg/L			+				!	!											!													-	_			-	1
				0.002		mg/L		-	-		+		 	 							<u> </u>				<u> </u>													-	1			1	
			0.13		2	mg/L			-	+	 		ļ	_		1					-				<u> </u>														1				
日本		POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		ZINC	+		31	mg/L			+	_	+					-	-			1																			_				_
Maria Mari			0.018		0.018				+		 			!		!	!		-		!		_		!							+						-	_			1	
								+	+	_	+	+		-		-	-						_															+	-				
Marita M			0.013						+	_	+			-			!								!													-	_			-	
MICHINE MICH	Metals, Dissolved		-		0.015	-		-	+	_	+	_	-	-							-				-					_								+	_	_			
Section Sect		MERCURY				-	NA	NA	-	-	+	+	-	-							-				NA		NA											+	_		NA	NA	
ALFALISITY		NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALMARINTY, TOTAL (AS CACCO)			0.96	2	31	mg/L	NA	NA		0.03		NA	-	NA	NA		NA		NA	NA				NA	NA	NA	NA			NA	NA			NA	0.13	0.037	NA	0.031	NA		NA	NA	
AMACHIA AS N 15 30 30 mgl 60 73 54 29 3.7 65 11 39 47 29 3.7 65 11 39 47 29 3.8 30 50 50 50 50 50 50 50 50 50 50 50 50 50						+-+		+	+	+						-	-																						-			l	_
BICARBONATE III		, , , , , , , , , , , , ,									_	_																										+				1	
ABSCRIBATE			15	30	30	-							_							1																			_			1	_
CADICITITY									+	_						-	-																						_				_
NITRATE (AS N) 10 mgL NA	Miscellaneous					umhos/		+	-	+	+	+	-	1		-	-						_		1													+	-	+		1	
SUBSTITUTE OF THE STREET OF TH		NITRATE (AS N)		10				NA	NA	NA.				!	NA	NA	-			NA					NA		NA			NA		NA				NA	NA		_	NA	NA	NA	NA
SCLIDS, TOTAL DISSOLVED mgL NA		NITRITE (AS N)				-	NA	NA	NA	NA.	+	NA	NA	-	NA	NA		NA	NA	NA	-	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA			NA	NA	NA		NA.	NA	NA	NA	NA
		SULFATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EVOCS: [1,4-DICHLORGBER/ZENE]												_																															
	SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cell indicates comparison standard used in data evaluation.

wighlighted cell indicates analytical result exceeds comparison criteria.

Bold and fault test indicates analytical result exceeds background value.

Bold southeast indicates analytical result exceeds background value.

No - No constitutions to standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

No - No constitutes detected above the labora tory minimum detection limit.

J. Indicates constituent was not detected above value shown.

J. Indicates constituent was not detected at an estimated value.

U.I. Indicates constituent was not detected at an estimated value.

Monitoring wells, MMV-31, POMMV-81, POMMV-101, POMMV-111, POMMV-111, POMMV-313, POMMV-310, POMMV-313, POMMV-311, POMMV-3111, POMMV-3111, POMMV-311, POMMV-311, POMMV-3111, POMMV-3111, POMMV-3111, POMMV-3111, POM

				Lo	cation:														PDMW-19P													
				Sampl	le Date:	10/27/1997	8/9/1999	11/17/1999	2/25/2000	5/15/2000	8/21/2000	1/9/2001	7/12/2001	9/13/2002	2/5/2003	6/24/2003	1/29/2004	7/21/2004	3/7/2006	4/4/	2008	7/19/2008	10/8/2008	12/5/2009	6/19/2010	6/17/2011	12/13	3/2013	6/4/2014	11/3/2014	5/20/2015	11/12/2015
				Sampl	e Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal
				San	nple ID:	PDMW- 19P_10/27/1 997	PDMW- 19P_8/9/199 9	PDMW- 19P_11/17/1 999	PDMW- 19P_2/25/20 00	PDMW- 19P_5/15/20 00	PDMW- 19P_8/21/20 00	PDMW- 19P_1/9/200 1	PDMW- 19P_7/12/20 01	PDMW- 19P_9/13/20 02	PDMW- 19P_2/5/200 3	PDMW- 19P_6/24/20 03	PDMW- 19P_1/29/20 04	PDMW- 19P_7/21/20 04	PDMW- 19P_3/7/200 6	PDMW- 19P_4/4/200 8	PDMW-19P DUP_4/4/200 8	PDMW- 19P_7/19/20 08	PDMW- 19P_10/8/20 08	PDMW- 19P_12/5/20 09	PDMW- 19P_6/19/20 10	PDMW- 19P_061711	PDMW- 19P_12/13/2 013	DUP- 3_12/13/201 3	PDMW- 19P_060420 14	PDMW- 19P_110320 14	PDMW- 19P_052020 15	PDMW- 19P_111220 15
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	ACENAPHTHYLENE ANTHRACENE	0.2	0.2	510 5100	ug/L ug/L	1 U 0.2 U	1 U	1 U	1 U 0.2 U	1 U	1 U	1 U 0.2 U	1 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 LU 0.19 LU	NA NA	9.5 U 9.5 U	9.6 U 9.6 U	9.8 U 9.8 U	NA NA	NA NA	NA NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA NA	9.5 U	9.6 U	9.8 U	NA NA	NA.	NA NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	65	ug/L ug/L	0.5 U 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	NA 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 W 0.19 W	NA NA	9.5 U 9.5 U	9.6 U 9.6 U	9.8 U 9.8 U	NA NA	NA NA	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA NA	9.5 U	9.6 U	9.8 U	NA.	NA.	NA NA
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE				ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.76 U 0.19 U	0.38 LU 0.19 LU	NA NA	9.5 U 9.5 U	9.6 U 9.6 U	9.8 U 9.8 U	NA NA	NA NA	NA NA
	2-METHYLNAPHTHALENE NAPHTHALENE	1	20	20	ug/L	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.27	0.19 U 0.41	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 LU 0.19 LU	NA NA	9.5 U 9.5 U	9.6 U	9.8 U 9.8 U	NA NA	NA NA	NA NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA NA	9.5 U	9.6 U	9.8 U	NA NA	NA.	NA NA
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 LU	NA	9.5 U	9.6 U	9.8 U	NA	NA	NA
	TOTAL PAHs				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	0.41	ND	ND	ND	ND	NA	ND	ND	ND	NA	NA	NA
	BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	NA	NA
	ETHYLBENZENE p/m-XYLENE		700		ug/L ug/L	1 U	1 U	10	10	1 U	10	1 U	10	1 U NA	1 U NA	1 U	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U	NA NA	1 U NA	1 U NA	1 U NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE				ug/L	NA NA	1 U	1 U NA	1 U NA	NA NA	1 U NA	NA NA	1 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U	5 U	NA NA	NA NA	NA NA	NA NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	NA	NA	NA
	METHYL TERT BUTYL ETHER	**			ug/L	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	NA	10 U	10 U	NA	NA	NA	NA
	TOTAL BTEX ARSENIC	0.018	0.018	0.018	ug/L mg/L	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.01 U	ND 0.02 U	ND 0.02 U	NA NA	ND 0.02 U	ND 0.02 U	ND 0.02 U	NA 0.02 U	NA 0.02 U	NA 0.02 U
	BERYLLIUM	0.018	0.018	0.018	mg/L	0.005 U	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA.	NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	0.02 U	0.02 U	NA NA	NA	0.02 U	NA	0.02 U	NA NA	0.02 U
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	NA	NA	NA .
Metals, Total	LEAD MAGNESIUM	0.007	0.015	0.015	mg/L mg/L	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.01 U NA	0.01 U NA	NA NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA
	MERCURY		0.002		mg/L	0.0002 U	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC ARSENIC	0.96	0.018	0.018	mg/L mg/L	0.02 U NA	0.02 U NA	0.02 U 0.01 U	0.02 U 0.01 U	0.14 NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.028 NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	0.02 U NA	NA NA	0.02 U NA	0.02 U NA	0.02 U NA	NA NA	NA NA	NA NA
	BERYLLIUM		0.018		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM		0.005		mg/L	NA	NA	NA.	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA	NA	NA	NA NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
motors, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL ZINC	0.13	0.1	2	mg/L mg/L	NA NA	NA NA	0.04 U 0.02 U	0.04 U 0.02 U	0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY				mg/L	NA NA	NA NA	NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	NA	5.3	12	2.4	6	9.6	4.1	5.9	3.2	3.6	5.1	1.9	5	3	2.8 J	1.7 J	2.2	5.8	1.8	4.9 J	3.9	4	4	5.6	4.5	4.7	4.9
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L umhos/	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY NITRATE (AS N)		10		cm	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.05 U	NA 0.05 U	NA 0.05 U	NA 0.05 U	NA 0.05 U	NA 0.05.11
	NITHATE (AS N) NITRITE (AS N)				mg/L mg/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.05 U	0.05 U NA	0.05 U NA	0.05 U NA	0.05 U	0.05 U 0.05 U
	SULFATE				mg/L	NA	NA	NA	NA	NA NA	NA	NA NA	NA.	NA	NA NA	NA	NA	NA NA	NA	NA	NA	NA.	NA NA	NA NA	NA NA	NA NA	NA	NA	NA.	NA	NA.	NA NA
	SOLIDS, TOTAL DISSOLVED				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA
Notes:																																

Notes:

Shaded cell indicates comparison standard used in data evaluation.

Job and million of the cell indicates analytical result exceeds comparison criteria.

Bold and Rolls test indicates analytical result exceeds background value.

A Nitrate comparison standard based on the Maximum Containant state (MCL) established by the USEPA National Primary C
NO - No constituents detected above the laboratory indirum detection limit.

J: Indicates constituent was not detected above value below.

J: Indicates constituent was not detected at an estimated value.

Monitoring mills AMV 3R, PDMW 4R, PDMM 10R, PDMM 11R, PDMM 14TR, PDMM 2TR, PDMM 3TR, PDMM 3TR, PDMM 3TR, PDMM 3TR, PDMM 4TR, PDMM 11R, P

				L	ocation:												PDM	W-20T											
				Samp	_	10/29/1997	8/10/1999	11/17/1999	2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001	2/7/2002	9/10/2002	2/6/2003	6/26/2003	1/27/2004	7/21/2004	3/7/2006	4/1/2008	7/18/2008	10/8	/2008	12/7/2009	6/19/2010	12/16/2010	6/16/2011	12/8/2011
				Samp	le Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal
				Sai	mple ID:	PDMW- 20T_10/29/1 997	PDMW- 20T_8/10/19 99	PDMW- 20T_11/17/1 999	PDMW- 20T_2/23/20 00	PDMW- 20T_5/16/20 00	PDMW- 20T_8/22/20 00	PDMW- 20T_1/10/20 01	PDMW- 20T_7/16/20 01	PDMW- 20T_2/7/200 2	PDMW- 20T_9/10/20 02	PDMW- 20T_2/6/200 3	PDMW- 20T_6/26/20 03	PDMW- 20T_1/27/20 04	PDMW- 20T_7/21/20 04	PDMW- 20T_3/7/200 6	PDMW- 20T_4/1/200 8	PDMW- 20T_7/18/20 08	PDMW- 20T_10/8/20 08	PDWM-20T- DUP_10/8/20 08	PDMW- 20T_12/7/20 09	PDMW- 20T_6/19/20 10	PDMW- 20T_12/16/2 010	PDMW-20T- 061611	PDMW- 20T_120820 11
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA
	ACENAPHTHYLENE ANTHRACENE	1.4	0.2	510 5100	ug/L	1 U 0.2 U	1 U	1 U	1 U	1 U 0.2 U	1 U	1 U	1 U 0.2 U	1 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA
	BENZO(A)ANTHRACENE	0.2	0.2	3.9	ug/L ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA.	NA NA	NA NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA
	BENZO(K)FLUORANTHENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA
L	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE FLUORANTHENE	0.5	0.3		ug/L ug/L	1 U 0.5 U	NA 0.5 U	NA 0.5 U	NA 0.5 U	0.5 U	NA 0.5 U	NA 0.5 U	0.5 U	NA 0.5 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA
	FLUORENE	0.5	1000		ug/L ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA NA
	1-METHYLNAPHTHALENE				ug/L	NA.	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.76 U	0.38 UJ	NA	NA	NA
	2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 W	NA	NA	NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA
	PYRENE TOTAL PAHs	0.5	1000		ug/L	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.5 U ND	0.2 U ND	0.2 U ND	0.2 U ND	0.2 U ND	0.2 U ND	0.19 U ND	0.19 U ND	0.19 U ND	0.19 U ND	0.19 U ND	0.19 U ND	0.19 U ND	NA NA	NA NA	NA NA
	BENZENE	1	5	31.2	ug/L ug/L	8.7	1 U	4	1.1	1 U	1.3	1 U	1 U	1.2	1 U	1 U	1 U	1 U	1 U	3.2	2.3	1 U	1 U	1 U	1 U	1 U	NA NA	NA NA	NA NA
	ETHYLBENZENE	1	700		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA.	NA	NA NA
	p/m-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA
	XYLENES (TOTAL) METHYL TERT BUTYL ETHER	2	10000		ug/L ug/L	2 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U NA	2 U 10 U	2 U	2 U 10 U	2 U NA	2 U NA	2 U NA	2 U 10 U	NA NA	NA NA	NA NA
	TOTAL BTEX				ug/L	8.7	ND ND	4	1.1	ND ND	1.3	ND ND	ND ND	1.2	ND ND	ND ND	ND ND	ND ND	ND ND	3.2	2.3	ND ND	ND ND	ND ND	ND ND	ND ND	NA NA	NA NA	NA NA
	ARSENIC	0.018	0.018	0.018	mg/L	0.0102	0.024	0.01 U	0.013 U	0.015	0.013	0.016	0.026	0.018	0.028	0.022	0.03	0.028	0.01 U	0.013	0.014	0.018	0.025	0.024	0.02 U	0.02	0.019	0.028	0.026
	BERYLLIUM		0.004		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Total	CHROMIUM	0.013	0.1	0.015	mg/L mg/L	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.011 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.01 U	0.01 U 0.01 U	0.01 U 0.01 U	NA NA	NA NA	NA NA
motus, rotal	MAGNESIUM	0.007	0.015	0.015	mg/L	0.000 U	NA.	NA	NA	NA NA	0.005 G	0.003 G	0.003 U	NA	NA	NA	0.003 U	0.005 G	NA	NA	0.000 G	0.000 U	NA	NA.	NA NA	NA.	NA NA	NA NA	NA NA
	MERCURY		0.002		mg/L	0.0002 U	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA .	NA.	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.2	0.078	0.073	0.12	0.04 U	NA	NA	NA
	POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM				mg/L	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u> </u>	ZINC	0.96	2	31	mg/L	0.0566	0.18	0.036	0.099	0.032	0.034	0.11	0.14	0.084	0.13	0.36	0.23	0.13	0.24	0.12	0.21	2.8	0.66	0.62	1.4	0.16	NA	NA NA	NA NA
	ARSENIC BERYLLIUM	0.018	0.018	0.018	mg/L mg/L	NA NA	NA NA	0.01 U NA	0.01 U NA	0.01 NA	0.01 U NA	0.01 U NA	0.018 NA	0.01 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.018 NA	NA NA	NA NA
	CADMIUM		0.004		mg/L	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Martin Pr	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u> </u>	ZINC	0.96	2	31	mg/L	NA NA	NA	0.02 U	0.047	0.02 U	0.02 U	0.035 NA	0.12	0.039	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA	NA NA	NA NA
	ALKALINITY ALKALINITY, TOTAL (AS CACO3)				mg/L mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	AMMONIA AS N	15	30	30	mg/L	1100	370	340	330	430	400	6.9	440	1.3	3.1	340	260	250	360	760	550	220	310	310	39	230	180	260	280
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA
Minoplan	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
Miscellaneous	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SULFATE				mg/L	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOC8	SOLIDS, TOTAL DISSOLVED 1,4-DICHLOROBENZENE				mg/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	,	1	l	l	-9-					1				1				1	1				1	1	1				

Notes:

| Shaded cell indicates comparison standard used in data evaluation.
| Highlighted cell indicates analytical result receeds comparison criteria.
| Boble and Relix feet indicates analytical result exceeds background value.
| Sharts comparison standard backer on the Maximum Containment set (MCL) established by the USEPA National Primary C
NO - No constituent detected above the laboratory indirum detection limit.
| Indicates constituent was not detected above whise Johnson.
| In Indicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
| Undicates constituent was not detected at an estimated value.
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Paris					ı	Location:													PDMW-21T												
Profession Pro							10/29/1997	8/9/1999	11/17/1999	2/24/2000	5/16/2000	8/21/2000	1/9/2001	7/10/2001	2/4/2002	9/11/2002	2/6/2003	6/25/2003	1/27/2004	7/21/2004	3/6/2006	4/1/2008	7/18/2008	10/6/2008	12/4/2009	6/19	/2010	12/16/2010	6/16/	2011	12/5/2011
Profession Pro					Samp	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Dup	Normal
					Se	ample ID:	21T_10/29/1		21T_11/17/1	21T_2/24/20	21T_5/16/20	21T_8/21/20	PDMW- 21T_1/9/200 1	21T_7/10/20	21T_2/4/200	21T_9/11/20	21T_2/6/200	21T_6/25/20	21T_1/27/20	21T_7/21/20	PDMW- 21T_3/6/200 6	PDMW- 21T_4/1/200 8	21T_7/18/20	21T_10/6/20	21T_12/4/20	21T_6/19/20	21TDUP_6/1	21T_12/16/2			
	Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Marchanness										1		!							!		1	!									
		-				÷				1		!							!		-	!					-	+			+
Part						-						-							-		-						-	+			+
						-	!			1		!							!	1	1							+	!		
				0.2		_	-	0.2 U	0.2 U			-	0.2 U				0.2 U		-		0.96 U				0.19 U		-	NA	NA.	NA	_
		BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA.	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 LU	0.19 U	NA	NA	NA	NA				
Methods Meth		BENZO(K)FLUORANTHENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 W	0.19 U	NA	NA.	NA	NA				
		CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 W	0.19 U	NA	NA	NA	NA
	PAHs					ug/L	1 U		NA	NA	NA	!	NA	NA	NA	0.2 U	0.96 U	0.19 U	0.2 U	_	0.19 U	0.19 W	0.19 U	<u> </u>	NA.	NA					
Mathematical Registration						+	1					1							1	-			-				1	+			
						+	-					_							1				-				!		<u> </u>		
				0.4		+	!												-								-	<u> </u>			
		-				+	!			1									-		-	-	-					<u> </u>	!		+
Profession Pro		NAPHTHALENE	1	20	20	ug/L			1 U			-	1 U	1 U		0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 LU	0.19 UJ	+	NA	NA	+				
		PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 W	0.19 U	NA	NA	NA	NA
Mathematical angle		PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.96 U	0.19 U	0.2 U	0.19 U	0.19 U	0.19 W	0.19 U	NA	NA	NA	NA				
						_	!			1		!							!		1	!					!	<u> </u>	!		
		-			31.2	_	-					-							-		+	-					-	+	-		+
				700		+	-					-							-		-	-					-		-		+
March Marc						+	-					-							-		-	-					-		-		+
March Marc	VOCs	-			1	+	_					1							1	1	+	†					1	1	1		+-
		TOLUENE	1	1000	1900			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA.	NA	+
Process Proc		XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA.	NA	NA
Minical Region Mini		METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 U	10 U	NA	NA	NA	NA
Final Proof 1 元		TOTAL BTEX				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
			0.018		0.018	+															 							+			
Marche M				0.004		1 -	-					!							-		-	-					-		-		_
Marian M		-		0.005		1 -	!					-							-		-	-							-		
- Martine Lange and the lange						+				1		!							!		1	-					!	<u> </u>	!		+
Ministry		CHROMIUM	0.013	0.1		+	0.01 U	0.01 U	0.01 U	0.01 U		-	0.01 U	0.01 U			0.01 U	0.01 U	-		0.01 U	0.01 U			0.01 U	0.01 U	-	+	NA.	NA	+
Marchane	Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0075	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	NA	NA.	NA	NA
March Marc		MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA.	NA	NA
- Marie Probability of the proba		MERCURY		0.002		mg/L	0.0002 U	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA.	NA	NA
Part			0.13	0.1	2	_	!			1		!							!		1 1 1	-					!	<u> </u>			
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-				+-	!			1		!							!		1						!	<u> </u>	!		
ARENCE OF CIRCULATION		-	0.96	2		-						-							-		+	<u> </u>					-	1	<u> </u>		+
Particular Par						<u> </u>				1												!									
PRINCIPALISA DE LOS SERSION SOUTH STATE SERSION SOUTH SERSION SOUTH STATE SERSION SOUTH SERSION SOUTH SERSION SOUTH SERSION SOUTH SEASON SOUTH SEAS		-				+				1											+	!					-	+	!		+
ALALIENTY		CADMIUM		0.005		+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EAD	Metals, Disschart	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA
NICHEL 0.13 0.1 2 mgL NA NA 0.04 U 0.04 U NA			0.007		0.015	_	-					-							-		+	-					-	+	-		+
2NC 0.96 2 31 mgL NA NA 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.0						_	-					-							-		+	-					-	+	-		+
ALFALINITY mgL NA							_					-							1	1	1	1					1	1			+-
ALFALMITY TOTAL (AS CACCS) mg L NA						_						!							-		+	<u> </u>						<u> </u>	<u> </u>		+
AMMCMA AS N 15 30 30 mg L 570 270 240 220 220 220 220 160 220 160 220 38 160 82 4.6 170 130 140 150 150 150 150 85 85 86 86 86 86 86 86 86 86 86 86 86 86 86						+						-							-		+	1						1	<u> </u>		+
BICARBONATE mgt NA						_																									
CONDICTIVITY						mg/L		NA	NA	NA	NA		NA.	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CONDUCTIVITY	Minnelle	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE (AS N) mg I NA	misceráneous	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE mg L NA		NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SOLIDS, TOTAL DISSOLVED mg/L NA		,				_																						1			
					-	+															 						-	+			
	evoc.					_				1																		1			
	SVULS	1,4-DIORLOHOBENZENE				ug/L	ΝA	ΝA	NΑ	NA	NΑ	ΝA	ΝA	ΝA	NA.	NA.	NΑ	NΑ	ΝA	NA	NA	ΝA	NA.	NA.	NA.	NA.	NA	NA	ΝA	ΝA	rvA.

Note:

| Shaded cell indicates comparison standard used in data evaluation.
| Indignighted cell indicates analytical result exceeds comparison criteria.
| Bold and Risk feet indicates analytical result exceeds background value.
| Bold and Risk feet indicates analytical result exceeds background value.
| No -Re constituents os standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C
| NO -Re constituents detected above the laboratory minimum detection limit.
| J. Indicates constituent was not detected above value shown.
| J. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| Monitoring wells MM-38, PDMM-88, PDMM-38, PDMM-318, PDMM-3

				Locatio	n:										PDM	W-22T																	PDMW-23R						
				Sample Dat	e: 10/23/199	97 8/10/1999	11/17/1999	2/24/200	00 5/16/2000	8/22/2000	1/9/2001	7/16/2001	9/13/2002	2/5/2003	6/25/2003	1/27/2004	7/21/2004	3/5/2006	4/1/2008	7/18/2008	10/6/2008	12/2/2009	6/19/2010	12/16/2010	6/14/2011	12/5/2011	4/1/2008	7/19/2008	10/8/2008	12/2/2	2009	6/19/2010	12/15/2010	6/14/2011	12/7/2011	12/11/2013	11/5/2014	5/19/2015	11/11/2015
				Sample Typ	e: Normal	l Normal	Normal	Norma	al Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
				Sample I	PDMW- D: 22T_10/23	PDMW- 3/1 22T_8/10/1	PDMW- 22T_11/17/1	PDMW 1 22T_2/24	1/20 22T_5/16/20	PDMW- 22T_8/22/20 00	PDMW- 22T_1/9/200	PDMW- 22T_7/16/20	PDMW- 22T_9/13/20	PDMW- 22T_2/5/200	PDMW- 22T_6/25/20	PDMW- 22T_1/27/20	PDMW- 22T_7/21/20 04	PDMW- 22T_3/5/200 6	PDMW- 22T_4/1/200	PDMW- 22T_7/18/20	PDMW- 22T_10/6/20	PDMW- 22T_12/2/20 2	PDMW- 2T_6/19/20	PDMW- 22T_12/16/2	PDMW-22T- 061411	PDMW-22T- 12052011	PDMW- 23R_4/1/200 8	PDMW- 23R_7/19/20	PDMW- 23R_10/8/20	PDMW- 23R_12/2/20	PDMW-23R- DUP_12/2/20	PDMW- 23R_6/19/20	PDMW- 23R_12/15/2	PDMW-23R 061411	PDMW- 23R_120720	PDMW- 23R_12/11/2 013	PDMW- 23R_110520	PDMW- 23R_051920	PDMW- 23R_111120
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS Unit	s Result	Result	Result	Result	00 it Result	Result	Result	01 Result	02 Result	3 Result	03 Result	04 Result	Result	Result	8 Result	08 Result	08 Result	09 Result	10 Result	010 Result	Result	Result	Result	08 Result	08 Result	09 Result	09 Result	Result	010 Result	Result	11 Result	Result	Result	15 Result	15 Result
	ACENAPHTHENE	1	2000	ug/L	1 U	1 U	1 U	1 U		1 U	1 U	1 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA.	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA NA
	ACENAPHTHYLENE	1.4	1	510 ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	ANTHRACENE	0.2	0.2	5100 ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug/L	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	BENZO(A)PYRENE	0.2	0.2	0.39 ug/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug/L	0.2 U	_	0.2 U	0.2 U	-	0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE			ug/L	0.5 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	1 U	0.2 U 0.2 U	2 U	1 U	0.98 U 0.98 U	1.9 U	19 U	19 U	0.19 U 0.19 U	1.9 UJ 1.9 UJ	NA NA	NA NA	NA NA	1.9 U	1.9 U	19 U	0.19 U 0.19 U	0.19 U 0.19 U	1.9 W 1.9 W	1.9 U	0.2 U	0.19 U 0.19 U	9.2 U 9.2 U	NA NA	NA NA	NA NA
	CHRYSENE	0.2	0.2	65 ug/L	0.5 U	_	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	10	0.2 U	2 U	10	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA NA	NA NA	NA NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA NA	NA NA	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug/L	1 U	NA NA	NA.	NA.	NA NA	NA.	NA	NA NA	0.2 U	10	0.2 U	2 U	10	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA.	NA.	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA NA	NA NA	NA NA
	FLUORANTHENE	0.5	1000	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 W	NA	NA.	NA.	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA.	NA
	FLUORENE	0.5	1000	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 UJ	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	1-METHYLNAPHTHALENE			ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.8	17	2	27	6.9	16	11	94	37	16	3.8 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.76 U	0.76 U	3.8 LU	3.8 U	0.4 U	0.38 U	9.2 U	NA	NA	NA
	2-METHYLNAPHTHALENE			ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	NAPHTHALENE	1	20	20 ug/L	17	1 U	1 U	1 U		1 U	1 U	1 U	0.2 U	1 U	0.2 U	2 U	1 U	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	30	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	PHENANTHRENE	0.22	0.2	510 ug/L	0.23	_	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	10	0.98 U	1.9 U	19 U	19 U	0.19 U	1.9 UJ	NA	NA	NA	1.9 U	1.9 U	19 U	0.19 U	0.19 U	1.9 W	1.9 U	0.2 U	0.19 U	9.2 U	NA	NA	NA
	PYRENE TOTAL PAHs	0.5	1000	ug/L	0.5 U 17.23		0.5 U ND	0.5 U ND		0.5 U ND	0.5 U ND	0.5 U ND	0.2 U 0.8	1 U	0.2 U 2	2 U 27	1 U 6.9	0.98 U 16	1.9 U	19 U 94	19 U 37	0.19 U 16	1.9 UJ ND	NA NA	NA NA	NA NA	1.9 U ND	1.9 U ND	19 U 30	0.19 U ND	0.19 U ND	1.9 LU ND	1.9 U ND	0.2 U ND	0.19 U ND	9.2 U ND	NA NA	NA NA	NA NA
	BENZENE	1	5	31.2 ug/L	17.23	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	94 1 U	1 U	1 U	1 W	NA NA	NA NA	NA NA	1 U	1 U	30 1 U	1 U	1 U	1 UJ	NA.	NA NA	NA NA	1 U	NA NA	NA NA	NA NA
	ETHYLBENZENE	1	700	ug/L	1.7	1 U	1 U	1 U	_	1 U	1 U	1 U	1 U	10	1 U	1 U	10	1 U	1 U	1 U	1 U	1 U	1 W	NA	NA.	NA.	1 U	1 U	1 U	10	1 U	1 UJ	NA.	NA.	NA.	10	NA NA	NA NA	NA NA
	p/m-XYLENE			ug/L	NA	1 U	1 U	1 U	_	1 U	1 U	1 U	NA	NA	NA	NA NA	NA	NA.	NA	NA	NA	NA NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA .	NA	NA.	NA	NA	NA	NA
	METHYLENE CHLORIDE			ug/L	NA	5 U	NA	NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
VOCs	o-XYLENE			ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900 ug/L	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 W	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA	NA	1 U	NA	NA	NA
	XYLENES (TOTAL)	2	10000	ug/L	4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 W	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 UJ	NA	NA	NA	2 U	NA	NA	NA
	METHYL TERT BUTYL ETHER			ug/L	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 UJ	NA	NA	NA	10 U	10 U	NA	NA	NA	10 UJ	NA	NA	NA	10 U	NA	NA	NA
	TOTAL BTEX			ug/L	6.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA
	ARSENIC BERYLLIUM	0.018	0.018	0.018 mg/L	0.01 U		0.01 U NA	0.01 U NA	J 0.01 U	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.02 U NA	0.02 U NA	NA NA	NA NA	NA NA	0.018 NA	0.03 NA	0.038 NA	0.034 NA	0.03 NA	0.042 NA	0.025 NA	0.03 NA	0.02 NA	0.0092 NA	0.02 U	0.02 U NA	0.02 U NA
	BORON		0.004	mg/t	. NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM		0.005	·· mg/L	0.005 U		NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA.	NA.	NA NA	NA NA
	CALCIUM METAL			mg/L	. NA	NA	NA.	NA	NA.	NA.	NA	NA.	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA						
	CHROMIUM	0.013	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	J 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	0.012	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA.	NA	NA	0.0019	NA	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015 mg/L	0.005 U	0.005 U	0.005 U	0.005 L	U 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	NA	NA	NA	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U
	MAGNESIUM			mg/l	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002	mg/L	0.0002 L	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2 mg/L	0.04 U	0.04 U	0.04 U	0.04 U		0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	NA	NA	NA
	POTASSIUM			mg/L	. NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA	NA NA
	SODIUM	0.96	2	mg/L 31 mg/L	. NA . 0.02 U	0.02 U	0.02 U	0.02 U		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA NA	NA NA	NA NA	0.041	0.075	NA 0.037	NA 0.025	0.02 U	0.02 U	NA NA	NA NA	NA NA	0.02 U	NA NA	NA NA	NA NA
	ARSENIC	0.018	0.018	0.018 mg/L	. NA	NA	0.02 U	0.02 U		NA	NA NA	NA NA	NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA.	NA.	0.02	NA	NA NA	NA NA	NA NA
	BERYLLIUM		0.004	mg/L	. NA	NA	NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005	mg/L	. NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1	mg/l	. NA	NA	0.01 U	0.01 U	J NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
metals, DISSOIVED	LEAD	0.007	0.015	0.015 mg/L	. NA	NA	0.005 U	0.005 L	J NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002	mg/L	. NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2 mg/L		NA	0.04 U	0.04 U		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
-	ZINC	0.96	2	31 mg/L		NA	0.02 U	0.02 U	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY ALKALINITY, TOTAL (AS CACO3)			mg/L	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
1	ALKALINITY, TOTAL (AS CACO3) AMMONIA AS N	15	30	mg/L 30 mg/L	. NA	NA 46	NA 48	NA 25	_	NA 32	NA 15	NA 39	NA 29	NA 17	NA 31	NA 13	NA 39	NA 34	NA 30	NA 13	NA 21	NA 28	NA 29 J	NA 31	NA 32	NA 18	NA 0.96	0.65	NA 0.53	NA 2.2	NA 2.2	NA 2.2 J	NA NA	NA 1.5	NA NA	NA 1.1	NA 2.3	NA 1.5	NA 2.8
	BICARBONATE			mg/L	. NA	NA NA	NA NA	NA.	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	CARBONATE			mg/L	. NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA NA
Miscellaneous	CONDUCTIVITY			umho cm	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10	mg/L	. NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U
	NITRITE (AS N)			mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	0.05 U	0.05 U
	SULFATE			mg/L	. NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA
	SOLIDS, TOTAL DISSOLVED			mg/l	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs	1,4-DICHLOROBENZENE	**		ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	1 U	NA	NA	NA

Note:

Shaded cell indicates comparison standard used in data enaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Balk foot indicates analytical result exceeds background value.

In Nizate comparison standard base on the Maximum Containant Level (MCL) stabilished by the USEPA National Primary E

NO -No constituents detected above the shows value shows.

1. Indicates constituent was not detected above value shows.

1. Indicates constituent was not detected at an estimated value.

1. Indicates constituent was not detected at an estimated value.

1. Indicates constituent was not detected at an estimated value.

Monitoring wells MMV-38, POMW-88, POMW-108, POMW-118, POMW-118, POMW-218, POMW-318, POMW-328, POMW-331, PO

				Location	1:							PDMV	V-23T																		PDMW-24T										
				Sample Date	: 10/23/1997	8/9/1999	11/17/1999	2/24/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001	2/5/2002	9/11/2002	2/5/2003	6/27/2003	1/29/2004	7/21/2004	3/7/2006	6/4/2014	10/23/1997	8/8/1999	11/18/1999	2/25/2000	5/16/2000	8/22/2000	1/9/2001	7/16/2001	9/11/2002	2/5/2003	6/26/2003	1/29/2004	7/21/2004	3/5/2006	4/1/2008	7/19	/2008	10/9/2008	12/3/2009	6/18/2010	11/5/2014
				Sample Type	: Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal
				Sample ID	PDMW- 23T_10/23/1	PDMW-	PDMW-	PDMW- 1 23T_2/24/20	PDMW-	PDMW-	PDMW-	PDMW- 23T 7/16/20	PDMW-	PDMW-	PDMW- 23T 2/5/200	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- 24T_10/23/1 2	PDMW-	PDMW- 24T_11/18/1	PDMW-	PDMW- 24T 5/16/20	PDMW- 24T 8/22/20	PDMW-	PDMW-	PDMW- 24T 9/11/20	PDMW-	PDMW- 24T_6/26/20	PDMW- 24T 1/29/20	PDMW-	PDMW-	PDMW-	PDMW- 24T 7/19/20	PDMW-24T-	PDMW- 24T_10/9/20	PDMW-	PDMW-	PDMW- 24T_110520
				Sample ID	997	9	999	00	00	00	01	01	2	02	3	03	04	04	6	14	997	9	999	00	00	00	1	01	02	3	03	04	04	6	8	08	08	08	09	10	14
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	ACENAPHTHYLENE	1.4	1	510 ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	ANTHRACENE	0.2	0.2	5100 ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA NA
	BENZO(A)ANTHRACENE BENZO(A)PYRENE	0.2	0.1	3.9 ug/L 0.39 ug/L	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	10 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	BENZO(G,H,I)PERYLENE			ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.5 U	NA	NA	NA	NA	NA	NA.	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	BENZO(K)FLUORANTHENE			ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	CHRYSENE	0.2	0.2	65 ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	1 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	FLUORANTHENE	0.5	1000	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	FLUORENE INDENO(1.2.3-CD)PYRENE	0.5	1000	ug/L	0.5 U	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	10 U	0.5 U 0.5 U	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.5 U NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	0.19 U* 0.19 U	0.19 U 0.19 U	NA NA
	1-METHYLNAPHTHALENE			ug/L	NA.	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.76 U	0.38 U	NA NA
	2-METHYLNAPHTHALENE			ug/L	NA.	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	NA	NA	NA	NA	NA	NA	NA .	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	NAPHTHALENE	1	20	20 ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	PHENANTHRENE	0.22	0.2	510 ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	PYRENE	0.5	1000	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	NA
	TOTAL PAHs			ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	BENZENE	1	5	31.2 ug/L	1 U	1 U	1 U	10	10	10	10	1 U	NA NA	10	10	10	10	10	10	10	1 U	10	1 U	10	10	10	1 U	10	1 U	1 U	10	1 U	10	1 U	1 U	10	1 U	10	10	10	NA NA
	ETHYLBENZENE p/m-XYLENE	1	700	ug/L	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U NA	1 U NA	1 U NA	1 U NA	1 U NA	NA NA	1 U NA	1 U NA	NA NA	1 U NA	1 U NA	1 U NA	NA NA
	METHYLENE CHLORIDE			ug/L	NA NA	5 U	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U	NA.	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA
VOCs	o-XYLENE			ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	TOLUENE	1	1000	1900 ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
	XYLENES (TOTAL)	2	10000	ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA
	METHYL TERT BUTYL ETHER			ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	NA
	TOTAL BTEX			ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	ARSENIC	0.018	0.018	0.018 mg/L	0.0157	0.013	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.025	0.013	0.013	0.01 U	0.01 U	0.01 U	0.02 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	NA
	BERYLLIUM BORON		0.004	mg/L	0.005 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CADMIUM		0.005	· mg/L	0.005 U	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CALCIUM METAL			mg/L	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	CHROMIUM	0.013	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.012	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA
Metals, Total	LEAD	0.007	0.015	0.015 mg/L	0.0051	0.006	0.005 U	0.0062	0.012	0.0091	0.005 U	0.005	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U
	MAGNESIUM			mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002	mg/L	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2 mg/L	0.0519	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U NA	0.04 U	0.04 U	0.04 U	0.04 U	NA
	POTASSIUM			mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ZINC	0.96	2	31 mg/L	0.341	0.27	0.27	0.27	0.29	0.17	0.15	0.12	NA NA	0.02 U	0.03	0.1	0.021	0.02 U	0.14	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA NA
	ARSENIC	0.018	0.018	0.018 mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BERYLLIUM		0.004	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1	mg/L	NA	NA	0.01 U	0.01 U	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015 mg/L	NA	NA	0.005 U	0.0068	0.0076	0.0086	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U
	MERCURY		0.002	mg/L	NA NA	NA NA	NA .	NA .	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA OALL	NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NICKEL	0.13	0.1	2 mg/L 31 mg/L	NA NA	NA NA	0.04 U 0.28	0.04 U 0.3	NA 0.29	NA 0.17	NA 0.13	NA 0.12	NA 0.18	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U 0.02 U	0.04 U 0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY		-	mg/L	NA NA	NA NA	NA	NA NA	NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)			mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA
	AMMONIA AS N	15	30	30 mg/L	NA	0.43	22	6.7	2	0.92	3.8	0.54	NA	1.2	2.8	0.14	0.34	0.93	0.2	3.6	NA	3.1	15	3.9	3.1	3.5	3.6	3.8	5.8	4.2	4.1	3.4	3.9	0.65	1.7	1.7	1.8	1.4	1.3	1.5	NA
	BICARBONATE			mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE			mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY			umhos/	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	NITRITE (AS N)			mg/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SULFATE SOLIDS, TOTAL DISSOLVED	1		mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE			mg/L	1	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	1	1 1				-																									1										

Notes:

Shaded cell indicates comparison standard used in data evaluation.

wighlighted cell indicates analytical result exceeds comparison criteria.

Bold and fault test indicates analytical result exceeds background value.

In Nata comparison standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

No - No constituents detected above the labora tory minimum detection limit.

J. Indicates constituent was not detected above value shown.

J. Indicates constituent was not detected at an estimated value.

Monitoring wells (MV-2) P, POMM-48, POMM-48, POMM-11P, POMM-14T, POMM-31R, POMM-31D, POMM-32R, POMM-33D, POMM-43D, PO

				L	ocation:										PDMW-25T									
				Samp	ole Date:	10/23/1997	8/8/1999	11/17/1999	2/24/2000	5/15/2000	8/21/2000	1/9/2001	7/12/2001	9/12/2002	2/5/2003	6/26/2003	1/29/2004	7/22	2/2004	3/7/2006	4/4/2008	7/19/2008	10/9/2008	12/5/2009
				Samp	le Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal
				Sai	mple ID:	PDMW- 25T_10/23/1 997	PDM W- 25T_8/8/199 9	PDMW- 25T_11/17/1 999	PDMW- 25T_2/24/20 00	PDMW- 25T_5/15/20 00	PDMW- 25T_8/21/20 00	PDMW- 25T_1/9/200 1	PDMW- 25T_7/12/20 01	PDMW- 25T_9/12/20 02	PDM W- 25T_2/5/200 3	PDM W- 25T_6/26/20 03	PDMW- 25T_1/29/20 04	PDMW- 25T_7/22/20 04	PDMW-25T (DUP)_7/22/ 2004	PDMW- 25T_3/7/200 6	PDMW- 25T_4/4/200 8	PDMW- 25T_7/19/20 08	PDMW- 25T_10/9/20 08	PDM W- 25T_12/5/20 09
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	ACENAPHTHYLENE	1.4	1	510	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	ANTHRACENE	0.2	0.2	5100	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE				ug/L ug/L	0.5 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U
	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	10	NA .	NA.	NA.	NA .	NA.	NA.	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA	NA.	NA	NA.	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	1-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA.	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.76 U
	2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	PHENANTHRENE	0.22	0.2	510	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	PYRENE TOTAL PAHs				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		1 .	5	31.2	ug/L	1 U	1 U	10	1 U	1 U	1 U	1 U	10	10	1 U	10	10	10	1 U	10	1 U	1 U	10	1 U
	ETHYLBENZENE	1	700		ug/L	1 U	1 U	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	p/m-XYLENE METHYLENE CHLORIDE				ug/L	NA NA	10	10	1 U	1 U	1 U	10	1 U	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
VOCs	o-XYLENE CALCAIDE				ug/L ug/L	NA NA	5 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
1003	TOLUENE	1	1000	1900	ug/L	1 U	10	10	10	10	10	10	10	10	1 U	1 U	1 U	10	10	10	1 U	1 U	10	1 U
	XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	10	1 U	1 U	1 U	1 U	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA.	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA
	TOTAL BTEX				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	ARSENIC	0.018	0.018	0.018	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U
	BERYLLIUM		0.004		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BORON				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Metals, Total	LEAD MAGNESIUM	0.007	0.015	0.015	mg/L	0.005 U NA	0.005 U NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U NA	0.005 U	0.005 U	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U NA	0.005 U	0.005 U	0.005 U NA	0.01 U
	MAGNESIUM MERCURY		0.002		mg/L	0.0002 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	NICKEL	0.13	0.002	2	mg/L	0.0002 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
	POTASSIUM	0.13	0.1		mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
	SODIUM				mg/L	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	ZINC	0.96	2	31	mg/L	0.02 U	0.02 U	0.02 U	0.035	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BERYLLIUM		0.004		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015	mg/L	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	mg/L	NA	NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA
-	ZINC	0.96	2	31	mg/L	NA	NA	0.02 U	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY TOTAL (AS CACOS)				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3) AMMONIA AS N	15	30	30	mg/L	NA NA	NA 3.2	NA 14	NA 3.2	NA 1.8	NA 4	NA 0.66	NA 3.3	NA 2.8	NA 5.6	NA 2.6	0.035	NA 3.7	NA 3.6	NA 1.6	NA 3.5	NA 3.6	NA 5.4	NA 6.1
	BICARBONATE				mg/L	NA NA	NA	NA.	NA NA	NA.	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA	NA.	NA NA	NA NA	NA	NA NA
	CARBONATE				mg/L	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Miscellaneous	CONDUCTIVITY				umhos/	NA NA	NA NA	NA.	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA
	NITRATE (AS N)		10		mg/L	NA NA	NA NA	NA	NA.	NA.	NA	NA NA	NA	NA NA	NA NA	NA	NA	NA.	NA NA	NA.	NA	NA NA	NA NA	NA
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	SULFATE				mg/L	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I	SOLIDS, TOTAL DISSOLVED				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cell indicates comparison standard used in date evaluation.

Inight glied cell indicates analytical result exceeds comparison criteria.

Bold and Balk test indicates analytical result exceeds background value.

Bold and Balk test indicates analytical result exceeds background value.

In Nate comparison standard base on the Maximum Containant Level (MCL) established by the USEPA National Primary C

No -No constituents detected above the shown of the containant Level (MCL) established by the USEPA National Primary C

Li Indicates constituent was not detected above value shown.

Li Indicates constituent was not detected at an estimated value.

Unit Indicates constituent was not detected at an estimated value.

Monitoring entils MM-38, PDMM-88, PDMM-108, PDMM-118, PDMM-118, PDMM-218, PDMM-218, PDMM-318, PDMM-318,

				Loc	ation:																PDMV	V-26T															
				Sample	_	997 8/9	9/1999 1	11/18/1999	2/25/2000	5/17/2000	8/22/2000	1/10/2001	7/16/2001	2/5/2002	9/10/2002	2/5/2003	6/26/	2003	1/27/2004	7/20/2004	3/8/2006	4/2/2008	7/18/2008	10/5/2008	12/5/2009	6/18/	2010	12/16/2010	6/16/2011	12/8/2011	12/11/2013	6/5/2014	11/6/	2014	5/21/2015	11/12/2015	11/12/2015
				Sample	Type: Norm	al No	ormal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Dup	Normal
					PDM\	v. pr	OMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-26T	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-		PDMW-	PDMW-	PDMW-	PDMW-	DUP-	PDMW-	DUP-	PDMW-
				Samp	le ID: 26T_10/ 997	30/1 26T_	8/9/199 20 9	999		26T_5/17/20 00	26T_8/22/20 00	26T_1/10/20 01	26T_7/16/20 01	26T_2/5/200 2	26T_9/10/20 02	26T_2/5/200 3	26T_6/26/20 03	(DUP)_6/26/ 2003		26T_7/20/20 04	26T_3/8/200 6	26T_4/2/200 8			26T_12/5/20 09	26T_6/18/20 10	26TDUP_6/1 8/2010	26T_12/16/2 010	PDMW-26T- 061611	26T_120820 11	26T_12/11/2 013	26T_060520 14	26T_110620 14	03_1106201	26T_052120 15	01_1112201	26T_111220 15
Method Group	Analyte	Background	Type 3 RR	IS Type 4 RRS	Inits Resu	lt Re	esult	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000	_	ug/L 1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	ACENAPHTHYLENE	1.4	1	_	ug/L 1 U	_	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U*	NA	NA	NA	NA	NA
	ANTHRACENE	0.2	0.2	5100	ug/L 0.2 l	_).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L 0.2 l		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L 0.2 l	_	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE	0.2	0.2	0.65	ug/L 0.2 l	_	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	0.2 U NA	NA NA	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.2 U	1.9 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	9.1 U 9.1 U	9.8 U 9.8 U	NA NA	NA NA	NA NA	NA NA	NA NA
	BENZO(K)FLUORANTHENE				ug/L 0.5 t	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA NA	NA NA	NA NA	9.1 U	9.8 U	NA NA	NA NA	NA NA	NA NA	NA NA
	CHRYSENE	0.2	0.2	65	ug/L 0.2 l	_).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA.	NA	NA	9.1 U	9.8 U	NA	NA	NA NA	NA.	NA .
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L 1 U	_	NA	NA	NA.	NA	NA	NA	NA.	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA NA	NA	NA	9.1 U	9.8 U	NA NA	NA NA	NA	NA	NA .
	FLUORANTHENE	0.5	1000		ug/L 0.5 L	_	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	FLUORENE	0.5	1000		ug/L 0.5 L	0.).5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L 0.5 l		NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	1-METHYLNAPHTHALENE				ug/L NA		NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.8 U	0.38 U	0.38 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	2-METHYLNAPHTHALENE				ug/L NA		NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	NAPHTHALENE	1	20	_	ug/L 1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	PHENANTHRENE	0.22	0.2		ug/L 0.2 l	_).2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA .	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	PYRENE	0.5	1000	_	ug/L 0.5 L	_	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U	1.9 U	0.2 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.8 U	NA	NA	NA	NA	NA
	TOTAL PAHS BENZENE	1		-	ug/L ND	_	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	NA NA	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1 U	ND 1.2	ND 3	ND 1.5	ND 1 U	ND 1.7	ND 2.3	ND 2.3	NA NA	NA NA	NA NA	ND 1 U	ND 1 U	NA NA	NA NA	NA NA	NA NA	NA NA
	ETHYLBENZENE	1	700		ug/L 1 U	_	1 U	10	10	10	10	10	10	NA NA	10	10	10	10	10	1 U	1.2 1 U	1 U	1.5 1 U	10	1.7 1 U	1 U	2.3 1 U	NA NA	NA NA	NA NA	1 U	1 U	NA NA	NA NA	NA NA	NA NA	NA NA
	p/m-XYLENE			_	ug/L NA	_	1 U	10	1 U	1 U	1 U	1 U	1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA
	METHYLENE CHLORIDE			+	ug/L NA		5 U	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	5 U	5 U	NA NA	NA NA	NA NA	NA.	NA .
VOCs	o-XYLENE			- - - - - - - - - - 	ug/L NA	_	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L 1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA.	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L 2 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	2 U	2 U	NA	NA	NA	NA	NA
	METHYL TERT BUTYL ETHER				ug/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	10 U	10 U	10 U	NA	NA	10 U	10 U	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	1.2	3	1.5	ND	1.7	2.3	2.3	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA
	ARSENIC	0.018	0.018	0.018	ng/L 0.01		0.016	0.016	0.013	0.02	0.022	0.026	0.017	NA	0.017	0.019	0.021	0.019	0.017	0.018	0.02	0.029	0.027	0.024	0.034	0.045	0.047	0.025	0.034	0.025	0.021	0.025	0.02 U	0.02 U	0.025	0.02 U	0.02 U
	BERYLLIUM		0.004		ng/L 0.005	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BORON				ng/L NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM CALCIUM METAL		0.005		ng/L 0.005	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	CHROMILIM	0.013	0.1		ng/L 0.01	_	.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA NA	NA NA	NA.	0.0022	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Total	LEAD	0.007	0.015	0.015	ng/L 0.005	_		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA.	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
	MAGNESIUM				ng/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		ng/L 0.0002	U	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NICKEL	0.13	0.1	2	ng/L 0.04	J 0.	.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.0043	0.04 U	NA	NA	NA	NA	NA
	POTASSIUM				ng/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SODIUM				ng/L NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZINC	0.96	2		ng/L 0.02		.02 U	0.02 U	0.02 U	0.1	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.02 U	0.02 U	NA	NA	NA	NA	NA
	ARSENIC	0.018	0.018	_	ng/L NA	_	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BERYLLIUM		0.004		ng/L NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
1	CADMIUM	0.013	0.005	_	ng/L NA	_	NA NA	NA 0.01 U	NA 0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Metals, Dissolved	LEAD	0.013	0.015		ng/L NA	_		0.01 U	0.005 U	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	MERCURY		0.002	_	ng/L NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA
	NICKEL	0.13	0.1		ng/L NA	_	NA	0.04 U	0.04 U	NA	NA .	NA	NA	NA NA	NA	NA NA	NA	NA	NA.	NA	NA	0.04 U	NA	NA NA	NA NA	NA	NA.	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA .
	ZINC	0.96	2		ng/L NA	_	NA	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02 U	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA.	NA
	ALKALINITY				ng/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL (AS CACO3)				ng/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	ng/L 380	:	350	440	34	550	740	900	490	NA	540	580	510	320	610	650	710	570	580	560	570	500	500	520	570	550	530	600	470	490	550	600	600
	BICARBONATE				ng/L NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				ng/L NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY				nhos/ cm NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		ng/L NA	_	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.41	1.1	0.051	0.07	0.26	0.05 U	0.05 U
	NITRITE (AS N)				mg/I NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.05 U	0.05 U NA	0.05 U
	SULFATE SOLIDS, TOTAL DISSOLVED			- - - - - - - - - - 		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE				ng/L NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 1 U	1 U	NA NA	NA NA	NA NA	NA NA	NA NA
	ı	<u> </u>						l l			1		1																	1		·					

Note:

Shaded cell indicates comparison standard used in data evaluation.

Ingolighted cell indicates analytical result exceeds comparison criteria.

Bold and Rolk feet indicates analytical result exceeds background value.

F. Nitrate comparison standard based on the Maximum Centralinant Intel MCUI established by the USEPA National Primary C

NO: No constituents detected above the shoratory minimum detection limit.

D. Indicates constituents was not detected above value shown.

2. Indicates constituent was not detected at an estimated value.

Usi indicates constituent was not detected at an estimated value.

Usi indicates constituent was not detected at an estimated value.

Monitoring wells NW-3R, POMW-8R, POMW-3R, POMW-3R

				L	ocation:								PDMV	V-27P												PDMV	V-27R				
				Samp	ole Date:	11/4/1997	8/11/1999	11/16/1999	2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001	2/6/2002	9/12/2002	2/4/2003	6/26/2003	1/29/2004	7/20/2004	3/6/2	2006	4/3/2008	7/20/2008	10/6/2008	12/4/2009	6/18/2010	12/16/2010	6/15/	2011	12/8	2011
				Samp	ole Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Nor	mal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Dup
				Sa	mple ID:	PDMW- 27P_11/4/19 97	PDMW- 27P_8/11/19 99	PDMW- 27P_11/16/1 999	PDMW- 27P_2/23/20 00	PDMW- 27P_5/16/20 00	PDMW- 27P_8/22/20 00	PDMW- 27P_1/10/20 01	PDMW- 27P_7/16/20 01	PDMW- 27P_2/6/200 2	PDMW- 27P_9/12/20 02	PDMW- 27P_2/4/200 3	PDMW- 27P_6/26/20 03	PDMW- 27P_1/29/20 04	PDMW- 27P_7/20/20 04	PDMW-27P Filtered_3/6 /2006	PDMW-27P Unfiltered_3 /6/2006	PDMW- 27R_4/3/200 8	PDMW- 27R_7/20/20 08	PDMW- 27R_10/6/20 08	PDMW- 27R_12/4/20 09	PDMW- 27R_6/18/20 10	PDMW- 27R_12/16/2 010	PDMW- 27R_061511	DUP- 3_061511	PDMW- 27R_120820 11	DUP- 03_1208201 1
Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1.4	1 U	1.2 J	1.9	1.5	1 U	1 U	1 U	1.1	0.83	0.54	0.52	0.2 U	0.19 U	0.53	0.74	0.67	0.84	0.72	0.64 J	NA	NA	NA	NA	NA
	ACENAPHTHYLENE ANTHRACENE	1.4	0.2	510 5100	ug/L ug/L	1 U	5.5 0.2 U	3.9 0.2 U	4.6 0.34	1 U	2.1 0.37	0.2 U	1.7 0.2 U	2.6 0.38	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.28 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	NA NA	NA NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA NA	NA NA	NA.	NA NA	NA NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
	BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	0.5 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
	BENZO(K)FLUORANTHENE				ug/L	0.5 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
L	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA .	NA	NA	NA	NA
PAHs	DIBENZO(A,H)ANTHRACENE FLUORANTHENE	0.5	1000		ug/L ug/L	1 U 0.5 U	0.5 U	0.2 U 0.5 U	NA 0.5 U	NA 0.5 U	NA 0.5 U	NA 0.5 U	NA 0.5 U	NA 0.5 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA	NA NA	NA NA	NA NA	NA NA
	FLUORENE	0.5	1000		ug/L	1.6	1.3	0.85	0.58 J	0.5 U	0.59	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.190	0.19 0	0.19 0	0.19 0	0.46	NA.	NA.	NA NA	NA.	NA NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA .	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA.	NA	NA	NA.	NA
	1-METHYLNAPHTHALENE				ug/L	NA	NA	1.8 J	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.76 U	0.38 UJ	NA	NA	NA	NA	NA
	2-METHYLNAPHTHALENE				ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA	NA	NA	NA	NA
	NAPHTHALENE	1	20	20	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.54	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.22	0.19 U	0.19 UJ	NA	NA	NA	NA	NA
	PHENANTHRENE	0.22	0.2	510	ug/L	0.78	0.2 U	0.2 U	0.28 J	0.2 U	0.31	0.2 U	0.2 U	0.22 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA
	PYRENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA .	NA
	TOTAL PAHS BENZENE	1	5	31.2	ug/L ug/L	2.38 1 U	8.2 1 U	6.55 1 U	7	1.9 1 U	4.87 1 U	5 1 U	1.7 1 U	3.2 1 U	1.1 1 U	1.37 1 U	0.54 1 U	0.52 1 U	ND 6.7	ND NA	0.53 1 U	1.15 1 U	1.09 1 U	1.84 1 U	1.09 1 U	1.1 1 U	NA NA	NA NA	NA NA	NA NA	NA NA
	ETHYLBENZENE	1	700	31.2	ug/L	10	1 U	10	1.2	10	1 U	10	10	1 U	1 U	10	10	10	1 U	NA NA	10	1 U	10	1 U	10	10	NA NA	NA NA	NA NA	NA NA	NA NA
	p/m-XYLENE				ug/L	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1.5	1 U	1 U	1.2	1 U	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
	XYLENES (TOTAL)	2	10000		ug/L	4	1 U	1 U	1.5	1 U	1 U	1.2	1 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	NA	NA
	METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 U	NA	NA	NA	NA	NA
	TOTAL BTEX				ug/L	4	ND	1.1	3.8	ND	ND	1.2	ND	ND	ND	ND	ND	ND	7.9	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	ARSENIC BERYLLIUM	0.018	0.018	0.018	mg/L mg/L	0.01 0.005 U	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.013 NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.01 U NA	0.02 U NA	0.024 NA	0.018 U NA	0.018 U NA	0.018 U NA	0.018 U NA	0.018 U NA
	BORON				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA.	NA NA	NA NA
	CADMIUM		0.005		mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA.	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA.	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.031	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	NA	NA
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY		0.002		mg/L	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA
	NICKEL POTASSIUM	0.13	0.1	2	mg/L mg/L	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	0.04 U NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SODIUM				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA.	NA NA	NA NA
	ZINC	0.96	2	31	mg/L	0.02 U	0.02 U	0.022 U	0.02 U	0.02 U	0.02 U	0.06	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.047	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA .	NA	NA NA	NA NA
	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BERYLLIUM		0.004		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA .	NA .	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015	mg/L	NA NA	NA NA	0.005 U	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA
	MERCURY NICKEL	0.13	0.002	2	mg/L mg/L	NA NA	NA NA	NA 0.04 U	NA 0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ZINC	0.13	0.1	31	mg/L mg/L	NA NA	NA NA	0.04 U	0.04 U	NA NA	NA NA	0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	91	14	89	73	98	110	56	89	67	92	26	21	0.03 U	400	NA	28	170	160	140	150	96	98	170	160	150	140
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA .	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRITE (AS N)				mg/l	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SULFATE SOLIDS, TOTAL DISSOLVED				mg/L mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE				ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
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Note:

Shaded cell indicates comparison standard used in data evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Ralk test indicates analytical result exceeds background value.

In Nitrate comparison standard base on the Maximum Containant Level (MCL) stabilished by the USEPA National Primary (

100 - No constituents detected above the laboratory infinum detection limit.

1. Indicates constituent was not detected above value show.

1. Indicates constituent was not detected at an estimated value.

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1. Indicates constituent was no

Part						Location:														PDM	W-29D													
Thi							11/2/1997	8/10/1999	11/17/1999	2/23/2000	5/16/2000	8/21/2000	1/9/2001	7/11/2001	2/6/2002	9/10/2002	2/6	/2003	6/26/2003			3/8/2006	4/2/2008	7/18/2008	10/5/2008	12/5/2009	6/18/2010	12/16/2010	6/15/2011	12/6/2011	12/11/2013	6/3/2014	11/6/2014	5/21/2015
1					Samp	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
					Se	ample ID:		29D_8/10/19	29D_11/17/1	29D_2/23/20	29D_5/16/20	29D_8/21/20		29D_7/11/20	29D_2/6/200	29D_9/10/20		(DUP)_2/6/2	29D_6/26/20	29D_1/27/20	29D_7/20/20			29D_7/18/20	29D_10/5/20	29D_12/5/20	29D_6/18/20	29D_12/16/2			29D_12/11/2	29D_060320	29D_110620	29D_052120
神性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性	Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	S Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
				2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U		NA	NA	NA	9.1 U			
				1		-		_	!											!			!										-	
						-		_															-										-	
**************************************				1		,		!						<u> </u>									!											
		BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.7 U	NA NA	NA .
・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・		BENZO(G,H,I)PERYLENE				ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.7 U	NA	NA
Mathematical Registration						_		-	-					+						-			-										l	
Seminone Marchine	DAMo		0.2		65	_		_	-					+						-			-										l	
Section Sect	PANS		0.5			+ -		_	!					<u> </u>						-			_											
		FLUORENE	-	1000		+ -		_	!					+						_			_	0.19 U	0.19 U	0.19 U		NA						
		INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA.	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	9.1 U	9.7 U	NA	NA.
Minimate		1-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.75 U	0.38 U	NA	NA	NA	9.1 U	9.7 U	NA	NA
						ug/L			!					+									!										-	
一性 一性 一性 一性 一性 一性 一性 一性						ug/L																												
Marche M					- 310			_	-					+						-			_										-	
Section Sect						ug/L		ND	ND		ND		ND	+						-			ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	-	
Part		BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	NA	NA.
Secrit Condition Part Pa		ETHYLBENZENE	1	700		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	NA	NA.
March Marc						+-		_	-					+						_			 										l	
March Marc	1/00%					+ -		-	1					1						-			1	-									H	-
	VOCS		1	1000	1900	-		_	-						-					 			 										l	
State Stat		XYLENES (TOTAL)	2	10000		-		1 U	1	1 U	1 U			+	2 U					1			2 U	2 U	2 U		2 U	NA	NA.	NA		2 U	NA	
Member M		METHYL TERT BUTYL ETHER				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA	NA
Perform Perf		TOTAL BTEX				ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	NA
March Marc			0.018		0.018	,															_													
Section Sect				0.004		+-		_	-					1									-										-	
				0.005		+-		_	-											-			_										-	
Marchan Marc						mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	
Maria Mari		CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	0.01 U	0.01 U	NA	NA
March Marc	Metals, Total		0.007	0.015	0.015	mg/L			0.005 U	0.005 U	0.005 U	0.005 U		0.005 U				0.005 U	0.005 U	0.005 U	0.005 U		0.005 U	0.005 U		0.01 U	0.01 U	NA		NA				
Part						+-		!	!						-					ļ			!											
Part					2				<u> </u>						-					 													!	
March Marc						-																												
Marian		SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA NA
Maria Mari						mg/L					0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			0.02 U	0.02 U							0.02 U	0.02 U	NA	NA	NA	0.01			
Maria Casima Ca			0.018		0.018	mg/L								<u> </u>							_												-	
*** Procedural Reality of the process of the proces						mg/L			ļ					<u> </u>							_												-	
Maria Mari			0.013			mg/L		-	-		_			+							_					_							-	
NOMEL 0.13 0.1 2 mg/s NA	Metals, Dissolved	LEAD	-	0.015	0.015	mg/L	NA	-	0.005 U					+						-			-	NA									-	
2NC 0.96 2 31 mpl NA NA 0.02 0.02 NA		MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALGALISTY		-	_	0.1	2	mg/L		NA	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA		NA		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
ALKALINITY, TOTAL (AS CACCOS)			1			_		!	-											_			!											
AMMONA AS N 15 80 30 mgl 2 10 11 11 12 12 11 11 7.5 0.31 12 13 11 11 0.073 6.8 6.2 6.7 3.9 5.5 500 11 7.5 9.9 6.1 11 10 11 10 11 1 10 11 11 11 11 11 11						+-		-	-					+	-					_			 										!	
BEABBONATE		, , , , , , , , , , , , , , , , , , , ,	15	30	30	+		!										_																
CORDICTIVITY			-			_		!						+							_												-	
CORDUSTIVITY	Micrallanon	CARBONATE					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NTIFITE (AS N) mgl NA	wisconaleous					umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA
SULFATE mg/L NA						+-		-	-						-					_			 										-	
SOLDS, TOTAL DISSOLVED mgL NA						-								1									ļ											
						+-								 							_		!										-	
	SVOCs																																	

Notes:

Shaded cell indicates comparison standard used in data evaluation.

Highlighted cell indicates analytical result exceeds comparison criteria.

Bold and Rolls tent indicates analytical result exceeds background value.

In Narias comparison standard base on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above their laboratory minimum detection limit.

J. Indicates constituent was not detected above value shown.

J. Indicates constituent was not detected at an estimated value.

Monitoring will a Mov 3P, PDAMW 4B, PDAMW 4B, PDAMW 4BP, PDAMW 4BP, PDAMW 4BP, PDAMW 3BP, PDAMW 4BP, PDAMW 4

				Locat	ion:							PDM	W-28D													PDMW-30P										PDMV	W-30R				PDMW-31P	
				Sample D	ate: 11/2/19	11/8/1997	7 8/10/1999	9 11/18/1999	2/23/200	5/15/2000	8/21/2000	1/9/2001	7/10/2001	9/13/2002 2/4/200	6/24/2003	1/26/2004	7/21/2004	3/9/20	006	11/5/1997	5/16/2000	1/10/2001	9/12/2002	2/6/2003 6/26/	2003 1/30/2004	3/8/2006	4/4/2008	7/22/2008 10	9/2008 12/	1/2009 12/1	1/2013 11	3/2014 5/2	0/2015 6	/15/2010 1	12/14/2010	6/14/2011	12/21/20	011	6/3/2014 1	11/6/1997	8/10/1999	11/18/1999
				Sample T	ype: Norma	I Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Norma	Normal	Normal	Normal	Norm	nal	Normal	Normal	Normal	Normal	Normal Nor	mal Normal	Normal	Normal	Normal N	ormal No	rmal No	rmal N	ormal N	ormal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal
				CI-	PDMW	- PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PDMW	PDMW-	PDMW-	PDMW-	PDMW-28D	PDMW-28D	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PDI	IW- PDMW-	PDMW-	PDMW-	PDMW- P	MW- PE	MW- PD	MW- P	OMW- P	OMW-	PDMW-	PDMW-	PDMW-30R-	PDMW-	DUP-	PDMW-	PDMW-	PDMW-	PDMW-
				Sample	97 PHID: 28D_11/2	/19 28D_11/8/1 97	19 28D_8/10/ 99	19 28D_11/18/1 999	00 00	28D_5/15/20 00	00 28D_8/21/20 00	28D_1/9/200 1	28D_7/10/20 01	28D_9/13/20 28D_2/4/ 02 3	00 28D_6/24/2 03	04 28D_1/26/20	28D_7/21/20 04	/2006	Jnfiltered_3 /9/2006	0P_11/5/19 97	30P_5/16/20 00	01 01	02 02	0P_2/6/200 30P_6 3	26/20 30P_1/30/2 3 04	0 30P_3/8/200 6	30P_4/4/200 8	30P_7/22/20 30P 08	10/9/20 30P_ 08	12/3/20 30P_0	12/11/2 30P)13	110320 30P	052020 30 15	R_6/15/20 30 10	0R_12/14/2 010	061411	30R_122120 0	4_1221201 30	30R_060320 31 14	P_11/6/19 3 97	31P_8/10/19 99	1P_11/18/1 999
Method Grou	n Analyte	Background	Type 3 RRS	Type 4 RRS Ur	its Resul	Result	Result	Result	Result	Result	Result	Result	Result	Result Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result Res	ult Result	Result	Result	Result F	esult R	sult Re	sult F	esult R	esult	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000	ug	y/L 1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U 0.2 U	0.2 U	0.2 U	3.4	0.19 U	0.19 U	1 U	1 U	1 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	19 U 9.	.5 U	NA	NA	0.19 U	NA	NA	NA NA	NA	9.8 U	1 U	1 U	1 U
	ACENAPHTHYLENE	1.4	1	510 ug	y/L 1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	1 U	1 U	1 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	19 U 9.	.5 U	NA	NA	0.19 U	NA	NA	NA NA	NA	9.8 U	1 U	1 U	5
	ANTHRACENE	0.2	0.2	5100 ug	y/L 0.2 U	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	19 U 9.	.5 U	NA	NA	0.19 U	NA	NA	NA .	NA	9.8 U	0.2 U	0.2 U	0.2 U
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug	g/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	19 U 9.	.5 U	NA	NA	0.19 U	NA	NA	NA	NA	9.8 U	0.2 U	0.2 U	0.2 U
	BENZO(A)PYRENE	0.2	0.2	0.39 ug	y/L 0.2 U		0.2 U	0.2 U	0.2 U	_	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	-	0.2 U 0.2		0.2 U	0.19 U							0.19 U	NA	NA	NA			0.2 U	0.2 U	0.2 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug	y/L 0.2 U		0.2 U	0.2 U	0.2 U	_	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	-	0.2 U 0.2		0.2 U	0.19 U	-						0.19 U	NA	NA	NA NA		_	0.2 U	0.2 U	0.2 U
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE			ug	y/L 0.5 U y/L 0.5 U		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U 0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.8 U	0.19 U 0.19 U	0.19 U 0.19 U	0.5 U 0.5 U	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 0.2 U 0.2		0.2 U 0.2 U	0.19 U 0.19 U	-						0.19 U 0.19 U	NA NA	NA NA	NA NA		_	0.5 U 0.5 U	NA NA	NA NA
	CHRYSENE	0.2	0.2	65 10	yL 0.30	_	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2	_	0.2 U	0.19 U							0.19 U	NA NA	NA NA	NA.			0.2 U	0.2 U	0.2 U
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	us	yL 1U		NA.	NA.	NA.	NA NA	NA NA	NA .	NA NA	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	1 U	NA NA	NA.		0.2 U 0.2		0.2 U	0.19 U							0.19 U	NA NA	NA.	NA NA		9.8 U	1 U	NA .	NA .
	FLUORANTHENE	0.5	1000	ug	y/L 0.5 U	_	0.5 U	0.5 U	0.5 U	_	0.5 U	0.5 U	0.5 U	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U 0.2		0.2 U	0.19 U							0.19 U	NA	NA	NA.			0.5 U	0.5 U	0.5 U
	FLUORENE	0.5	1000	ug	y/L 0.5 U	NA.	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U 0.2 U	0.2 U	0.2 U	2	0.19 U	0.19 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0.	19 U* 9.	.5 U	NA	NA	0.19 U	NA	NA	NA .	NA.	9.8 U	0.5 U	0.5 U	0.5 U
	INDENO(1,2,3-CD)PYRENE		0.4	ug	g/L 0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U 0.2 U	0.2 U	0.2 U	0.8 U	0.19 U	0.19 U	0.5 U	NA	NA	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	19 U 9.	.5 U	NA	NA	0.19 U	NA	NA	NA	NA	9.8 U	0.5 U	NA	NA
	1-METHYLNAPHTHALENE			ug	y'L NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U 0.2 U	0.2 U	0.2 U	2	0.19 U	0.19 U	NA	NA	NA	0.2 U	0.2 U 0.2	U 0.2 U	0.2 U	0.19 U	0.2 U	.2 U 0	75 U 9.	.5 U	NA	NA	0.38 U	NA	NA	NA	NA	9.8 U	NA	NA	NA
	2-METHYLNAPHTHALENE			ug	y'L NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U 0.2 U	0.2 U	0.2 U	3.2	0.19 U	0.19 U	NA	NA	NA	0.2 U	0.2 U 0.2		0.2 U	0.19 U	-						0.19 U	NA	NA	NA .	NA	9.8 U	NA	NA	NA
	NAPHTHALENE	1	20	20 uç	y/L 1 U	_	1 U	1 U	1 U		1 U	1 U	1 U	0.2 U 0.2 U	0.2 U	0.2 U	35	0.19 U	0.19 U	1 U	1 U	1 U	0.2 U	0.2 U 0.2		0.2 U	0.19 U							0.19 U	NA	NA	NA		9.8 U	1 U	1 U	1 U
	PHENANTHRENE PYRENE	0.22	1000	510 ug	y/L 0.2 U y/L 0.5 U		0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	_	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.2 U 0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	3.4 0.8 U	0.19 U 0.19 U	0.19 U 0.19 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.2 U	0.2 U 0.2 0.2 U 0.2		0.2 U 0.2 U	0.19 U 0.19 U	-						0.19 U 0.19 U	NA	NA NA	NA NA		_	0.2 U 0.5 U	0.2 U 0.5 U	0.69 0.5 U
	TOTAL PAHs	0.5	1000	09	yL 0.50	NA NA	ND	ND	ND	ND	ND	ND	ND	ND ND	0.2 U	ND	49	0.19 U	0.19 U	ND	ND	ND	0.2 U	0.2 U 0.2		ND	0.19 U						NA NA	U.19 U	NA NA	NA NA	NA NA	NA NA	9.8 U ND	ND ND	ND	5.69
	BENZENE	1	5	31.2 us	yL 1U		1 U	1 U	1 U	_	10	1 U	1 U	10 10	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U	10 1		1 U	1 U						NA .	1 U	NA NA	NA NA	NA NA	NA NA	1 U	1 U	1 U	1 U
	ETHYLBENZENE	1	700	uç	y/L 1 U		1 U	1 U	1 U	_	1 U	1 U	1 U	10 10	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U	1 U 1	_	1 U	1 U					NA	NA	1 U	NA	NA	NA.	NA	1 U	1 U	1 U	1 U
	p/m-XYLENE			ug	y'L NA	NA.	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA.	NA N	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	1 U	1 U
	METHYLENE CHLORIDE			ug	y/L NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA 5	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
VOCs	o-XYLENE			uş	y'L NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA N	NA NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	1 U	1 U
	TOLUENE	1	1000	1900 ug	y/L 2.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 10	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U 1	J 1 U	1 U	1 U	1 U	1 U	I U 1	1 U	NA	NA	1 U	NA	NA	NA .	NA	1 U	1 U	1 U	1 U
	XYLENES (TOTAL)	2	10000	ug	y/L 2 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U 2 U	2 U	2 U	2 U	NA	2 U	2 U	1 U	1 U	2 U	2 U 2		2 U	2 U	-					NA	2 U	NA	NA	NA	NA	2 U	2 U	1 U	1 U
	METHYL TERT BUTYL ETHER TOTAL BTEX			ug	g/L NA g/L 2.3	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA NA	NA ND	NA ND	NA ND	NA NA	10 U ND	NA ND	NA ND	NA ND	NA ND	NA N		10 U ND	10 U ND						NA NA	10 U	NA NA	NA NA	NA NA	NA NA	NA ND	NA ND	NA ND	NA ND
	ARSENIC	0.018	0.018	0.018 m	g/L 2.3	_	0.01 U	0.01 U	0.01 U	_	0.01 U	0.01 U	0.01 U	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0131	0.018	0.01 U	0.014	0.011 0 .		0.01 U	0.01							0.02 U	0.018 U	0.018 U	0.018 U	0.018 U	0.02 U	0.111	0.11	0.16
	BERYLLIUM		0.004	m	g/L 0.005 L	_	NA NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	0.005 U	NA NA	NA.	NA NA	NA N		NA NA	NA NA						NA .	NA NA	NA NA	NA NA	NA NA	NA NA		0.005 U	NA NA	NA NA
	BORON			m	g/L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA I	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005	m	g/L 0.005 L	I NA	NA	NA.	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	0.005 U	NA	NA	NA	NA N	NA NA	NA	NA	NA .	NA	NA I	NA	NA	NA	NA	NA	NA	NA .	NA	NA	0.005 U	NA .	NA
	CALCIUM METAL			m	g/L NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1	m	g/L 0.01 U	NA.	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.0	U 0.01 U	0.01 U	0.01 U	0.01 U	.01 U 0	01 U 0.0	01 U	NA	NA	0.01 U	NA	NA	NA .	NA	0.01 U	0.01 U	0.01 U	0.01 U
Metals, Total	LEAD	0.007	0.015	0.015 m	g/L 0.005 L	-	0.005 U		0.005 U		0.005 U	0.005 U	0.005 U	0.005 U 0.005 U		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.007	0.005 U		0.005 U 0.00		0.005 U	0.005 U							0.01 U	NA	NA	NA				0.005 U	0.005 U
	MAGNESIUM		0.002	m	g/L NA	J NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.0002 U	NA	NA NA	NA NA	NA N		NA NA	NA NA						NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	0.0002 U	NA	NA NA
	MERCURY	0.13	0.002	2 m	g/L 0.0002		0.04 U	0.04 U	NA 0.04 U	_	0.04 U	0.04 U	0.04 U	NA NA 0.04 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0002 U	NA 0.04 U	0.04 U	0.04 U	0.04 U 0.0		0.04 U	0.04 U							0.04 U	NA NA	NA NA	NA NA	NA NA		0.0002 U	NA 0.04 U	0.04 U
	POTASSIUM			m	g/L NA	NA.	NA	NA.	NA.	NA	NA NA	NA	NA NA	NA NA	NA NA	NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA N		NA NA	NA NA				_		NA .	NA NA	NA NA	NA NA	NA NA	NA NA	NA .	NA.	NA	NA NA
	SODIUM			m	g/L NA	NA.	NA	NA.	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA N		NA	NA	-		NA I			NA	NA	NA	NA	NA.	NA	NA	NA	NA .	NA
	ZINC	0.96	2	31 m	g/L 0.0385	NA.	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U 0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0744	0.049	0.15	0.023	0.02 U 0.0	2 U 0.02 U	0.02 U	0.12	0.042	.087	036 0.	02 U	NA	NA	0.02 U	NA	NA	NA .	NA	0.02 U	0.0576	0.065	0.18
	ARSENIC	0.018	0.018	0.018 m	g/L NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA NA	NA	NA	NA	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA N	A NA	NA	NA	0.01 U	.01 U 0	02 U I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U
	BERYLLIUM		0.004		g/L NA			NA	NA	_	NA	NA	NA	NA NA	NA	NA	NA	NA		0.005 U	NA	NA	NA	NA N		NA	NA						NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA
	CADMIUM		0.005		g/L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA		0.005 U	NA	NA	NA	NA N		NA	NA						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1	m	_		NA NA	_	+		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	0.01 U		0.01 U 0.005 U	NA 0.005 U	NA NA	NA NA	NA N		NA NA	NA NA						NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		0.01 U 0.005 U
	MERCURY	0.007	0.015		g/L NA		NA NA	_	0.005 U	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U NA		0.005 U	0.005 U NA	NA NA	NA NA	NA N	_	NA NA	NA NA						NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U NA
	NICKEL	0.13	0.002	2 m	_			0.04 U	+	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U		0.0002 U	NA NA	NA NA	NA NA	NA N	_	NA NA	NA NA	-					NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		0.04 U
	ZINC	0.13	2		g/L NA		NA NA	_	+		NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	0.02 U		0.0522	0.02 U	0.14	NA NA	NA N		NA NA	NA NA						NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.09
	ALKALINITY			m				_	NA		NA	NA	NA	NA NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA.	NA N		NA	NA						NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA
	ALKALINITY, TOTAL (AS CACO3)			m	g/L NA	NA	NA	NA	NA	_	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		NA	NA						NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30 m	g/L 0.74	NA.	16	19	14	17	16	17	17	19 18	12	21	22	NA	15	0.037	2.4	0.29	0.27	0.045 0.	3 0.11	0.35	0.49	0.54	0.31	.31	1.7	2.2	2	0.69	NA	1.5	NA.	NA	1.6	6.8	30	7.9
	BICARBONATE			m	g/L NA	_	NA	NA	NA		NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		NA	NA						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE			m	g/L NA		NA	NA	NA	_	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		NA	NA	-					NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA
	CONDUCTIVITY			- um			NA		NA		NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA N	_	NA	NA	-					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		g/L NA			_	NA	_	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N		NA	NA							NA	NA	NA	NA		0.05 U	NA	NA	NA
	NITRITE (AS N) SULFATE				g/I NA g/L NA	_	NA NA	_	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N		NA NA	NA NA						.05 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	SOLIDS, TOTAL DISSOLVED				g/L NA	_	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA N		NA NA	NA NA						NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE				y'L NA	_		_	NA.	_	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA	NA NA	NA NA	NA	NA.	NA NA	NA.	NA N		NA NA	NA NA							NA	NA NA	NA	NA NA	NA	NA	NA NA	NA NA	NA

Notes:

Shaded cell indicates comparison standard used in data evaluation.

"ghi ghied cell indicates analytical result exceeds comparison criteria.

Bold and fails text indicates analytical result exceeds background value.

In Nirata comparison standard backe on the Maximum Containmant steet (MCL) stabilished by the USEPA National Primary C

NO - No constituents detected above the laboratory indirum detection limit.

Lindicates constituent was not detected above value shown.

Lindicates constituent was not detected above value shown.

Lindicates constituent was not detected at an estimated value.

Uninclates constituent was not detected at an estimated value.

Monitoring will in MW 31, POANW 42, POANW 430, POANW 181, POANW 181

Part					ı	Location:							PDMW-31R											PDMW-31R2						PDMW-32P	
Property							2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001	2/6/2002		2/7/2003	6/26/2003	1/29/2004	7/22/2004	3/8	/2006	4/2/2008	7/21	/2008				12/15/2010	6/15/2011	12/7/2011	11/5/1997	8/9/1999	11/18/1999
Profession Pro					Samp	ple Type:	Normal	No	ormal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal										
					Se	ample ID:	31R_2/23/20	31R_5/16/20	31R_8/22/20	31R_1/10/20	31R_7/16/20	31R_2/6/200	31R_9/12/20	31R_2/7/200	31R_6/26/20	31R_1/29/20	31R_7/22/20	Filtered_3/8	Unfiltered_3	31R2_4/2/20	31R2_7/21/2	31R2 DUP_7/21/20	31R2_10/8/2	31R2_12/4/2	31R2_6/16/2	31R2_12/15/	31R2-	31R2_12072	32P_11/5/19		32P_11/18/1
	Method Group	Analyte	Background	Type 3 RRS	Type 4 RRS	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result											
				2000		ug/L													1							ļ					
		-				÷												!	1												-
						-												-	1	+											-
						<u> </u>																				!	1	1			
																			+	+											_
						_													+	+							_				_
Mathematical Registration						+		NA		NA	NA	NA.	0.2 U	0.2 U			0.2 U	0.19 U	+	+	0.19 U	0.19 U			0.19 U	NA		NA	0.5 U	NA	NA
		CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	0.2 U	0.2 U	0.2 U										
94. 14. 14. 14. 14. 14. 14. 14. 14. 14. 1	PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	NA	NA	NA	NA	NA	NA.	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	1 U	NA	NA				
		FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	0.5 U	0.5 U	0.5 U									
		FLUORENE	0.5	1000		ug/L	0.5 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	0.5 U	0.5 U	0.5 U									
		INDENO(1,2,3-CD)PYRENE		0.4		ug/L	NA						0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	0.5 U	NA					
		-				+-													-	+								1			
						+-													-	+						1					
Minima						÷												!	1	1						ļ	1				
		-			510	_													+	+											_
Mathematical angle						+													+	+											_
			1	5	31.2	_												!	1	1						!		1			
Mathematical parameter Mathematical parame		ETHYLBENZENE	1	700		_											1 U		+	+											_
Profession Pro		p/m-XYLENE				ug/L	1 U	1 U	1 U	1 U	1 U	NA.	NA.	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U
March Marc		METHYLENE CHLORIDE				ug/L	NA	NA	NA	NA	NA	NA.	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Part	VOCs	o-XYLENE				ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U						
		TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	1 U
Part		XYLENES (TOTAL)	2	10000		ug/L	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	2 U	1 U	1 U
Marcha M						ug/L			NA	NA			NA	NA	NA		NA	NA	+		10 U	10 U	NA		10 U	NA		NA	NA	NA	-
Part						ug/L																				!		1			-
			0.018		0.018	+														_						-					
Marchane				0.004		+													1	+											-
A MATERIAL PROPERTIES AND PROPERTIES		-		0.005		+													-	+											
Refule Line Line Line Line Line Line Line Lin				0.005		+												!	1	1						!		1			-
**************************************		-	0.013	0.1		+													+	+					-						_
Marchine	Metals, Total	LEAD		0.015	0.015	+			0.005 U				0.005 U				0.005 U		+	+	0.005 U	0.005 U			0.01 U	NA					_
Marchine		MAGNESIUM				mg/L	NA	NA.	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA												
- Marical Problem 1		MERCURY		0.002		mg/L	NA	NA	NA	NA	NA	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0002 U	NA.	NA
Maria Mari		NICKEL	0.13	0.1	2	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.0472	0.04 U	0.049											
		POTASSIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
Marchian		SODIUM				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
Fertile Fert						<u> </u>																									
ACRIAN STATE		-	0.018		0.018	+									_											-					_
PRINCIPAL PROPERTIES AND ASSESSION OF THE PROPERTIES AND ASSESSMENT OF THE PROPERTIES AND ASSESSMENT OF THE PROPERTIES AND ASS						+												-	 							!					
MERCURY MER						+												-	 							-					
MERCURY	Metals, Dissolved					+													+	+											_
NCREL 0.13 0.1 22 mgl 0.04 1 NA						+													+	+											_
2NG 0.96 2 31 mg 0.069 0.05 0.069 0.05 0.069 0.07 0.083 0.076 NA			0.13																+	+											_
ALKALINITY		ZINC							0.086									-	1	+						1		1			-
AMMONIA AS N 15 30 30 mg L 3.3 4.3 6.4 4 6.7 11 13 7.6 5.4 3 9.5 NA 22 12 14 14 15 8.5 16 18 18 13 1.4 4.4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		ALKALINITY				_	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	_											
BICARBONATE mg L NA		ALKALINITY, TOTAL (AS CACO3)				+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
ARBONATE mg NA		AMMONIA AS N	15	30	30	mg/L	3.3	4.3	6.4	4	6.7	11	13	7.6	5.4	3	9.5	NA	32	12	14	14	15	8.5	16	18	18	13	1.4	4.4	8
CONDUCTIVITY .		BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
CONDUCTIVITY Unificial NA	Miscellaneous	CARBONATE					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
NITRITE (AS N)		CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
SULFATE mg/L NA		NITRATE (AS N)		10		mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
SCLIDS, TOTAL DISSOLVED mgL NA		,				_																									
					-	+-												-	 							-					
ONLAS (A-HUNELAPINGENEENE Ugit NA	01/00-					_															1	1					1	1			
	SVUCS	1,4-DICHLOHOBENZENE			1	ug/L	NA.	NA	NA	NA	NA	NA.	NA	NA	NA.	NA	NA	NA	NA NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA.

Note:

| Shaded cell indicates comparison standard used in data evaluation.
| Indignighted cell indicates analytical result exceeds comparison criteria.
| Bold and Risk feet indicates analytical result exceeds background value.
| Bold and Risk feet indicates analytical result exceeds background value.
| No -Re constituents os standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C
| NO -Re constituents detected above the laboratory minimum detection limit.
| J. Indicates constituent was not detected above value shown.
| J. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| W. Indicates constituent was not detected at an estimated value.
| Monitoring wells MM-38, PDMM-88, PDMM-38, PDMM-318, PDMM-3

				Locat	ion:										PDMW-32F	1											PDI	/W-33R							PDMW-3:	3R2					PDMW-33T
				Sample D	ate: 2/23/2000	5/16/2000	8/22/2000	1/9/2001	7/16/2001	2/5/2002	9/12/2002	2/6/2003 6/26/2	03 1/30/20	04 7/22/2004	3/8/2006	4/4/2008 7/2	22/2008	10/9/2008 12/7/20	09 6/19/20	10 6/16/2011	12/12/2013	/4/2014 1	11/6/2014	5/19/2015	11/11/2015	9/10/2002 2	4/2003 6/25/2003	1/29/2004	7/22/2004	3/8/2006 4/4/	1008 7/21/200	10/9/2008	12/5/2009	6/17/2010	6/14/20	11 12/11	1/2013 6/-	5/4/2014	11/4/2014 5/2	0/2015 11/11/	2015 11/5/1997
				Sample Ty	/pe: Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal Norm	al Norma	Normal	Normal	Normal N	lormal	Normal Norm	l Norma	al Normal	Normal	Normal	Normal	Normal	Normal	Normal N	ormal Normal	Normal	Normal	Normal No	mal Norma	l Normal	Normal	Normal	Normal	Dup No	rmal N	Normal	Normal No	ormal Nort	mal Normal
				Sample	PDMW- ID: 32R_2/23/20	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- 32R_9/12/20	PDMW- PDM	/- PDMW	/- PDMW-	PDMW-	PDMW- P	PDMW-	PDMW- PDM\ 2R_10/9/20 32R_12/	/- PDMV	DIM W-32H-	PDMW- 32R_12/12/2 32	PDMW- R_060420 32	PDMW- R_110620 3:	PDMW- 32R_051920 3	PDMW-	PDMW- F	DMW- PDMW- 1_2/4/200 33R_6/25/2	PDMW-	PDMW- 0 33R_7/22/20	PDMW- PD 33R_3/8/200 33R2	IW- PDMW	PDMW- 1/2 33R2_10/9	PDMW-	PDMW- i/2 33R2_6/17/2	PDMW- 33R2- 061411	Dup-4- 061411 PD 33R2	MW- P	PDMW-	PDMW- PE	MW- PDN	IW- PDMW- 11112 33T_11/5/19
				Sample	00	00 00	00 00	1	01	2 2	02	3 03	04 04	04 04	6 6	8 8	08	08 09	10	061611	013	14	14	15	15		3 03	04 04	04 04	6 (8 008	008	009	010	061411	061411	013	014	014	015 01	97
Method Gro	p Analyte	Background	Type 3 RRS	Type 4 RRS Un	its Result	Result	Result	Result	Result	Result	Result	Result Resu	lt Resul	t Result	Result	Result F	Result	Result Resu	t Resu	lt Result	Result	Result	Result	Result	Result	Result F	Result Result	Result	Result	Result Re	ult Resul	Result	Result	Result	Result	Result Re	sult R	Result	Result Re	esult Res	ult Result
	ACENAPHTHENE	1	2000	ug	/L 1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U 0.2 I	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U	0.19 U 0.19	J 0.19 U	U NA	9.8 U	9.9 U	NA	NA	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.28	0.2 U 0.1	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA	NA 9.	.5 U	9.7 U	NA	NA N	1 U
	ACENAPHTHYLENE	1.4	1	510 ug	/L 1 U	1 U	1 U	1 U	1 U	NA	0.2 U	0.2 U 0.2 I	_		0.2 U	 	0.2 U	0.19 U 0.19		_		9.9 U	NA	NA	NA		0.2 U 0.2 U	0.2 U	0.2 U	_	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA			9.7 U		NA N	
	ANTHRACENE	0.2	0.2	5100 ug	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U	 	0.2 U	0.19 U 0.19		_	9.8 U	9.9 U	NA	NA	NA		0.2 U 0.2 U	0.2 U	0.2 U	_	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA			9.7 U	NA	NA N	
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	NA	0.2 U	0.2 U 0.2 I		_	0.2 U	 	0.2 U	0.19 U 0.19				9.9 U	NA NA	NA	NA NA		0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1		0.19 U	0.19 U	0.19 U	NA			9.7 U	NA	NA N	
	BENZO(A)PYRENE BENZO(B)FLUORANTHENE	0.2	0.2	0.39 ug	/L 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U 0.2 U	+	0.2 U 0.2 U	0.19 U 0.19 0.19 U 0.19		_	9.8 U	9.9 U 9.9 U	NA NA	NA NA	NA NA		0.2 U 0.2 U 0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.1	9 U 0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	NA NA		_	9.7 U 9.7 U		NA N	
	BENZO(G,H,I)PERYLENE			·- uc	/L NA	NA.	NA.	NA.	NA.	NA.	0.2 U	0.2 U 0.2 I	_	_	0.2 U		0.2 UJ	0.19 U 0.19			9.8 U	9.9 U	NA.	NA.	NA.		0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1		0.19 U	0.19 U	0.19 U	NA NA		_	9.7 U	NA NA	NA N	
	BENZO(K)FLUORANTHENE			uç	/L NA	NA	NA	NA	NA.	NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U	 	0.2 U	0.19 U 0.19	J 0.19 L	J NA		9.9 U	NA	NA .	NA		0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1		0.19 U	0.19 U		NA NA			9.7 U	NA	NA N	
	CHRYSENE	0.2	0.2	65 US	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U 0.2 I	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U	0.19 U 0.19	J 0.19 L	J NA	9.8 U	9.9 U	NA	NA	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA	NA 9.	.5 U	9.7 U	NA	NA N	A 0.2 U
PAHs	DIBENZO(A,H)ANTHRACENE		0.3	ug	/L NA	NA	NA	NA	NA	NA	0.2 U	0.2 U 0.2 I	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U	0.19 U 0.19	J 0.19 L	J NA	9.8 U	9.9 U	NA	NA	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA	NA 9.	.5 U	9.7 U	NA	NA N	A 1 U
	FLUORANTHENE	0.5	1000	ug	/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U 0.2 I	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U	0.19 U 0.19	J 0.19 L	J NA	9.8 U	9.9 U	NA	NA	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA	NA 9.	.5 U	9.7 U	NA	NA N	0.5 U
	FLUORENE	0.5	1000	ug	/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U 0.2 I	0.2 U	0.2 U	0.2 U		0.2 U	0.19 U 0.19	J 0.19 L	J NA	9.8 U	9.9 U	NA	NA	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	_	9 U 0.2 U	0.19 U	0.19 U	0.19 U	NA	NA 9.	.5 U	9.7 U	NA	NA N	
	INDENO(1,2,3-CD)PYRENE		0.4	ug	/L NA	NA	NA	NA	NA	NA	0.2 U	0.2 U 0.2 I			0.2 U		0.2 U	0.19 U 0.19	J 0.19 L		9.8 U	9.9 U	NA	NA	NA		0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.1		0.19 U	0.19 U	0.19 U	NA			9.7 U		NA N	
	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE	1		ug	/L NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U 0.2 I		-	0.2 U 0.2 U		0.2 U 0.2 U	0.19 U 0.76	J 0.38 U	_	9.8 U 9.8 U	9.9 U 9.9 U	NA NA	NA NA	NA NA		0.2 U 0.2 U 0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.1		0.19 U 0.19 U	0.76 U 0.19 U	0.38 U 0.19 U	NA NA		_	9.7 U 9.7 U		NA N	
	NAPHTHALENE	1	20	20	/L 1 U	1 U	1 U	NA 1 U	NA 1 U	NA NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U		0.2 U	0.19 U 0.19				9.9 U	NA NA	NA NA	NA NA		0.2 U 0.2 U	0.2 U	0.2 U	_	9U 0.2U		0.19 U		NA NA			9.7 U		NA N	
	PHENANTHRENE	0.22	0.2	510 US	/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U	 	0.2 U	0.19 U 0.19			 	9.9 U	NA NA	NA NA			0.2 U 0.2 U	0.2 U	0.2 U		9U 0.2U	_	0.19 U		NA NA			9.7 U		NA N	
	PYRENE	0.5	1000	ug	/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.2 U	0.2 U 0.2 I	_	_	0.2 U		0.2 U	0.19 U 0.19	_	_		9.9 U	NA	NA	-		0.2 U 0.2 U	0.2 U	0.2 U	_	9 U 0.2 U		0.19 U		NA		_	9.7 U	NA	NA N	_
	TOTAL PAHs			ug	/L ND	ND	ND	ND	ND	NA	ND	ND ND	ND	ND	ND	ND	ND	ND ND	ND	NA	ND	ND	NA	NA	NA	ND	ND ND	ND	0.28	ND N	D ND	ND	ND	ND	NA	NA I	ND	ND	NA	NA N	. ND
	BENZENE	1	5	31.2 ug	/L 1 U	1 U	1 U	1 U	1 U	NA	1 U	10 10	1 U	1 U	1 U	1 U	1 U	10 10	1 U	NA	1 U	1 U	NA	NA	NA	1 U	10 10	10	1 U	1 U 1	U 1 U	1 U	1 U	1 U	NA	NA 1	1 U	1 U	NA	NA N	A 1 U
	ETHYLBENZENE	1	700	ug	/L 1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U	NA	1 U	1 U	NA	NA	NA	1 U	10 10	1 U	1 U	1 U 1	U 1 U	1 U	1 U	1 U	NA	NA 1	1 U	1 U	NA	NA N	A 1 U
	p/m-XYLENE			ug	/L 1 U	1 U	1 U	1 U	1 U	NA	NA	NA NA	NA	NA	NA	+	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA N		NA	NA	NA	NA	NA 1	NA	NA	NA	NA N	
	METHYLENE CHLORIDE			ug	/L NA	NA 1 II	NA	NA 1 II	NA 1 II	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 1		NA NA	NA	NA	NA	NA 5	5 U NA	NA NA	NA	NA N	
VOCS	TOLUENE		1000	1900	/L 1U	10	111	10	10	NA NA	111	111 111	111	1 U	1 U	+	1 U	1 U 1 U	_	_	1 U	1 U	NA NA	NA NA	NA.	111	1U 1U	1 U	1 U	1 U 1		111	111	1 U	NA NA	NA 1	111	111		NA N	
	XYLENES (TOTAL)	2	10000	ug	/L 1U	10	10	1 U	1 U	NA.	2 U	2U 2U	2 U	2 U	2 U	+	2 U	2U 2U	2 U	_	2 U	2 U	NA NA	NA	NA.	2 U	2U 2U	2 U	2 U	2 U 2	U 2U	2 U	2 U	2 U	NA NA	NA 2	2 U	2 U	NA .	NA N	
	METHYL TERT BUTYL ETHER			ug	/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	10 U	10 U	10 U	NA NA	10 U	NA	10 U	NA	NA	NA	NA	NA	NA NA	NA	NA	10 U 1	U 10 U	NA	NA	10 U	NA	NA 1	0 U	NA	NA	NA N	
	TOTAL BTEX			ug	/L ND	ND	ND	ND	ND	NA	ND	ND ND	ND	ND	ND	ND	ND	ND ND	ND	NA	ND	ND	NA	NA	NA	ND	ND ND	ND	ND	ND N	D ND	ND	ND	ND	NA	NA 1	ND	ND	NA	NA N	A ND
	ARSENIC	0.018	0.018	0.018 mg	g/L 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U 0.01	J 0.01 L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.02	J 0.02 L	J NA	0.0063	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U 0.0	1 U 0.01 U	0.01 U	0.02 U	0.02 U	NA	NA 0.0	02 U (0.02 U	0.02 U 0	02 U 0.00	U 0.01 U
	BERYLLIUM		0.004	m	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	<u> </u>	NA	NA NA	NA	_	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1		NA	NA	NA	NA	NA 1	NA	NA	NA	NA N	
	BORON			m	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	+	NA	NA NA	NA	_	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1		NA	NA	NA	NA NA	NA I	NA	NA	NA	NA N	
	CALCIUM METAL		0.005	mg	y/L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 1		NA NA	NA NA	NA NA	NA NA	NA I	NA NA	NA NA	NA NA	NA N	
	CHROMILIM	0.013	0.1	m	yl 001U	0.01.11	0.0111	0.01 U	0.01 U	NA NA	0.01 U	0.01 U 0.01	_		0.01 U	<u> </u>	0.01 U	0.01 U 0.01				0.01 U	NA NA	NA NA	NA NA		0.01 U 0.01 U	0.01 U	0.01 U	0.01 U 0.0		0.01 U	0.01 U	0.01 U	NA NA			0.01 U		NA N	
Metals, Total	LEAD	0.007	0.015	0.015 mg	y/L 0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA.	0.013	0.0079 0.005		_	0.005 U	+	0.005 U	0.005 U 0.01					0.01 U	0.01 U	0.01 U		.005 U 0.005 U	0.005 U	0.005 U		5 U 0.005 L		0.01 U		NA NA			0.01 U	0.01 U 0	01 U 0.01	
	MAGNESIUM			mg	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA 1	NA	NA	NA	NA N	-
	MERCURY		0.002	mg	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	A 0.0002 U
	NICKEL	0.13	0.1	2 m	g/L 0.12	0.092	0.04 U	0.13	0.04 U	NA	0.17	0.09 0.05	_		0.057	 	0.04 U	0.04 U 0.04	0.04 L				0.04 U	0.04 U	0.04 U		0.04 U 0.04 U	0.04 U	0.04 U	0.04 U 0.0		0.04 U	0.04 U	0.04 U	NA			0.04 U		NA N	
	POTASSIUM			m	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	+	NA	NA NA	NA	_	NA	NA	NA	NA	NA		NA NA	NA	NA	NA 1		NA	NA	NA	NA NA	NA I		NA		NA N	
	SODIUM	0.96		m	g/L NA g/L 0.74	NA 0.61	NA 0.027	NA 0.96	NA 0.16	NA NA	NA 2.1	NA NA 0.63 0.47	NA 0.63	NA 0.39	NA 0.45	<u> </u>	NA 0.2	NA NA 0.23 0.49	NA 0.02 L	_	NA 0.37	NA 0.031	NA 0.21	NA 0.11	NA 0.12		NA NA 0.02 U 0.02 U	NA 0.02 U	NA 0.02 U	0.02 U 0.0	A NA 2 U 0.02 U	0.02 U	NA 0.02 U	0.02 U	NA NA	NA 1		NA 0.02 U		NA N	
-	ZINC	0.96	0.018	0.018 mg	g/L 0.74 g/L 0.01 U	0.61 NA	0.02/ NA	0.96 NA	U. IG	NA NA	2.1 NA	0.43 NA NA	0.63 NA	0.39 NA	0.45 NA		0.2 NA	0.23 0.49 NA NA	0.02 L NA		0.37 NA	0.031 NA	0.21 NA	0.11 NA	0.12 NA		0.02 U 0.02 U	0.02 U NA	0.02 U NA	0.02 U 0.0		0.02 U NA	u.uz u	V.UZ U NA	NA NA	NA P	NA C	NA		NA N	
	BERYLLIUM		0.004	mg	yL NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	+	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA.	NA NA		A NA	NA NA	NA NA	NA NA	NA NA	NA I	NA .	NA NA		NA N	
	CADMIUM		0.005	m	g/L NA	NA	NA.	NA	NA	NA	NA	NA NA	NA	NA.	NA	NA	NA	NA NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	NA NA
Metals, Dissolved	CHROMIUM	0.013	0.1	m	g/L 0.01 U	NA.	NA.	NA	NA	NA	NA	NA NA	NA	NA.	NA	NA .	NA	NA NA	NA	NA	NA .	NA	NA	NA	NA .	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	NA NA
mans, Dissulved	LEAD	0.007	0.015		g/L 0.005 U		_	NA	NA	NA	NA	NA NA	_	_	NA	+	NA	NA NA		_		NA	NA	NA	-		NA NA	NA	NA		A NA		NA	NA	NA			NA		NA N	
	MERCURY		0.002		g/L NA	NA	NA	NA	NA	NA	NA	NA NA	_	_	NA		NA	NA NA		_	NA	NA	NA	NA	NA		NA NA	NA	NA	NA 1			NA	NA	NA			NA		NA N	
	NICKEL	0.13	0.1		g/L 0.13	0.087		0.13	NA 0.40	NA 0.50	NA NA	NA NA	_	_	NA NA	+ +	NA NA	NA NA			NA NA	NA NA	NA	NA NA	NA NA		NA NA	NA NA	NA NA		A NA		NA NA	NA NA	NA NA			NA NA		NA N	
<u> </u>	ZINC	0.96	2		g/L 0.79 g/L NA	0.58 NA	0.025 NA	0.87 NA	0.19 NA	0.59 NA	NA NA	NA NA		_	NA NA		NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA		A NA NA		NA NA	NA NA	NA NA			NA NA		NA N	
	ALKALINITY, TOTAL (AS CACO3)				y'L NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	_	_	NA.	+	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA.		A NA	_	NA NA	NA NA	NA NA		_	NA NA		NA N	
	AMMONIA AS N	15	30		g/L 0.31	6.1	13	1.2	42	NA NA	0.64	1.5 1.3	_		0.12		0.73	3.6 0.23	_	_	6.6	11	7	0.7	1.3		8.7 8.2	5.2	14		4 19	_	18	8.1	17 J			16			5 0.38
	BICARBONATE			mg	g/L NA	NA	NA.	NA	NA	NA	NA	NA NA	_	NA.	NA	+	NA	NA NA	_		NA .	NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	-
Miscellaneous	CARBONATE			mg	g/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA.	NA	NA NA	NA	NA NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	NA NA
maccilaricous	CONDUCTIVITY			uml c	nos/ m NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA	NA I	NA	NA	NA	NA N	NA NA
	NITRATE (AS N)		10		g/L NA	NA	NA	NA	NA	NA	NA	NA NA		_	NA		NA	NA NA		_				0.05 U	0.17		NA NA	NA	NA		A NA		NA	NA	NA			0.05 U		05 U 0.08	
	NITRITE (AS N)				g/I NA	NA	NA	NA	NA	NA	NA	NA NA	_	_	NA		NA	NA NA	_	_	NA	NA		0.05 U	0.05 U		NA NA	NA	NA		A NA	_	NA	NA	NA			NA		05 U 0.05	
	SULFATE SOLIDS, TOTAL DISSOLVED				g/L NA g/L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	_	NA NA		NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA N	A NA NA	_	NA NA	NA NA	NA NA		_	NA NA		NA N	
SVOCs	1,4-DICHLOROBENZENE				yL NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	_		NA NA		NA NA	NA NA					NA NA	NA NA			NA NA	NA NA	NA NA		A NA	_	NA NA	_	NA NA			NA NA		NA N	
															•		1							I_						1											

Notes:

Shaded cell indicates comparison standard used in data evaluation.

In splitighted cell indicates analytical result exceeds comparison criteria.

Bodd and Rolls feet indicates analytical result exceeds background value.

In Nivra to comparison sandards back on the Maximum Containance Level (MCL) established by the USEPA National Primary (

No. No constituents detected above the laboratory infirmum detection lines.

I indicates constituent was not detected above value shown.

I indicates constituent was not detected at an estimated value.

Uniformation instituent was not detected at an estimated value.

Uniformation instituent was not detected at an estimated value.

Monitoring wells, MMV-38, POAMW-48P, POAMW-18P, POAMW-18TP, POAMW-23P, POAMW-23P, POAMW-33P, POAMW

					Location:								PDMW-34T														PDMW-35P						
				Sam	ple Date:	11/6/1997	8/9/1999	11/17/1999	2/22/2000	5/15/2000	8/22/2000	1/10/2001	7/11/2001	2/6/2002	9/12/2002	10/9/2002	2/3/2003	6/27/2003	1/29/2004	7/23/2004	9/11/2002	2/6/2003	6/26/2003	1/30/2004	7/21/2004	3/9/2	2006	4/3/2008	7/19/2008	10/7/2008	12/7/2009	6/19/2010	6/15/2011
				Sam	ple Type:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Nor	mal	Normal	Normal	Normal	Normal	Normal	Normal
						PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-35P	PDMW-35P	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	
				S	ample ID:	34T_11/6/19 97	34T_8/9/199 9	34T_11/17/1 999	34T_2/22/20 00	34T_5/15/20 00	34T_8/22/20 00	34T_1/10/20 01	34T_7/11/20 01	34T_2/6/200 2	34T_9/12/20 02	34T_10/9/20 02	34T_2/3/200 3	34T_6/27/20 03	34T_1/29/20 04	34T_7/23/20 04	35P_9/11/20 02	35P_2/6/200 3	35P_6/26/20 03	35P_1/30/20 04	35P_7/21/20 04	Filtered_3/9 /2006	Unfiltered_3 /9/2006	35P_4/3/200 8	35P_7/19/20 08	35P_10/7/20 08		35P_6/19/20 10	PDMW-35P- 061511
Method Group	Analyte	Background	Type 3 RRS	Type 4 RR	S Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	ACENAPHTHENE	1	2000		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA .	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	ACENAPHTHYLENE	1.4	1	510	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	ANTHRACENE	0.2	0.2	5100	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	BENZO(A)PYRENE	0.2	0.2	0.39	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE				ug/L	0.5 U 0.5 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.21 U 0.21 U	0.26 U 0.26 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 UJ 0.19 UJ	NA NA
	CHRYSENE	0.2	0.2	65	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA NA
PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L	1 U	NA	NA	NA.	NA.	NA.	NA	NA.	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	FLUORANTHENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	FLUORENE	0.5	1000		ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	INDENO(1,2,3-CD)PYRENE		0.4		ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	1-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.75 U	0.38 UJ	NA
	2-METHYLNAPHTHALENE				ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA
	NAPHTHALENE	1 0.22	20	20	ug/L	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA NA	0.2 U	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 UJ	NA NA
	PHENANTHRENE PYRENE	0.22	1000	510	ug/L ug/L	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.5 U	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	NA NA	0.2 U 0.2 U	0.21 U 0.21 U	0.26 U 0.26 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 UJ 0.19 UJ	NA NA
	TOTAL PAHs			-	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	0.21 U	0.26 U	0.19 U	0.19 U	0.19 U	0.19 0.0 ND	NA NA
	BENZENE	1	5	31.2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10	NA NA	NA NA	1 U	1 U	1 U	1 U	1 U	1 W	NA NA
	ETHYLBENZENE	1	700		ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 W	NA
	p/m-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	METHYLENE CHLORIDE				ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs	o-XYLENE				ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOLUENE	1	1000	1900	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1.5 U	1 U	1 U	1 U	1 W	NA
	XYLENES (TOTAL)	2	10000		ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	2 U	2 W	NA
	METHYL TERT BUTYL ETHER TOTAL BTEX				ug/L ug/L	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA NA	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA NA	NA NA	10 U ND	10 U ND	10 U ND	NA ND	NA ND	10 LU ND	NA NA
	ARSENIC	0.018	0.018	0.018	mg/I	0.01 U	0.026	0.017 U	0.019	0.021	0.031	0.02	0.037	0.028	0.038	0.01 U	0.022	0.037	0.028	0.049	NA NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.02 U	0.02 U	NA NA
	BERYLLIUM		0.004		mg/L	0.005 U	NA .	NA .	NA.	NA.	NA	NA .	NA .	NA NA	NA .	NA .	NA NA	NA NA	NA.	NA .	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA .	NA.	NA NA	NA NA	NA NA	NA NA
	BORON				mg/L	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	0.005 U	NA .	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CALCIUM METAL				mg/L	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CHROMIUM	0.013	0.1		mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.018	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	NA
Metals, Total	LEAD	0.007	0.015	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.16	0.014	0.005 U	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.005 U	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	NA
	MAGNESIUM				mg/L	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MERCURY NICKEL	0.13	0.002		mg/L	0.0002 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	NA 0.04 U	0.04 U	0.04 U	0.04 U	NA NA	NA 0.04 U	0.04 U	0.04 U	0.04 U	NA 0.04 U	NA 0.04 U	0.04 U	NA 0.04 U	0.04 U	0.04 U	0.04 U	NA NA
	POTASSIUM	0.13	0.1		mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA NA
	SODIUM				mg/L	NA NA	NA	NA NA	NA.	NA.	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA	NA.	NA NA	NA NA	NA NA	NA NA
	ZINC	0.96	2	31	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	1.9	0.046	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.025	0.02 U	0.02 U	0.02 U	0.029	0.02 U	0.02 U	0.021	0.02 U	0.02 U	NA
	ARSENIC	0.018	0.018	0.018	mg/L	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA	NA
	BERYLLIUM		0.004		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CADMIUM		0.005		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, Dissolved	CHROMIUM	0.013	0.1		mg/L	NA	NA	0.01 U	0.01 U	NA	NA	NA	0.01 U	NA	NA	NA	NA.	NA	NA	NA .	NA .	NA	NA	NA	NA	0.01 U	NA	0.01 U	0.01 U	NA	NA	NA	NA
	LEAD	0.007	0.015	0.015	mg/L	NA NA	NA NA	0.005 U	0.005 U	NA NA	NA NA	0.005 U	0.005 U	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U	NA	0.005 U	0.005 U	NA NA	NA NA	NA NA	NA NA
	MERCURY NICKEL	0.13	0.002	2	mg/L mg/L	NA NA	NA NA	NA 0.04 U	NA 0.04 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.04 U	NA NA	NA 0.04 U	NA 0.04 U	NA NA	NA NA	NA NA	NA NA
	ZINC	0.13	2	31	mg/L mg/L	NA NA	NA NA	0.04 U	0.04 U	NA NA	NA NA	0.02 U	0.02 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.04 U	NA NA	0.04 U	0.04 U	NA NA	NA NA	NA NA	NA NA
	ALKALINITY				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ALKALINITY, TOTAL (AS CACO3)				mg/L	NA	NA	NA	NA.	NA	NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	AMMONIA AS N	15	30	30	mg/L	1.7	2.6	2.4	2.4	2.8	3.4	2	3.7	3.7	4.3	NA	3.6	3.4	3.5	5.2	26	7.9	5.5	5.2	8.4	NA	1.9	7.2	6.7	3.9	2.8	3.2 J	3.3
	BICARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous	CARBONATE				mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	CONDUCTIVITY				umhos/ cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRATE (AS N)		10		mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NITRITE (AS N)				mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SULFATE SOLIDS, TOTAL DISSOLVED				mg/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
SVOCs	1,4-DICHLOROBENZENE				mg/L ug/L	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	ı		·	1	1 -		1	1	1	1		1	1		1		ıl																

Notes:

Shaded cell indicates comparison standard used in data evaluation.

rightighted cell indicates analytical result exceeds comparison criteria.

Bold and fault tent indicates analytical result exceeds background value.

In Nara comparison standard back on the Maximum Containmant Level (MCL) established by the USEPA National Primary C

NO - No constituents detected above the laboratory minimum detection limit.

I. Indicates constituent was not detected above value shown.

I. Indicates constituent was not detected at an estimated value.

Monitoring will a MW 38, POMMY 48, POMMY 488, POMMY 118, POMMY 14TR, POMMY 23R, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 318, POMMY 319, POMMY 318, POMMY 318,

			Lo	cation:							PDMW-3	SP .													PDM	IW-37P									PDMV	V-38P			
			Sampl	e Date: 9/12/200	10/9/20	2/5/2003	6/24/2003	1/27/2004	7/21/2004	3/8/2006	4/2/2008 7/22/200	8 1	0/7/2008	12/3/2009	5/15/2010	12/14/2010	6/14/20	011 12/8/2011	9/13/2002	10/9/2002	2/5/2003	6/26/2003	1/29/2004	7/22/2004	3/8/2006	4/2/2008	7/22/	2008 10/7/	008 12/2/2	009 6/16/2010	6/14/2011	9/12/2002	2/5/2003 6/24/2003	1/27/200	7/21/2004	3/8/2006	4/4/2008 7	7/22/2008 10/7/20	08 12/2/2009
			Sampl	e Type: Norma	I Norma	al Normal	Normal	Normal	Normal	Normal	Normal Norma	Norma	Dup	Normal	Normal	Normal	Norma	al Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup Nor	nal Norr	nal Normal	Normal	Normal	Normal Normal	Norma	l Normal	Normal	Normal	Normal Norma	ıl Normal
			Sar	PDMW nple ID: 36P_9/12	/20 36P_10/9	9/20 36P_2/5/200	PDMW- 36P_6/24/2	PDMW- 0 36P_1/27/20	PDMW- 36P_7/21/20	PDMW- 0 36P_3/8/200	PDMW- PDMW 36P_4/2/200 36P_7/22	PDMW 20 36P_10/7	PDMW-36P- 20 DUP_10/7/2	PDMW- 36_12/3/200 36	PDMW- P_6/15/20	36P 12/14/2	W-36P- P	PDMW-36P- 061411FF PDMW- 36P_12082	PDMW- 0 37P_9/13/2	20 37P_10/9/20	PDMW- 37P_2/5/200	PDMW- 37P_6/26/20	PDMW- 37P_1/29/20	PDMW- 0 37P_7/22/20	PDMW- 37P_3/8/200	PDMW- 37P_4/2/200	PDMW- 37P_7/22/20	PDWM-37P PDN DUP_7/22/20 37P_10	/7/20 37P_12	/2/20 37P_6/16/2	PDMW-37P- 061411	PDMW- 38P_9/12/20	PDMW- 38P_2/5/200 38P_6/24/3	PDMW 0 38P_1/27	/20 38P_7/21/20	38P_3/8/200 38	P_4/4/200 38		7/20 38P_12/2/20
				02	02		03	04	04	6	8 08	08	08	9	10	010			02	02	3	03	04	04	6	8	80	08 0				02	3 03	04	04	6	8	08 08	
Method Group	Analyte	Background Type 3 RRS	Type 4 RRS				Result	Result	Result	Result	Result Result			Result	Result	Result Re	sult	Result Result	Result		Result	Result	Result	Result	Result	Result	Result	Result Res			Result	Result	Result Result	Result				Result Resul	
	ACENAPHTHENE ACENAPHTHYLENE	1 2000	510	ug/L 0.2 U	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.2 U 0.19 U 0.2 U	0.2 U 0.2 U	0.2 U	0.19 U 0.19 U	0.19 U 0.19 U	NA I	NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U	0.19 U 0.19 U	0.19 U 0.19 U	0.19 U 0.2 0.19 U 0.2			NA NA	0.25 0.2 U	0.2 U 0.2 U	0.2 U	_		0.19 U 0.19 U	0.2 U 0.2 U 0.2 U 0.2 U	
	ANTHRACENE	0.2 0.2	5100	ug/L 0.2 U	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U	_	0.19 U	0.19 U	NA I	NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	_		NA.	0.2 U	0.2 U 0.2 U	0.2 U		0.19 U	0.19 U	0.2 U 0.2 U	
	BENZO(A)ANTHRACENE	0.2 0.1	3.9	ug/L 0.2 U	NA.	_	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U		0.19 U	0.19 U	NA I	NA .	NA NA	NA.	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2			NA	0.2 U	0.2 U 0.2 U	0.2 U	_		0.19 U	0.2 U 0.2 U	
	BENZO(A)PYRENE	0.2 0.2	0.39	ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U 0.2 U	J 0.19 U
	BENZO(B)FLUORANTHENE	0.2 0.2	0.65	ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U 0.2 U	J 0.19 U
	BENZO(G,H,I)PERYLENE			ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 W	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 UJ 0.2 U	J 0.19 U
	BENZO(K)FLUORANTHENE			ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U 0.2 U	J 0.19 U
	CHRYSENE	0.2 0.2	65	ug/L 0.2 U		_	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U		0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U			0.19 U	0.2 U 0.2 U	
PAHs	DIBENZO(A,H)ANTHRACENE	0.3		ug/L 0.2 U	_	_	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ			0.19 U	0.19 U		NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2			NA	0.2 U	0.2 U 0.2 U	0.2 U	_			0.2 U 0.2 U	
	FLUORANTHENE	0.5 1000		ug/L 0.2 U	NA		0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U		0.19 U	0.19 U		NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2			NA	0.2 U	0.2 U 0.2 U	0.2 U		0.19 U	0.19 U	0.2 U 0.2 U	
	FLUORENE INDENO(1.2.3-CD)PYRENE	0.5 1000		ug/L 0.2 U	_		0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.19 U 0.19 U	0.19 U 0.2 U 0.19 U 0.2 UJ	0.2 U	_	0.19 U*	0.19 U 0.19 U		NA NA	NA NA	NA NA	NA NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2			NA NA	0.2 U	0.2 U 0.2 U 0.2 U 0.2 U	0.2 U		-	0.19 U	0.2 U 0.2 U	
	1-METHYLNAPHTHALENE	0.4		ug/L 0.2 U	NA NA		0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ 0.19 U 0.2 UJ	0.2 U 0.2 U		0.19 U 0.75 U	0.19 U		NA NA	NA NA	NA NA	NA NA	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.19 0	0.19 U	0.19 U	0.19 U 0.2 0.19 U 0.2			NA NA	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	_		0.19 U 0.19 U	0.2 U 0.2 U 0.2 U 0.2 U	
	2-METHYLNAPHTHALENE			ug/L 0.2 U	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ	0.2 U	_	0.19 U	0.19 U		NA.	NA NA	NA.	NA.	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2			NA.	0.2 U	0.2 U 0.2 U	0.2 U		0.19 U	0.19 U	0.2 U 0.2 U	
	NAPHTHALENE	1 20	20	ug/L 0.2 U	NA.	_	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 UJ	0.2 U	_	0.19 U	0.19 U	NA I	NA .	NA NA	NA.	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	_		0.19 U	0.2 U 0.2 U	
	PHENANTHRENE	0.22 0.2	510	ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U 0.2 U	J 0.19 U
	PYRENE	0.5 1000		ug/L 0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	NA I	NA	NA NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U 0.2	U 0.19	U 0.19 U	NA	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.2 U 0.2 U	0.19 U
	TOTAL PAHs			ug/L ND	NA	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	NA I	NA	NA NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND N) NE	ND	NA	0.25	0.2 ND	ND	ND	ND	ND	ND ND	ND
	BENZENE	1 5	31.2	ug/L 1 U	NA	1 U	1 U	1 U	1 U	1 U	1U 1U	1 U	1 U	1 U	1 U	NA I	NA	NA NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	J 11	1 U	NA	1 U	10 10	1 U	1 U	1 U	1 U	10 10	1 U
	ETHYLBENZENE	1 700		ug/L 1 U	NA		1 U	1 U	1 U	1 U	1U 1U	1 U	1 U	1 U	1 U	NA I	NA	NA NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1	_	_	NA	1 U	10 10	1 U	_	1 U	1 U	10 10	1 U
	p/m-XYLENE			ug/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	. NA	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	METHYLENE CHLORIDE			ug/L NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
VOCs	TOLUENE	1 1000	1000	ug/L NA	NA NA		NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	NA	NA 111	NA 1 U	NA 1.II	NA I	NA NA	NA NA	NA 1 U	NA NA	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA 111	NA 111	NA 111	NA N		NA 1 U	NA NA	NA 1 U	NA NA	NA 1 U	NA 1 U	NA 1 U	NA 1 U	NA NA	NA 111
	XYLENES (TOTAL)	2 10000	1500	ug/L 10	NA.	2 U	2 U	2 U	2 U	2 U	211 211	211	2 U	2 U	2 U	NA I	NA.	NA NA	211	NA NA	2 U	2 U	2 U	2 U	211	211	211	2 U 2			NA.	211	2U 2U	2 U	2 U	2 U	2 U	20 20	2 U
	METHYL TERT BUTYL ETHER			ug/L NA	NA.	_	NA NA	NA NA	NA.	10 U	10 U 10 U	NA.	NA NA	NA NA	10 U	NA I	NA .	NA NA	NA NA	NA NA	NA .	NA NA	NA NA	NA.	10 U	65	10 U	10 U N	. NA	10 U	NA NA	NA.	NA NA	NA.	NA NA	10 U	10 U	10 U NA	NA NA
	TOTAL BTEX			ug/L ND	NA	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	NA I	NA	NA NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND N) NE	ND	NA	ND	ND ND	ND	ND	ND	ND	ND ND	ND
	ARSENIC	0.018 0.018	0.018	mg/L 0.064	0.01 U	J 0.013	0.018	0.013	0.018	0.01 U	0.01 0.01 U	0.032	0.03	0.02 U	0.02 U	0.018 U 0.0)72 U	NA 0.018 U	0.057	0.032	0.036	0.028	0.031	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01	U 0.02	U 0.02 U	0.018 U	0.014	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01 U	U 0.02 U
	BERYLLIUM	0.004		mg/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA.	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	BORON			mg/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	CADMIUM	0.005		mg/L NA	NA	_	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N			NA	NA	NA NA	NA	NA	NA	NA	NA NA	_
	CALCIUM METAL			mg/L NA	NA	_	NA	NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	_	_	NA	NA	NA NA	NA	NA	NA	NA	NA NA	_
Metals, Total	CHROMIUM	0.013 0.1 0.007 0.015	0.015	mg/L 0.01 U	J NA	_	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.01 U 0.005 U 0.005 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U	0.01 U 0.01 U	NA I	NA NA	NA NA	0.039	NA NA	0.01 U 0.005 U	0.01 U 0.0067	0.01 U 0.005 U	0.01 U	0.01 U	0.01 U 0.005 U	0.01 U 0.005 U	0.01 U 0.01 0.005 U 0.00	-		0.01 U	0.01 U 0.005 U	0.01 U 0.01 U 0.005 U 0.005 U	0.01 U 0.005 L				0.01 U 0.01 U 0.005 U 0.005 U	
metals, rotal	MAGNESIUM	0.007 0.015	0.015	mg/L 0.005 C	NA NA	_	0.005 U	0.005 U	0.005 U	0.005 G	NA NA	0.005 C	0.005 U	0.01 U NA	NA.		NA NA	NA NA	NA	NA NA	0.005 U	0.0067 NA	0.006 U	0.008 U	0.005 U	0.005 U	NA.	0.005 U 0.00			NA.	0.005 U	NA NA	0.005 C	0.005 U	0.005 U	0.005 U	NA NA	
	MERCURY	0.002		mg/L NA	NA.		NA	NA.	NA.	NA.	NA NA	NA.	NA.	NA NA	NA NA		NA .	NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA.	NA .	NA.	NA N	_	_	NA NA	NA.	NA NA	NA.	NA NA	NA NA	NA	NA NA	
	NICKEL	0.13 0.1	2	mg/L 0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA I	NA	NA NA	0.04 U	NA	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U 0.04	U 0.04	U 0.04 U	NA NA	0.04 U	0.04 U 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U 0.04 U	U 0.04 U
	POTASSIUM			mg/L NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA NA
	SODIUM			mg/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	ZINC	0.96 2	31	mg/L 0.095	NA	0.02 U	0.065	0.057	0.02 U	0.02 U	0.038 0.02 U	0.053	0.06	0.048	0.02 U	NA I	NA	NA NA	0.22	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U 0.00	U 0.02	U 0.02 U	NA	0.045	0.02 U 0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U 0.02 U	U 0.02 U
	ARSENIC	0.018 0.018	0.018	mg/L NA	NA	_	NA	NA	NA	NA	NA NA	NA	NA	NA NA	0.021		NA	0.072 U 0.018 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	_		NA	NA	NA NA	NA	NA	NA	NA	NA NA	
	BERYLLIUM	0.004		mg/L NA	-	-	NA	NA	NA	NA	NA NA	NA	_	NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		. NA		NA	NA	NA NA	NA	NA	NA	NA	NA NA	
	CADMIUM	0.005 0.013 0.1		mg/L NA	NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	0.01 U		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N	_		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
Metals, Dissolved	LEAD	0.013 0.1 0.007 0.015	0.015	mg/L NA		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			0.01 U		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		. NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	
	MERCURY	0.002		mg/L NA		_	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA		NA .	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N	_	_	NA NA	NA NA	NA NA	NA NA	_	NA NA		NA NA	
	NICKEL	0.13 0.1		mg/L NA		_	NA	NA NA	NA	NA	NA NA				0.04 U		NA	NA NA	NA	NA NA	NA	NA NA	NA NA	NA.	NA	NA NA	NA.		N/	_	NA NA	NA	NA NA	NA.		NA NA		NA NA	
	ZINC	0.96 2	31	mg/L NA	NA	NA NA	NA.	NA	NA	NA	NA NA	NA	NA	NA	0.02 U	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	. NA	NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	ALKALINITY			mg/L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	N/	. NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA
	ALKALINITY, TOTAL (AS CACO3)			mg/L NA	_	_	NA	NA	NA	NA	NA NA	NA	_	NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		. NA		NA	NA	NA NA	NA		NA		NA NA	
	AMMONIA AS N	15 30	30	mg/L 12		_	3.8	4.8	9.2	3.9	7.5 3.7			3	6.8		NA	NA NA	16	NA	21	15	19	7.4	1.1	1.9	7.9		0.6			15	17 10	13	_		8.6	13 13	
	BICARBONATE			mg/L NA		_	NA	NA	NA	NA	NA NA	NA		NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N			NA	NA	NA NA	NA	_	NA	NA	NA NA	
Miscellaneous	CARBONATE			mg/L NA umhos/		_	NA	NA	NA	NA	NA NA	NA	_	NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N			NA	NA	NA NA	NA		NA	NA	NA NA	
	CONDUCTIVITY NITRATE (AS N)			umhos/ cm NA		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N			NA NA	NA NA	NA NA	NA NA	_	NA NA		NA NA	
	NITRATE (AS N) NITRITE (AS N)	10		mg/L NA mg/l NA		_	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N	. NA		NA NA	NA NA	NA NA	NA NA		NA NA		NA NA	
	SULFATE	1		mg/L NA	_	_	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		. NA			NA NA	NA NA	NA NA	_	NA NA		NA NA	
	SOLIDS, TOTAL DISSOLVED			mg/L NA		_	NA	NA	NA	NA	NA NA	NA	_	NA	NA		NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		. NA		NA	NA	NA NA	NA		NA	NA	NA NA	
SVOCs	1,4-DICHLOROBENZENE			ug/L NA	_	_	NA	NA	NA	NA	NA NA		_	NA	NA		NA	NA NA	NA	NA	NA	NA	NA		NA	NA	NA		. NA	_		NA	NA NA	NA				NA NA	
											· · · · · · · · · · · · · · · · · · ·																						· · · · · · · · · · · · · · · · · · ·						

Notes:

| Shaded cell indicates comparison standard used in data evaluation.
| "gligified cell indicates analytical result exceeds comparison criteria.
| Boald and fasile toor includes analytical result exceeds background value.
| In Nata comparison standard based on the Maximum Containant Level (MCL) satablished by the USEPA National Primary C
| No- No constituents detected above the laboratory minimum detection limit.
| Undidates constituent was not detected above value shown.
| Indicates constituent was not detected above value shown.
| Undicates constituent was not detected at an estimated value.
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Part		Location	1:	PDMW-	39			PDM	W-40P				PDMW-40R					PDMW-4	1				PDMW-42				PDI	MW-43				PDMW-	45	
No.		Sample Date	9/11/2002 2/7	7/2003 6/26/20	03 1/30/2004 7/2	2/2004 9/10/2	2002 2/5/20	003 6/24/2003	1/27/2004 7/20/2004	3/8/2006 4/3/2008	7/20/2008	10/7/2008 12/5/2009	6/17/2010 12/	15/2010 6/16/20	011 12/7/2011	1 11/5/2014	2/4/2003	6/25/2003 1/27/200	7/21/2004	3/8/2006	9/13/2002 2/3/2003	6/24/2003	1/27/2004 7/21/2004	3/9/	2006 9/13/2	2002 2/3/200	03 6/24/2003	1/27/2004	7/20/2004 3/8/200	6 11/14/2002	2 2/7/2003	6/27/2003 1	1/29/2004 7/22/	/2004 4/3/2006
The column		Sample Type	: Normal No	iormal Norma	al Normal N	ormal Norm	mal Norm	nal Normal	Normal Normal	Normal Normal	Normal	Normal Normal	Normal N	Iormal Norm	al Normal	Normal	Normal	Normal Norma	Normal	Normal	Normal Normal	Normal	Normal Normal	Normal	Dup Norr	mal Norma	al Normal	Normal	Normal Norma	l Normal	Normal	Normal	Normal Nor	mal Normal
Section Sect			PDMW- pr	DMW PDMW	/- PDMW- PI	DMW- PDM	/W- PDM\	W- PDMW-	PDMW- PDMW-	PDMW- PDMW-	PDMW-	PDMW- PDMW-	PDMW- P	DMW- PDMW	PDMW-	PDMW-	PDMW.	PDMW- PDMW	PDMW-	DDMW.	PDMW- PDMW	PDMW-	PDMW- PDMW-	DDMW	PDMW-42 PDM	IW- PDMM	, PDMW-	PDMW-	PDMW- PDMW	PDMW-	DDMW.	PDMW-	PDMW- PDI	MW- DDMW
		Sample ID	20 0/11/200 F	20 6/26/	200 39_1/30/200 39_3	7/22/200 40P_9/1 4 02	/10/20 40P_2/5	5/200 40P_6/24/20	40P_1/27/20 40P_7/20/20	40P_3/8/200 40R_4/3/20 6 8	0 40R_7/20/20 08	40R_10/7/20 40R_12/5/3	20 40R 6/17/20 40R	12/15/2	40R_12072	20 40R_110520	41_2/4/2003	1_6/25/200 41_1/27/2	00 41_7/21/200 4	1_3/8/2006	42_9/13/200 2 42_2/3/200	3 42_6/24/200 3	42_1/27/200 42_7/21/200 4 4	42_3/9/2006	(DUP)_3/9/2 43_9/1			43_1/27/200	12 7/20/200	AE 11/14/2	DO FDIMW	45_6/27/200 45 3	5_1/29/200 45_7/2 4	45_4/3/2006
	Method G	pup Analyte Background Type 3 RRS Type 4 RRS Units	Result R	Result Resul	t Result R	esult Resu	sult Resu	ult Result	Result Result	Result Result	Result	Result Result	Result F	Result Resu	It Result	Result	Result	Result Result	Result	Result	Result Result	Result	Result Result	Result	Result Res	ult Resul	lt Result	Result	Result Resul	t Result	Result	Result	Result Res	sult Result
					J 0.2 U					0.19 U 0.2 U				NA NA	NA.	10 U			0.2 U	0.2 U	140 91	54	20 31	57	28 34	0 110	100	0.2 U	89 280	NA.		0.2 U		2 0.19 U
		ACENAPHTHYLENE 1.4 1 510 ug/L	0.31 U (0.2 U 0.83 U	J 0.2 U	4 U 0.2 I	U 0.2 U	U 0.2 U	0.2 U 0.2 U	0.19 U 0.2 U	0.19 U	0.19 U 1.9 U	0.19 U	NA NA	NA	10 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	20 U 20 U	2.1	1 8 U	0.94 U	5 81	U 2 U	2 U	0.2 U	2 U 3.8 U	NA	0.2 U	0.2 U	0.2 U 0.2	2 U 0.19 U
		ANTHRACENE 0.2 0.2 5100 ug/L	4.3	0.7 0.83 U	J 0.2 U	4 U 4.4	4 0.98	8 0.3	4.3 0.55	0.68 0.2 U	0.19 U	0.19 U 1.9 U	0.19 U	NA NA	NA	10 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	20 U 20 U	4.9	2.8 8 U	4.3	0.38 U 14	4 4.1	2.4	0.38	2.4 14	NA	0.2 U	0.2 U	0.2 U 0. -	46 0.19 U
		BENZO(A)ANTHRACENE 0.2 0.1 3.9 ug/L	0.31 U	0.2 U 0.83 U	J 0.2 U	4 U 0.2 I	U 0.2 U	U 0.2 U	0.2 U 0.2 U	0.19 U 0.2 U	0.19 U	0.19 U 1.9 U	0.19 U	NA NA	NA	10 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	20 U 20 U	1.4	2.8 8 U	0.94 U	0.38 U 8 I	U 2 U	2 U	0.2 U	2 U 3.8 U	NA	0.2 U	0.2 U	0.2 U 0.2	: U 0.19 U
Fine column									l	0.19 U 0.2 U	+			NA NA	NA		_		0.2 U			1 U		0.94 U	0.38 U 8	U 2 U	2 U	0.2 U		NA				
Separate and the separa			0.31 U (0.2 U 0.83 U					l	0.19 U 0.2 U	+		+	NA NA	NA	10 U	_		0.2 U			1 U		0.94 U	0.38 U 8 I	U 2 U	2 U	0.2 U	2 U 3.8 U	NA	+ +	0.2 U		
Mathematical Amplitude			0.31 U (0.2 U 0.83 U					l	0.19 U 0.2 U	+		+	NA NA	NA NA	10 U	_		0.2 U			10		0.94 U	0.38 U 8 I	U 2U	211	0.2 U	2U 3.8U	NA NA		0.2 U		
			0.31 U (0.19 U 0.2 U				NA NA	NA NA	10 U			+			1.4				U 2U	20	0.2 U		NA.	+	0.2 U		
	PAHs								 	0.19 U 0.2 U	-		+	NA NA	NA.							10				U 2U	2 U			NA.	+			
			1.1 (0.2 U 0.83 U	J 0.2 U				0.35 0.2 U	0.19 U 0.2 U	0.19 U		+	NA NA	NA	10 U			+ +	0.2 U	20 U 20 U	14		6.9	5.4 13	3 4.1	3	0.21	2 U 14	NA	0.2 U			.48 0.19 U
		FLUORENE 0.5 1000 ug/L	2.4	0.2 U 0.83 U	J 0.2 U	41 3	0.22	2 0.2 U	0.28 0.2 U	0.19 U 0.2 U	0.19 U	1.7 1.9 U	3	NA NA	NA	10 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	73 30	21	8.7 14	18	0.38 U 13	0 24	25	0.2 U	3.3 120	NA	0.2 U	0.2 U	0.2 U 2	.1 0.19 U
		INDENO(1,2,3-CD)PYRENE 0.4 ug/L	0.31 U (0.2 U 0.83 U	J 0.2 U	4 U 0.2 I	!U 0.2 L	U 0.2 U	0.2 U 0.2 U	0.19 U 0.2 U	0.19 U	0.19 U 1.9 U	0.19 U	NA NA	NA	10 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	20 U 20 U	10	0.4 U 8 U	0.94 U	0.38 U 8 I	U 2 U	2 U	0.2 U	2 U 3.8 U	NA	0.2 U	0.2 U	0.2 U 0.2	2 U 0.19 U
										0.19 U 0.2 U	+				NA				0.2 U			27		23		0 33	28	0.2 U	7.7 36	NA				
									l	0.19 U 0.2 U	+				NA		_		0.2 U							1 2	_	0.2 U		NA		0.2 U		
94. 14. 14. 14. 14. 14. 14. 14. 14. 14. 1										0.19 U 0.2 U	1															U 12				NA .		0.2 U		
Mathematical Registration						_	_			0.19 U 0.2 U	+					-			+ +			24		22		29	14	1	3.6 62	NA NA	+ +	0.2 U		
			-		ND ND				l	0.68 ND	-	6.1 5.6	+		NA NA	ND ND	ND		ND			164.3		224.7		2.3 8 220.5	182.1	0.59	106 535.6	NA NA	ND	ND ND		
			1 U		1 U					10 10	-	10 10	+		NA NA	NA.	10		1 U	1 U	6 4.3	1.7		1.6		5 7.8		1 U		NA.	10	1 U		
			1 U	10 10	1 U	10 10	U 1 U	J 1U	10 10	10 10	+	10 10	1 U	NA NA	NA	NA	1 U		1 U	1 U	1.9 1.4	1 U	10 10	1 U	1 U 1.9	9 1.1	1 U	1 U	10 10	NA	1 U	1 U	1 U 1	U 1 U
Section Sect		p/m-XYLENE · · · · · ug/L	NA	NA NA	NA NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA.	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA N	A NA	NA	NA	NA NA	NA	NA	NA	NA N	iA NA
		METHYLENE CHLORIDE ug/L	NA	NA NA	NA NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA NA	A NA	NA	NA	NA NA	NA	NA	NA	NA N	IA NA
	VOCs	o-XYLENE ug/L	NA	NA NA	NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA NA	A NA	NA	NA	NA NA	NA	NA	NA	NA N	A NA
			1 U	10 10	1 U	1U 1U	U 1 U	J 1 U	10 10	1 U 1.7 U	1 U	10 10	1 U	NA NA	NA	NA	1 U	1 U 1 U	1 U	1 U	1.8 1.5	1 U	10 10	1 U	1 U 4	4 1	1 U	1 U	1 U 1 U	NA	1 U	1 U	1 U 1	U 1 U
		,	2 U	2 U 2 U	2 U			J 2 U		2 U 2 U				NA NA	NA	NA			2 U	2 U	17 26	11		2 U	2.1 2.1	8 6.4	2 U	2 U	2 U 2 U	NA.	2 U	2 U		
			NA ND	NA NA	NA ND			NA NA		10 U 10 U			+	NA NA	NA NA	NA NA			NA ND	10 U	NA NA	NA 12.7		10 0	10 U N/	A NA		NA ND		NA NA	NA ND	NA ND		
			NA 0	0.01 U 0.01 U	J 0.01 U 0			U 0.01 U		0.01 U 0.01 U				NA NA	NA NA				0.01 U	0.01 U	0.029 0.023	0.022		0.01 U	0.01 U 0.01	I U 0.01 U		0.01 U	0.01 U 0.01 L	0.031	0.012	0.031		
			NA NA	NA NA	NA NA	NA NA	A NA	NA NA	l	NA NA	+	NA NA	NA NA	NA NA	NA	NA	NA.	NA NA	NA NA	NA	NA NA	NA .		NA.	NA NA	A NA	NA.	NA	NA NA	NA.	NA.	NA NA		
		BORON mg/L	NA NA	NA NA	NA NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA N	A NA	NA	NA	NA NA	NA	NA	NA	NA N	IA NA
		CADMIUM 0.005 mg/L	NA NA	NA NA	NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA N	A NA	NA	NA	NA NA	NA	NA	NA	NA N	A NA
		CALCIUM METAL mg/L	NA NA	NA NA	NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA NA	A NA	NA	NA	NA NA	NA	NA	NA	NA N	A NA
			NA 0	0.01 U 0.01 U	J 0.032 0	.01 U 0.01				0.01 U 0.01 U					NA				0.01 U	0.01 U	0.01 U 0.01 U	0.01 U		0.01 U	0.01 U 0.01	I U 0.01 U	J 0.01 U			NA.	0.01 U			
Marchasses Mar	Metals, Total		1 1 1					_			+	-	+		NA	-			0.005 U			0.005 U		0.005 U	0.005 U 0.00	5 U 0.005 L	U 0.005 U	0.018		NA.	0.005 U	0.005 U		
			NA NA												NA NA	-			NA NA	NA NA		NA NA		NA NA	NA N	A NA	NA NA	NA NA		NA NA	NA NA	NA NA		
			NA O												NA NA	_			+	0.0411		0.04.11		0.0411	0.0411 0.04			0.0411		NA.	+	0.0411		
Final and transform			<u> </u>						<u> </u>						NA NA															NA NA				
		SODIUM mg/L	NA NA	NA NA	NA NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA.	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA NA	A NA	NA	NA	NA NA	NA.	NA	NA	NA N	JA NA
		ZINC 0.96 2 31 mg/L	NA (0.052 0.02	0.077 0	.02 U 0.02	0.02	U 0.02 U	0.02 U 0.02 U	0.028 0.02 U	0.02 U	0.02 U 0.02 U	0.02 U	NA NA	NA	NA	0.02 U	0.02 U 0.039	0.02 U	0.02 U	0.02 U 0.02 U	0.02 U	0.056 0.02 U	0.02 U	0.02 U 0.02	2 U 0.02 U	J 0.02 U	0.082	0.27 0.02 L	NA.	0.02 U	0.02 U	0.081 0.0	2 U 0.02 U
		ARSENIC 0.018 0.018 0.018 mg/L	NA	NA NA	NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA N	A NA	NA	NA	NA NA	NA	NA	NA	NA N	A NA
									l		+											NA					NA				NA	NA	NA N	A NA
日本には、日本には、日本には、日本には、日本には、日本には、日本には、日本には、																						1						+						
Ministry	Metals, Dissol	ed .													_	_												++						
Section of the control of the cont															_	_								+			_	+		_				
Part								_	 	+ + +	+		+		_									+			_	+		_		-		
ALCHISTING S								_		 														_			_	+ +		_				
AMICINAL SINGLE															_					NA		NA			NA N	A NA	NA	++		NA		NA		
Substititititititititititititititititititi		ALKALINITY, TOTAL (AS CACO3) mg/L	NA NA	NA NA	NA NA	NA NA	A NA	NA NA	NA NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA N	A NA	NA	NA	NA NA	NA	NA	NA	NA N	.A NA
ARBORATE		AMMONIA AS N 15 30 30 mg/L													_									_				0.18						
Migratification Migratific											1											1		1			_	+ +		_				
NTEATE (AS N)	Miscellaneous																					_					_	+		_		-		
NITRITE (AS N)																						1		1			_	+ +		_				
SLEFATE															_													+						
SCUIDS, TOTAL DISSOLVED mg L NA															_											_	_	_		_				
																_						1					_	+ +						
	SVOCs																																	
																			•															

Notes:

Shaded cell indicates comparison standard used in data evaluation.

"gligified cell indicates analytical result exceeds comparison criteria.

Rold and Rolk test indicates analytical result exceeds background value.

In Narac comparison standard backe on the Maximum Containmant Leve (MCL) established by the USEPA National Primary C

No. No constituents detected above the laboratory minimum detection limit.

It indicates constituent was not detected above value shown.

It indicates constituent was not detected at an estimated value.

Us indicates constituent was not detected at an estimated value.

Nonlineing sells MN 38, POMM 48, POMM 487, POMM 187, POMM 187, POMM 187, POMM 318, POMM 318, POMM 318, POMM 318, POMM 437, P

				Locatio	n: PDMW-45P	, [PDMW-	45R						PDMW-46					PDM	1W-47					PDMW-48		PDMW-4	9	PDMW-	-50		PDMW-51			PDM\	N-52		PDMW-	53
				Sample Dat		_	08 7/22/2008	10/7/20	008 6/15/201	10 12/14/20	_	011 12/11/201	13 6/3/2014	11/3/2014	5/20/2015	11/11/2015	6/4/2014			1/2015 6/4	/2014 11/4/2014	5/20/2015			5/25/2016	7/25/2016	7/25/2016 6/4/2		014 5/19/2015	5 11/11/2015		_		114 5/19/20	15 6/6/2014		5/18/2015	6/5/2			18/2015 11		15 11/11/2015
				Sample Typ	e: Normal	Norma	al Normal	Norma	al Norma	al Norma	al Norma	al Normal	Normal	Normal	Normal	Normal	Normal	Normal No	rmal No	rmal No	rmal Normal	Normal	Normal	Normal	Dup	Normal	Dup Norm	nal Norm	al Normal	Normal	Normal Normal	Normal	Normal Norma	al Norma	al Normal	Normal	Normal	Normal	Dup	Normal N	ormal I	Normal Norma	l Normal
					PDMW-	PDMW	V- PDMW-	PDMV	W- PDMW	V- PDMW	V- PDMV	, PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW-	PDMW- PD	MW- PD	MW- PE	MW- PDMW-	PDMW-	PDMW-				PDM	W- PDM\	W- PDMW-	PDMW-	PDMW- PDMW-	PDMW-	PDMW- PDMW	V- PDMV	/- PDMW-	PDMW-	PDMW-	PDMW-	DUP-	PDMW- PI	DMW- F	PDMW- PDMW	/- PDMW-
				Sample I	D: 45P_12/4/20 09	45R_4/2/ 8	/200 45R_7/22/2 08	45R_10/1 08	/7/20 45R_6/15 10	5/20 45R_12/1 010	14/2 AFD OCA	45R_12/11 013	1/2 45R_06032 14	0 45R_110320 14	45R_052020 15	45R_111120 46 15	4	6_1103201 46_0	520201 46_1 5	111201 47_0 5	604201 47_110420 4 4	1 47_0520201 5	47_1111201 5	PDMW-47	DUP-1	PDMW-47	DUP-1 48_060 4	4201 48_1104	4201 48_051920 5	01 48_111120 5	1 49_0606201 49_11042	01 49_0518201 5	50_0604201 50_1106 4 4	201 50_0519	201 51_06062	51_110620	51_051820 5	01 52_0605201 4	03_0605201 4	52_1106201 52_0 4	0518201 53 ₋	_1104201 53_05193 4 5	201 53_1111201
Method Grou	p Analyte	Backgroun	d Type 3 RRS Type	e 4 RRS Unit	s Result	Resul	It Result	Resul	ılt Result	lt Resul	lt Resul	It Result	Result	Result	Result	Result	Result	Result Re	sult Re	sult Re	sult Result	Result	Result	Result	Result	Result	Result Res	ult Resu	ılt Result	Result	Result Result	Result	Result Resul	lt Resu	t Result	Result	Result	Result	Result	Result R	lesult I	Result Result	t Result
	ACENAPHTHENE	1	2000	ug/L	0.19 U	0.19 L		0.2 U			NA.		9.4 UH	NA.	NA.	NA NA	9.6 U	NA I	NA I		.6 U NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA NA	NA.	NA .	NA .	NA NA	
	ACENAPHTHYLENE	1.4	1	510 ug/L	. 0.19 U	0.19 L	_	0.2 U	J 0.19 U	J NA	NA.	10 U	9.4 UH	NA.	NA	NA NA	9.6 U	NA I	NA I	NA 9	.6 U NA	NA.	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA NA	NA
	ANTHRACENE	0.2	0.2	5100 ug/L	. 0.19 U	0.19 L	U 0.19 U	0.2 U	J 0.2 U	NA.	NA.	10 U	9.4 UH	NA	NA	NA	9.6 U	NA I	NA I	NA 9	.6 U NA	NA.	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA NA	NA
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug/L	0.19 U	0.19 L	U 0.19 U	0.2 U	J 0.2 U	NA	NA	10 U	9.4 UH	NA.	NA	NA	9.6 U	NA I	NA I	NA 9	.6 U NA	NA	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	BENZO(A)PYRENE	0.2	0.2	0.39 ug/L	0.19 U	0.19 L	U 0.19 U	0.2 U	J 0.2 U	NA.	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA I	NA I	NA 9	.6 U NA	NA	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug/L	. 0.19 U	0.19 L		0.2 U		NA	NA	10 U		NA.	NA		9.6 U	NA I	NA I	NA 9	.6 U NA	NA	NA	NA	NA	NA	NA NA		_	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	
	BENZO(G,H,I)PERYLENE			ug/L	. 0.19 U	0.19 L		0.2 U		_		10 U	9.4 UH	NA	NA		9.6 U	NA I	NA I		.6 U NA	NA.	NA	NA	NA	NA	NA NA		_	NA	NA NA	NA	NA NA	NA.	NA	NA	NA	NA	NA.			NA NA	
	BENZO(K)FLUORANTHENE CHRYSENE	0.2	0.2	ug/L	0.19 U	0.19 L		0.2 U 0.2 U	_	NA NA		10 U	9.4 UH 9.4 UH	NA NA	NA NA		9.6 U 9.6 U	NA I			.6 U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	
PAHs	DIBENZO(A,H)ANTHRACENE	0.2	0.2	65 Ug/L	0.19 U	0.19 0		0.2 U	_	-	NA NA	10 U	9.4 UH	NA NA	NA NA		9.6 U	NA NA			.6U NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	_		NA NA	NA NA	NA NA	NA NA			NA NA	
1	FLUORANTHENE	0.5	1000	ug/L	0.19 U	0.19 L		0.2 U	_	NA NA	NA NA	10 U	9.4 UH	NA.	NA NA		9.6 U	NA I	NA I		.6U NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA.	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	
	FLUORENE	0.5	1000	ug/L	. 0.19 U	0.19 L	U 0.19 U	0.2 U	J 0.2 U	NA.	NA	10 U	9.4 UH	NA	NA	NA NA	9.6 U	NA I	NA I	NA 9	.6 U NA	NA.	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA NA	NA
	INDENO(1,2,3-CD)PYRENE		0.4	ug/L	. 0.19 U	0.19 L	U 0.19 U	0.2 U	J 0.2 U	NA	NA	10 U	9.4 UH	NA	NA	NA .	9.6 U	NA	NA I	NA 9	.6 U NA	NA.	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA
	1-METHYLNAPHTHALENE			- · ug/L	. 0.75 U	0.19 L	U 0.19 U	0.2 U	J 0.4 U	NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA	NA I	NA 9	.6 U NA	NA	NA	NA	NA	NA	NA NA	9.8 L	J NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA
	2-METHYLNAPHTHALENE			ug/L	0.19 U	0.19 L		0.2 U		NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA I	NA I		.6 U NA	NA	NA	NA	NA	NA	NA NA	9.8 L		NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	
	NAPHTHALENE	1	20	20 ug/L	0.19 U	0.19 L	U 0.19 U	0.2 U		NA	NA	10 U	9.4 UH	NA	NA	NA	9.6 U	NA I	NA I		.6 U NA	NA	NA	NA	NA	NA	NA NA		_	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	
	PHENANTHRENE	0.22	0.2	510 ug/L	0.19 U	0.19 L	U 0.19 U	0.2 U	_	NA	NA	10 U	9.4 UH	NA	NA	NA NA	9.6 U	NA I	NA I		.6U NA	NA	NA NA	NA NA	NA	NA	NA NA	9.81	_	NA	NA NA	NA	NA NA	NA .	NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA NA	
	PYRENE TOTAL PAHs	0.5	1000	ug/L	. 0.19 U	0.19 U ND	U 0.19 U	0.2 U ND	_	NA NA	NA NA	10 U	9.4 UH ND	NA NA	NA NA	NA NA	9.6 U ND	NA I	NA .		.6 U NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	BENZENE	1	5 ;	31.2 ug/L	. 1U	1 U	1 U	1 U		NA NA	NA NA	1 U	1 U	NA.	NA.	NA NA	1 U	NA NA	NA I		1 U NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	ETHYLBENZENE	1	700	- ug/L	. 10	1 U	1 U	1 U	1 U	NA	NA.	1 U	1 U	NA	NA.	NA NA	1 U	NA I	NA I	NA	1 U NA	NA.	NA	NA	NA	NA.	NA NA	1 U	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA	NA NA	NA	NA	NA.	NA	NA	NA NA	
	p/m-XYLENE			ug/L	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	METHYLENE CHLORIDE			ug/L	. NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA I	NA I	NA .	NA NA	NA	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
VOCs	o-XYLENE			ug/L	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	TOLUENE	1		1900 ug/L	. 1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	NA	NA	1 U	NA I	NA I	NA	1 U NA	NA	NA	NA	NA	NA	NA NA	1 U	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	
	XYLENES (TOTAL)	2	10000	ug/L	. 2 U	2 U		2 U		NA	NA	2 U	2 U	NA	NA	NA .	2 U	NA	NA I	NA	2 U NA	NA.	NA	NA	NA	NA	NA NA		_	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA NA	
	METHYL TERT BUTYL ETHER TOTAL BTEX	-		ug/L	. NA	10 U ND		NA ND		NA NA	NA NA	10 U ND	NA ND	NA NA	NA NA	NA NA	NA ND	NA NA	NA I	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	ARSENIC	0.018	0.018	0.018 mg/L	. 0.02 U	0.01 L	_	0.01 L	_	_	_	_	_	0.02 U	0.02 U	0.02 U	0.0211				02 U 0.02 U	0.02 U	0.02 U	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	
	BERYLLIUM		0.004	mg/L	. NA	NA	NA.	NA.	NA.	NA.	NA.	NA.	NA	NA.	NA.	NA NA	NA	NA I	NA I	NA	NA NA	NA.	NA .	NA	NA	NA	NA NA	. NA	NA NA	NA NA	NA NA	NA.	NA NA	NA.	NA	NA	NA	NA	NA.	NA	NA	NA NA	
	BORON			mg/L	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	CADMIUM		0.005	mg/L	_ NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA
	CALCIUM METAL			mg/L	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	
	CHROMIUM	0.013	0.1	mg/L	0.01 U	0.01 L		0.01 L	_		NA	0.01 U	0.01 U	NA	NA	NA	0.01 U	NA I	NA I		01 U NA	NA	NA	NA	NA	NA	NA NA			NA	NA NA	NA	NA NA	NA		NA	NA	NA	NA	NA	NA	NA NA	
Metals, Total	LEAD	0.007	0.015	0.015 mg/L	0.01 U	0.005 l		0.005 (J 0.01 L		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.	01 U 0.		01 U 0.01 U	0.01 U	0.01	NA	NA	NA	NA NA			NA	NA NA	NA	NA NA	NA.		NA	NA	NA	NA NA			NA NA	
	MAGNESIUM		0.002	mg/L	. NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA I	NA I		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	
	NICKEL	0.13	0.002	2 mg/L	0.04 U	0.04 L		0.04 L		J NA	NA NA	0.0054	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	NA NA	-	04 U NA	NA.	NA.	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	
	POTASSIUM			mg/L	. NA	NA.		NA.		NA NA	NA NA	NA NA	NA NA	NA .	NA NA	NA .	NA .	NA .	NA I		NA NA	NA.	NA	NA	NA NA	NA	NA NA			NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA	NA NA	
	SODIUM			mg/L	. NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	. NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA
	ZINC	0.96	2	31 mg/L	0.02 U	0.02 L	U 0.02 U	0.02 L	U 0.02 U	J NA	NA	0.02 U	0.02 U	NA	NA	NA	0.4	NA	NA I	NA 0.	02 U NA	NA	NA	NA	NA	NA	NA NA	0.02	U NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA
	ARSENIC	0.018		0.018 mg/L	. NA	NA	NA	NA	0.02 U	J NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	NA NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	
	BERYLLIUM		0.004	mg/L	. NA	NA		NA			_	_	NA	NA	NA	NA	NA				NA NA	NA.	NA	NA	NA	NA	NA NA		_	NA	NA NA	NA.	NA NA			NA	NA	NA	NA .			NA NA	
	CADMIUM	0.010	0.005	mg/L	. NA	NA NA	_	NA NA		_	_		NA NA	NA NA	NA NA	NA NA	NA NA				NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		_	NA NA	NA NA	NA NA	NA NA	_		NA NA	NA NA	NA NA	NA NA			NA NA	
Metals, Dissolved	LEAD	0.013	_	mg/L 0.015 mg/L	-	NA NA	_	NA NA	_	_	_	_		NA NA	NA NA	NA NA	NA NA				NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA	_	_	NA NA	NA NA	NA NA	NA NA	_		NA NA	+	NA NA	NA NA			NA NA	
	MERCURY		0.002	mg/L	-		_	NA.	_	_	_	_	_	NA NA	NA NA	NA NA	NA NA				NA NA		NA NA	NA NA	NA NA	NA NA	NA NA		_		NA NA	NA.	 	_		NA NA	+	NA NA	NA NA			NA NA	
	NICKEL	0.13		2 mg/L	-	NA	_	NA		_	_	_		NA	NA	NA	NA				NA NA		NA	NA	NA	NA	NA NA		_	NA	NA NA	NA	NA NA			NA		NA	NA.		_	NA NA	
L	ZINC	0.96		31 mg/L			_	NA	_		NA			NA	NA	NA	NA			NA	NA NA		NA	NA	NA	NA	NA NA			NA	NA NA	NA			NA			NA	NA	NA .	NA	NA NA	
	ALKALINITY			mg/L	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA I	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA
	ALKALINITY, TOTAL (AS CACO3)			mg/L				NA		_				NA	NA	NA	NA				NA NA	_	NA	NA	NA	NA	NA NA				NA NA	NA	NA NA	_	_	NA		NA	NA			NA NA	
1	AMMONIA AS N	15	30	30 mg/L				6.6			_		_	4.7	3.6		2.9				72 110		39		30	19	19 27				0.42 1.7	0.63	7.8 7.7	_	_	5.7	-	11	8.8		_	5.5 1.6	
1	BICARBONATE			mg/L	. NA		_	NA NA			_		_	NA	NA NA	NA NA	NA NA				NA NA	_	NA NA	NA NA	NA	NA	NA NA				NA NA	NA NA	+	_	_	NA NA	_	NA NA	NA NA			NA NA	
Miscellaneous	CONDUCTIVITY			mg/L umho	NA NA	+		NA NA			_	_		NA NA	NA NA	NA NA	NA NA				NA NA	_	NA NA	NA NA	NA NA	NA NA	NA NA		_	_	NA NA	NA NA	NA NA			NA NA	-	NA NA	NA NA		_	NA NA	
	NITRATE (AS N)		10	- cm	-	+		NA NA				_		0.05 U	0.05 U		0.05 U				NA NA 05 U 0.05 U		0.05 U	NA NA	NA NA	NA NA	NA NA		_	0.11	0.05 UH 0.05 U		0.05 U 0.05 L		_	_		0.05 U	0.05 U			0.05 U 0.05 U	
1	NITRITE (AS N)			mg/L	-	+		NA.			_	_		NA	0.05 U	0.05 U	NA NA				NA NA		0.05 U	NA NA	NA NA	NA NA	NA NA		_	0.11	NA NA	0.05 U				NA		_	0.05 U			NA 0.089	
	SULFATE			mg/L	_	+		NA.			_	_		NA NA	NA NA	NA NA	NA NA				NA NA		NA NA	NA NA	NA NA	NA NA	NA NA				NA NA	NA NA		_	_	NA NA		NA NA	NA.				NA NA
	SOLIDS, TOTAL DISSOLVED			mg/L	. NA	+		NA			_	_	_	NA	NA	NA	NA				NA NA	+	NA	NA	NA	NA	NA NA		_	_	NA NA	NA	NA NA			NA	-	NA	NA			NA NA	
SVOCs	1,4-DICHLOROBENZENE			- · ug/L	. NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA I	NA	NA NA	NA.	NA	NA	NA	NA	NA NA	. NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA NA	NA

Notes:

Shaded cell indicates comparison standard used in date evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Bolk test indicates analytical result exceeds background value.

Bold and Bolk test indicates analytical result exceeds background value.

Bold and Bolk test indicates analytical result exceeds background value.

No - No constituents detected above the laboratory wininum detection limit.

Lindicates constituent was not detected above value shown.

Ji indicates constituent was not detected at an estimated value.

Unindicates constituent was not detected at an estimated value.

Monitoring will a MM-3R, POMM-3R, POMM-3R, POMM-1R, POMM-1ER, POMM-3ER, POMM

				Locatio	on: RT-1	RT-2	RT-3																TMV	<i>l</i> -1															TW2
				Sample Dat	te: 10/16/2001	1/10/2002	3/8/2002	10/11/1997	8/11/1	1999	9/28/1999	11/18/1999 2/24/20	00 5/16/200	0 8/22/2000	1/10/2001	7/16/2001 2/5/2	002 9/1	10/2002 2/5/2003	6/25/2003	1/27/2004 7	7/23/2004 3/	/2006	4/3/2008	7/18/2008 10	0/5/2008	12/5/2009	6/18/2010	12/15	2010	6/15/2011	12	6/2011	12/11/2013	6/5/2014 11/5	5/2014	5/21/2015	5/21/2015 11	1/12/2015 11/12/201	015 10/11/1997
				Sample Typ	oe: Normal	Normal	Normal	Normal	Norm	mal	Normal	Normal Norma	l Normal	Normal	Normal	Normal Norr	nal N	lormal Normal	Normal	Normal	Normal Normal	Dup	Normal	Normal 1	Normal No	ormal Dup	Normal	Normal	Dup No	mal Dup	Normal	Dup	Normal	Normal Normal	Dup	Dup	Normal	Dup Normal	al Normal
					RT-	RT-	RT-	TMW-	TMM-	TMW-	TMW-	TMW- TMW	THE	71111/	71111/	THAIN THAI		TMW- TMW-	TMW-	TMW-	TMW- TMW-	TMW-1	77414/	TANK	714111	TMW-1-	TMW-	TMW-	TMW-1	w Dun	71414	DUP-	TMW-	TMW- TMW	DUP-	DUP 01 052	TMW 4 050	DUP- TMW.	TWO 40/44/4
				Sample I	ID: 1_10/16/200	2_1/10/2002	3_3/8/2002	1_10/11/199 7	1_8/11/1999 1	1_8/11/1999	1_9/28/1999	1_11/18/199 1_2/24/2	1_5/16/20	00 1_8/22/200	1_1/10/200	TMW- TM1 1_7/16/2001 1_2/5/	2002 1_9	TMW- 1/10/2002 1_2/5/2003	1_6/25/2003	1_1/27/2004 1_	7/23/2004 1_3/9/2000	(DUP)_3/9/2 006	TMW- 1_4/3/2008	TMW- 1_7/18/2008 1_1	TMW- 10/5/2008 1_12	MW- 1/5/2009 DUP_12/5/20 09	1_6/18/2010	1_12/15/201 0	DUP1_12/15/ 2010 1_06	W- DUP- 1511 1_061511	TMW- 1_1206201	02_120620	1 1_12/11/201	TMW- 01_0605201 4 TMW- 1_11052014	1_11052014	12015	12015 02	DUP- 2_1112201 5 TMW- 1_111220	- TW2_10/11/1 015 997
Method Grou	Analyte	Rackground	Type 3 RRS Type	a 4 RRS Unit	ts Result	Result	Result	Result	Result	Result	Result	Result Resul	t Result	Result	Result	Result Res	ult B	Result Result	Result	Result	Result Result	Result	Result	Result I	Result Re	esult Result	Result	Result	Result Re	ult Result	Result	Result	Result	Result Result	Result	Result	Result	Result Result	t Result
method Grou	ACENAPHTHENE	Background	2000	e 4 AAS OHIL	is nesult	1 II	1 II	5 II	22	111	NA NA	10 U 2.1 J		1 U	1 U	1 U N/	_	2 U 2 U	3.8	2 U	1U 1U	0.19 U	1.9 U			.2 U 0.2 U	1.9 U	1.9 U	0.19 U 1.		1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	
	ACENAPHTHYLENE	1.4		510 ug/L	L 1.1	1 U	1 U	5 U	1 U	10	NA NA	10 U 1 U	_		10	7.4 D N/		20 20	0.2 U	2 U	10 10	0.19 U	1.9 U			.2U 0.2U	1.9 U	1.9 U		U 1.9 U	1.9 U	1.9 U	9.2 U	9.8 U* 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	
	ANTHRACENE	0.2	0.2	5100 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	NA	2 U 0.2 U	_	_	0.2 U	0.2 U N/		2 U 2 U	0.26	2 U	10 10	0.19 U	1.9 U			.2 U 0.2 U	0.19 U	1.9 U	0.19 U 1.		1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	
	BENZO(A)ANTHRACENE	0.2	0.1	3.9 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	NA	2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U N/		2 U 2 U	0.2 U	2 U	10 10	0.19 U	1.9 U	0.2 U	0.38 U 0	.2 U 0.2 U	0.19 U	1.9 U	0.19 U 1.	U 1.9 U	1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.2 U
	BENZO(A)PYRENE	0.2	0.2	0.39 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	NA	2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U N/		2 U 2 U	0.2 U	2 U	10 10	0.19 U	1.9 U	0.2 U	0.38 U 0	.2 U 0.2 U	0.19 U	1.9 U	0.19 U 1.	U 1.9 U	1.9 UJ	1.9 UJ	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.2 U
	BENZO(B)FLUORANTHENE	0.2	0.2	0.65 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	NA	2 U 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U N/	ı	2 U 2 U	0.2 U	2 U	10 10	0.19 U	1.9 U	0.2 U	0.38 U 0	.2 U 0.2 U	0.19 U	1.9 U	0.19 U 1.	U 1.9 U	1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.2 U
	BENZO(G,H,I)PERYLENE			ug/L	L NA	NA	NA	2.5 U	NA	NA	NA	NA NA	NA	NA	NA	NA NA		2 U 2 U	0.2 U	2 U	10 10	0.19 U	1.9 U	0.2 U	0.38 U 0	.2 U 0.2 U	0.19 U	1.9 U	0.19 U 1.	U 1.9 U	1.9 UJ	1.9 UJ	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.5 U
	BENZO(K)FLUORANTHENE			ug/L	L NA	NA	NA	2.5 U	NA	NA	NA	NA NA	NA	NA	NA	NA NA	_	2 U 2 U	0.2 U	+	10 10	0.19 U	1.9 U			.2 U 0.2 U	0.19 U	1.9 U		U 1.9 U	_	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	_
	CHRYSENE	0.2		65 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.2 U	0.2 U	NA	2 U 0.2 U		0.2 U	0.2 U	0.2 U N/		2 U 2 U	0.2 U	2 U	1U 1U	0.19 U	1.9 U			.2 U 0.2 U	0.19 U	1.9 U	_	U 1.9 U		1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	
PAHs	DIBENZO(A,H)ANTHRACENE FLUORANTHENE	0.5	0.3	ug/L	L NA L 0.5 U	NA 0.5 U	NA 0.5 U	5 U	NA 0.5.U	NA 0.5 U	NA NA	NA NA 5 U 0.5 U	NA 0.5 U	NA 0.5	NA 0.5 U	0.5 U N/		2U 2U 2U 2U	0.2 U 0.2 U	2 U	10 10	0.19 U 0.19 U	1.9 U			.2 U 0.2 U	0.19 U 0.19 U	1.9 U		U 1.9 U	1.9 U	1.9 U	9.2 U 9.2 U	9.8 U 9.7 U 9.8 U 9.7 U	9.8 U 9.8 U	9.9 U 9.9 U	9.7 U	9.7 U 9.5 U 9.7 U 9.5 U	
	FLUORANIHENE	0.5	1000	ug/L	L 0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	NA NA	5U 0.5U	0.5 U	0.5 0.5 U	0.5 0	0.5 U N/		2U 2U	0.2 0	2 U	10 10	0.19 U	1.9 U			.20 0.20	0.19 U	1.9 U		U 1.9 U		1.9 U	9.2 U	9.80 9.70	9.8 U	9.9 U	9.7 U	9.7U 9.5U	
	INDENO(1,2,3-CD)PYRENE	0.5	0.4	ug/L	L NA	NA NA	NA.	2.5 U	NA NA	NA.	NA NA	NA NA	0.04 3 NA	NA.	NA.	NA NA		2U 2U	0.34 0.2 U	2 U	10 10	0.19 U	1.9 U			.20 0.20	0.19 U	1.9 U	_	U 1.9 U	1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	
	1-METHYLNAPHTHALENE			ug/L	L NA	NA NA	NA NA	NA NA	NA .	NA.	NA NA	NA NA	NA NA	NA NA	NA.	NA NA		17 17	18	17	12 22	19	15	2		1.2 1.2	0.38 U	6.3	7 6		9.7	10	12	15 12	12	11	9.7 U	11 9.5 U	
	2-METHYLNAPHTHALENE			ug/L	L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA		30 31	46 D	28	17 36	29	18	2.1	5.4 D (0.84 0.75	0.19 U	5.1	5.5	6 6.6	13	14	7	15 16	16	11	9.7 U	13 9.5 U	
	NAPHTHALENE	1	20	20 ug/L	L 1.4 J	1 U	1 U	59	54 D	1 U	NA	88 67 D	140 D	92	110 D	110 D N/		100 120	140 D	92	27 °X 69	16	72	14	27 D	6.4 6.1	1.8	33	37	3 34	52	55	5.2	39 44	40	44	40	63 26 F1	1 U
	PHENANTHRENE	0.22	0.2	510 ug/L	L 0.2 U	0.2 U	0.2 U	1 U	0.62	0.25	NA	2 U 0.54 J	1.7	1	0.69	0.35 J N/		2 U 2 U	0.46	2 U	10 10	0.19 U	1.9 U	0.2 U	0.38 U 0	.2 U 0.2 U	0.19 U	1.9 U	1.9 U 1.	U 1.9 U	1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.2 U
	PYRENE	0.5	1000	ug/L	L 0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	NA	5 U 0.5 U	_	0.53	0.5 U	0.5 U N/		2 U 2 U	0.2 U	2 U	10 10	0.19 U	1.9 U	0.2 U		.2 U 0.2 U	0.19 U	1.9 U	1.9 U 1.		1.9 U	1.9 U	9.2 U	9.8 U 9.7 U	9.8 U	9.9 U	9.7 U	9.7 U 9.5 U	0.5 U
	TOTAL PAHs			ug/L	L 2.5	ND	ND	59	56.82	0.25	NA	88 69.64			111.45	117.75 N/		147 168	208.86	137	56 127	64	105			3.44 8.05	1.8	44.4	49.5 4		74.7	79	31.3	69 72	68	66	40	87 58	ND
	BENZENE	1		31.2 ug/L	L 2.5	1 U	1 U	120	1 U	84	50 U	120 130	120	140	150	160 N/		120 110	90		25 18	14	56	47		30 21	32	52	51		NA NA	NA	58	81 80	77	48	47	51 52	
	ETHYLBENZENE	1	700	ug/L	L 2 I NA	1 U	1 U	250 NA	10	10 U 500	570 1500	250 370 490 840	490 1300	580	580 1400	650 N/		420 530 NA NA	340	390 NA	1 U 77	21 NA	1.2 NA	12 NA		1 U 1 U	1 U NA	1 U NA	1 U 1	_	NA NA	NA	160	2 U 5 U	5 U NA	1 U NA	1 U NA	1 U 1 U NA NA	1 U
	p/m-XYLENE METHYLENE CHLORIDE			ug/L	L NA	NA NA	NA NA	NA NA	5 U	50 U	1500 250 U	490 840 NA NA	1300 NA	670 NA	1400 NA	1400 N/ NA N/		NA NA	NA NA		NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA I		NA NA	NA NA	10 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
VOCs	o-XYLENE			· ug/L	L NA	1 U	NA.	NA.	10	360	50 U	460 880	620	1000	830	880 N/		NA NA	NA NA	NA NA	NA NA	NA.	NA.	NA NA		NA NA	NA.	NA.	NA I		NA NA	NA NA	NA.	NA NA	NA.	NA.	NA NA	NA NA	NA NA
	TOLUENE	1	1000	1900 ug/L	L 1U	1 U	1 U	700	1 U	280	1100	550 970	1100	730	1300	950 N/		450 880	740	750	1.4 140	76	1.5 U	11	10	10 10	1.5 U	1 U	10 1	U 1U	NA	NA	1.2	2 U 5 U	5 U	1 U	1 U	10 10	1 U
	XYLENES (TOTAL)	2	10000	· · ug/L	L 2.3	NA	2 U	1000	NA	860	1500	950 1720	1920	1670	2230	2280 N/		1500 1900	1400	1400	2 U 310	200	440 D	220	93	22 12	18	120	110 1	0 140	NA	NA	3.5	250 420	420	120	110	220 220	2 U
	METHYL TERT BUTYL ETHER			- ug/L	L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA N		NA NA	NA	NA	NA 10 U	10 U	10 U	10 U	NA	NA NA	10 U	NA	NA 1	A NA	NA	NA	20 U	20 U NA	NA.	NA	NA .	NA NA	NA
	TOTAL BTEX			- · ug/L	L 6.8	ND	ND	2070	ND	1220	3170	1870 3190	3630	3120	4260	4040 N/	ı	2490 3420	2570	2627	26.4 545	311	497.2	290	134	52 33	50	172	161 1	2 184	NA	NA	222.7	331 500	497	168	157	271 272	ND
	ARSENIC	0.018		0.018 mg/L	L 0.013	0.01 U	0.01 U	0.479	0.57	0.01 U	NA NA	0.54 0.36	0.57	0.01 U	0.01 U	0.33 N/	ı	0.35 0.43	0.34	0.33	0.32 0.37	0.36	0.058	0.082	0.045 0.	02 U 0.02 U	0.02 U	0.14		2 U 0.072 U	0.15	0.17	0.15	0.095 0.13	0.15	0.14	0.16 F1	0.12 0.15	
	BERYLLIUM		0.004	mg/L	L NA	NA	NA	0.005 U	NA	NA	NA	NA NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA NA	NA	NA	NA		NA NA	NA.	NA	NA N		NA	NA	NA	NA NA	NA.	NA	NA .	NA NA	0.005 U
	BORON			mg/L	'L NA	NA	0.2	NA	NA	NA	NA	NA NA	NA	NA	NA	NA N/		NA NA	NA	+	NA NA	NA	NA			NA NA	NA.	NA.	NA 1	_	NA	NA	NA	NA NA	NA NA	NA	NA	NA NA	NA
	CADMIUM CALCIUM METAL		0.005	mg/L	L NA	NA 140	NA 110	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA 1		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U
	CHROMILIM	0.013	0.1	mg/L	1 0.0111	0.01.11	0.0111	0.0706	0.111	0.01 U	NA NA	0.095 0.072		0.01 U	0.01 U	0.055 N/		0.061 0.075	0.056	 	0.063 0.053	0.052	0.01 U			.01 U 0.01 U	0.01 U	NA.	NA I		NA NA	NA NA	0.023	0.017 0.026	0.03	0.019	0.032	0.023 0.029	0.01 U
Metals, Total	LEAD	0.007	0.015	0.015 mg/L	L 0.024	0.0075	NA .	0.0202	0.05 U	0.005 U	NA	0.038 0.034		0.005 U	0.005 U	0.021 N/		0.025 U 0.017	0.021		0.041 0.014	0.016	0.005 U	0.005 U (0.005 U 0.	.01 U 0.01 U	0.01 U	0.01 U		4 U 0.04 U	0.05 U	0.05 U	0.01 U	0.01 U 0.01 U	0.01 U	0.01 U	0.01 U	0.01 U 0.01 U	
	MAGNESIUM			mg/L	'L 14	65	28	NA	NA NA	NA	NA	NA NA	NA	NA	NA	NA NA	_	NA NA	NA	NA NA	NA NA	NA.	NA	NA.		NA NA	NA.	NA.	NA 1		NA	NA	NA	NA NA	NA.	NA	NA .	NA NA	NA NA
	MERCURY		0.002	mg/L	L NA	NA	NA	0.0002 U	NA	NA	NA	NA NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA NA	NA	NA	NA .	NA	NA NA	NA.	NA.	NA N	A NA	NA	NA	NA	NA NA	NA.	NA	NA	NA NA	0.0002 U
	NICKEL	0.13	0.1	2 mg/L	'L 0.04 U	0.04 U	0.04 U	0.0442	0.4 U	0.04 U	NA	0.04 U 0.045	0.06	0.04 U	0.04 U	0.042 N/		0.2 U 0.057	0.045	0.2 U	0.2 UF 0.04	0.04	0.063	0.077	0.049 0.	.04 U 0.04 U	0.04 U	NA	NA 1	A NA	NA	NA	0.041	0.04 U 0.041	0.04 U	0.04 U	0.04 U	0.04 U 0.04 U	U 0.04 U
	POTASSIUM			mg/l	'L NA	NA	27	NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA
	SODIUM			mg/L	L 110	480	200	NA	NA	NA	NA	NA NA	NA	NA	NA	NA N/		NA NA	NA	NA	NA NA	NA	NA	NA		NA NA	NA	NA	NA 1		NA	NA	NA	NA NA	NA	NA	NA .	NA NA	NA
	ZINC	0.96	2	31 mg/L	L 0.02 U	0.032	0.074	0.0895	0.2	0.02 U	NA	0.1 U 0.09	0.12	0.02 U	0.02 U	0.12 N/		0.59 0.18	0.18		0.34 0.068	0.07	0.21	0.59		0.21 0.23	0.036	NA	NA N	A NA	NA	NA	0.091	0.072 0.097	0.094	0.072	0.077	0.063 0.078	
	AHSENIC	0.018	0.018	0.018 mg/L	L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.13 0.34 NA NA	0.54 NA	NA NA	NA NA	0.29 0.3 NA N/	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA N	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.01 U 0.005 U
	CADMIUM		0.004	mg/L	L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA I		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.005 U
	CHROMIUM	0.013	0.003	mg/L	L NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.023 0.067	_	NA NA	NA.	0.046 0.04	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA.	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.01 U
Metals, Dissolved	LEAD	0.007		0.015 mg/L	'L NA	NA	NA	NA	NA NA	NA	NA	0.0097 0.04			NA	0.018 0.0	_	NA NA	NA		NA NA	NA	NA			NA NA	NA.	NA	NA 1		NA	NA	NA	NA NA	NA	NA	NA .	NA NA	
	MERCURY		0.002	mg/L	L NA	NA	NA	NA	NA	NA	NA	NA NA		NA	NA	NA NA	-+-	NA NA	NA		NA NA	NA	NA			NA NA	NA.	NA	NA N	_	NA	NA	NA	NA NA	NA	NA	 	NA NA	-
	NICKEL	0.13	0.1	2 mg/L	L NA	NA	NA	NA	NA	NA	NA	0.2 U 0.043	0.061	NA	NA	0.04 U N/		NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA.	NA	NA 1	A NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	0.04 U
	ZINC	0.96	2	31 mg/L	'L NA	NA	NA	NA	NA	NA	NA	0.031 0.1	0.13	NA	NA	0.13 0.07	75	NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA.	NA	NA N	A NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	0.02 U
	ALKALINITY			mg/L	'L NA	NA	390	NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA 1	A NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA
	ALKALINITY, TOTAL (AS CACO3)			mg/L	L NA	NA	360	NA	NA	NA	NA	NA NA		NA	NA	NA N/		NA NA	NA		NA NA	NA	NA	NA .		NA NA	NA	NA	NA 1		NA	NA	NA	NA NA	NA	NA	NA .	NA NA	
	AMMONIA AS N	15	30	30 mg/L						170	NA	3500 5400	_			5300 N/		7600 5900			NA 9400	8000	1400			330 350	500	3200			4600			2600 3800	3900			3400 3600 F1	
	BICARBONATE CARBONATE			mg/L	L NA	NA NA	360 1 U	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA		NA NA	NA NA		NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA N	A NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	+
Miscellaneous	CARBONATE	1		mg/L umho	_	NA 3900	1 U 2000	NA NA	NA NA	NA NA	NA NA	NA NA	-	NA NA	NA NA	NA NA		NA NA	NA NA		NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA I		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	+
	NITRATE (AS N)		10	cm		3900 NA	3	NA NA	NA NA	NA NA	NA NA	NA NA			NA NA	NA NA	_	NA NA	NA NA		NA NA	NA NA	NA NA			NA NA	NA NA	NA NA	NA I		NA NA	NA NA	NA 88	170 120	NA 100	NA 280		NA NA NA 230 250 F1	
	NITRITE (AS N)			mg/L	_	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	_	NA NA	NA NA	NA NA		NA NA	NA NA		NA NA	NA NA	NA NA			NA NA	NA.	NA NA	NA I		NA NA	NA NA	NA NA	NA NA	NA NA	50 U		10 U 10 U	
	SULFATE			mg/L		NA NA	230	NA	NA NA	NA	NA NA	NA NA	_	NA.	NA	NA NA		NA NA	NA NA		NA NA	NA.	NA NA			NA NA	NA.	NA	NA 1		NA NA	NA NA	NA NA	NA NA	NA NA	NA .	 	NA NA	
	SOLIDS, TOTAL DISSOLVED			mg/L	L NA	NA	1100	NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA		NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA	NA	NA N	A NA	NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA
SVOCs	1,4-DICHLOROBENZENE			ug/L	L NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA N/		NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA NA	NA.	NA	NA 1	A NA	NA	NA	2 U	2 U NA	NA	NA	NA .	NA NA	NA
Notes:																																							

Notes:

Shaded cell indicates comparison standard used in data evaluation.

In splitighted cell indicates analytical result exceeds comparison criteria.

Bodd and Rolls feet indicates analytical result exceeds background value.

In Nivra to comparison sandards back on the Maximum Containance Level (MCL) established by the USEPA National Primary (

No. No constituents detected above the laboratory infirmum detection lines.

I indicates constituent was not detected above value shown.

I indicates constituent was not detected at an estimated value.

Uniformation instituent was not detected at an estimated value.

Uniformation instituent was not detected at an estimated value.

Monitoring wells, MMV-38, POAMW-48P, POAMW-18P, POAMW-18TP, POAMW-23P, POAMW-23P, POAMW-33P, POAMW

Fig. 1 Fig. 2 Fig. 3 Fig. 3 Fig. 4 Fig. 5 F					Loca	ation:							TMW-4													TM	W-4R							UMW	FIEL	ELDQC
Note 1982							7 8/10/1999	9 11/17/1999	2/23/2000	5/16/2000	8/22/2000	1/10/2001	7/16/2001	2/6/2002	9/11/2002	2/7/2003	6/25/2003	1/29/2004	7/20/2004	4/3/2008	7/20/2008	10/5/2008	12/1/2009	6/17/2010	12/14/2010	6/13/2011	12/21/2011	12/12	2/2013	6/3/2014	11/4/2014	5/19/2015	11/12/2015		6/3/2014	11/6/2014
Property of the property of					Sample	Type: Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal
The image						TMW-	TMW-	TMW-	. TMW-	TMW-	TMW-	TMW-	TMW-	TMW-	TMW-	TMW-	TMW-	TMW-			TMW-	TMW-	TMW-	TMW-	TMW-		TMW-	TMW-		TMW-	TMW-	TMW-	TMW-			
					Samp							4_1/10/2001							TMW-4_7/20/2004	TMW-4R_4/3/2008						TMW-4R-061311			DUP-2_12/12/2013					UMW_10/19/1997	FB-01_06032014	FB-01_11062014
**************************************	Method Group	Analyte	Background Type	e 3 RRS Ty	/pe 4 RRS	Units Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
		ACENAPHTHENE	1 :	2000		ug/L 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.41	0.33	0.38	0.32	0.33	0.19 U	0.19 U	0.29	0.19 U	0.32	NA	NA.	NA.	10 U	10 U	9.9 U	NA NA	NA	NA	1 U	9.8 U	9.6 U
Method 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		ACENAPHTHYLENE	1.4	1	510	ug/L 1 U	1 U	1.6	1 U	1 U	1 U	10	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	10 U	10 U	9.9 U	NA	NA	NA	1 U	9.8 U	9.6 U
				_			_			1																									9.8 U	
**************************************							_			1					-								1			1	1									
Seminorial Residual R				_			_		_				_					_									-									+
*** *** *** *** *** *** *** *** *** **			0.2	0.2	0.65	_	-		-		+			U.Z U																						
Method M							_				-		1	NA NA				_						-			-									+
Properties Pro			0.2	0.2	65	ug/L 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U																		NA	NA			+
March Marc	PAHs	DIBENZO(A,H)ANTHRACENE		0.3		ug/L 1 U	NA	NA	NA	NA	NA.	NA	NA.	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA.	NA.	10 U	10 U	9.9 U	NA	NA	NA	1 U	9.8 U	9.6 U
		FLUORANTHENE	0.5	1000		ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA.	NA.	10 U	10 U	9.9 U	NA	NA	NA	0.5 U	9.8 U	9.6 U
		FLUORENE	0.5	1000		ug/L 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.37	0.26	0.35	0.33	0.29	0.19 U	0.19 U	0.48	0.32	0.47	NA	NA	NA	10 U	10 U	9.9 U	NA	NA	NA	0.5 U	9.8 U	9.6 U
				0.4		-																														
							_		_	1	-		1					_																		
			1	20	20	-	_	_	+		+					-									1			1								+
						-	_								-																					
March Marc							_		_									_																		_
		TOTAL PAHs				ug/L ND	ND	1.6	ND	ND	ND	ND	ND	ND	0.78	1.21	0.73	0.65	0.62	ND	ND	0.77	0.32	0.79	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND
		BENZENE	1	5	31.2	ug/L 1 U	1 U	1 U	13	1 U	1 U	3.9	1 U	1 U	7.4	1 U	1 U	9.6	9.1	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	10	1 U	NA	NA	NA	1 U	1 U	1 U
		ETHYLBENZENE	1	700		ug/L 1 U	1 U	1 U	12	1.2	1 U	4.3	1 U	1 U	3.3	1 U	1 U	4	3	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	1 U
Properties Pro		p/m-XYLENE				-	1.2		_		-		1									NA				NA.	-			NA	NA		NA	NA	NA	
							-				1		1													1										
	VOCs	-		4000	4000	-	_		+		+ -																									
					1900		_	_		1						-																				
Part		,					_			NA NA																	1									
Minima		TOTAL BTEX				ug/L 7.6	1.2	ND	38.2	2.2	ND	10.6	6.1	ND	10.7	ND	2.6	15.9	17.8	ND	ND	ND	ND	ND	NA	NA.	NA.	ND	ND	ND	NA	NA	NA	ND	ND	ND
Property of the content of the con		ARSENIC	0.018	0.018	0.018	mg/L 0.01 U	0.014	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.021	0.025	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.021	0.032	0.02 U	0.02 U	0.018 U	NA.	0.018 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	0.02 U	0.02 U
Part		BERYLLIUM	(0.004	1	mg/L 0.005 U	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA .	NA.	NA	NA	NA	NA	NA	0.005 U	NA	NA
		BORON			1		-		-		+																									
			(0.005	1		_				-		1														-									
Final black			0.013	0.1	!	,	_				+		1																							+
	Metals, Total	LEAD			0.015	_	_		-	-	-																									_
		MAGNESIUM			1	mg/L NA	NA	NA	_	NA	NA		_	NA	NA	NA		_		NA	NA			NA NA	NA		-		NA				NA			
		MERCURY	(0.002	1	mg/L 0.0002 U	NA NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA NA	NA	NA NA	NA	NA	NA.	NA.	NA.	NA	NA	NA	NA	NA	ND	NA	NA NA
		NICKEL	0.13	0.1	2	mg/L 0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA.	NA.	0.04 U	0.04 U	0.04 U	NA	NA	NA	0.04 U	0.04 U	0.04 U
日本		POTASSIUM			1	mg/L NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	NA.	NA.	NA.	NA	NA	NA	NA	NA	NA	NA	
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REEL	Metals, Dissolved	LEAD	0.007	0.015	0.015	mg/L NA	NA	0.005 U	0.005 U	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005 U	NA	NA
20 20 30 30 30 30 30 30		MERCURY		0.002	1		NA			1	NA	NA	NA	NA		NA		NA		NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	ND	NA	
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SLEFATE		NITRATE (AS N)		10	1	mg/L NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA .	NA	NA	NA	NA	NA	NA	NA .	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	0.17	0.17
SCLIDS, TOTAL DISSOLIVED mg/L NA							_								-								1			_										
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	SVUUS	1,4-UICHLOHOBENZENE	· · ·		1	ug/L NA	NA	NA	NA NA	NA NA	ΝA	ΝA	NA	rwA	ruA	NA.	reA .	rvA	NA.	NA.	ΝA	NΑ	NA	NA	NA	NA.	NA.	10	10	ΝA	NA	NA.	nA	ΝA	NΑ	reA

Notes:

Shaded cell indicates comparison standard used in data evaluation.

Inglighted cell indicates analytical result exceeds comparison criteria.

Bold and Rails for indicates analytical result exceeds background value.

Bold and Rails for indicates analytical result exceeds background value.

No - No constituents detected above the laboratory minimum detection limit.

Lindicates constituent was not detected above view behave.

Lindicates constituent was detected at an estimated value.

Us indicates constituent was detected at an estimated value.

Nonitaring wells with 33 p. P.DAWN 92.00 p. DOMN-118, P.DAWN-14TR, P.DAWN-23R, P.DAWN-312R, P.DAWN-331 instilled to replace wells MW-3, P.DAWN-85, P.DAWN-87, P.DAWN-11P, P.DAWN-14TR, P.DAWN-23R, P.DAWN-30P, P.DAWN-31R, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-30P, P.DAWN-31P, P.DAWN-30P, P.DAWN-30P

Table 8 - XRF and Laboratory Results Generated During Metal-Impacted Soil Excavation Program

Area	Sample ID	Sample Date	Lead (XRF)	Lead (6010B) Type 3 RRS= 400 mg/kg	Arsenic (XRF)	Arsenic (6010B) Type 3 RRS= 38 mg/kg	Comment
	As1A-E01-3"	15-Nov-06	59.9	53	21.3	44	Excavated
	AS1A-E02-3"	20-Nov-06	67.23	91	ND	25	Confirmed to Meet Type 3 RRS
	AS1A-E03-6"	29-Nov-06	81.8	110	14.12	20	Confirmed to Meet Type 3 RRS
	AS1A-E04-3"	7-Dec-06	NA	85	15	33	Confirmed to Meet Type 3 RRS
	As1A-N01-3"	15-Nov-06	42.43	36	ND	11	Confirmed to Meet Type 3 RRS
	AS1A-N02-6"	29-Nov-06	108.95	250	16.95	110	Excavated
_	AS1A-N05-6"	1-Dec-06	NA	170	13	47	Excavated
rea	AS1A-N06-3"	6-Dec-06	NA	420	52	97	Excavated
ic ≽	AS1A-N07-3"	7-Dec-06	NA	180	17	39	Excavated
Arsenic Area 1	AS1A-N07A-3"	13-Dec-06	NA	190	NA	33	Confirmed to Meet Type 3 RRS
Ā	As1A-S01-3"	15-Nov-06	108.18	190	19.26	23	Confirmed to Meet Type 3 RRS
	AS1A-S02-1'	29-Nov-06	33.39	49	ND	5.1	Confirmed to Meet Type 3 RRS
	As1A-W01-3"	15-Nov-06	20.52	25	ND	5.3	Confirmed to Meet Type 3 RRS
	AS1A-W02-6"	29-Nov-06	16.88	21	ND	10	Confirmed to Meet Type 3 RRS
	AS1A-W03-3"	7-Dec-06	NA	100	41	41	Excavated
	AS1A-W04-3"	7-Dec-06	NA	31	ND	6	Confirmed to Meet Type 3 RRS
	AS1A-W06-3"	7-Dec-06	NA	73	35	32	Confirmed to Meet Type 3 RRS
⋖	PB1A-E01-1'	16-Nov-06	ND	24	ND	NA	Confirmed to Meet Type 3 RRS
Lead Area 1A	PB1A-FL01-2'	16-Nov-06	ND	4.6	ND	NA	Confirmed to Meet Type 3 RRS
Are	PB1A-N01-1'	16-Nov-06	14.14	8.8	ND	NA	Confirmed to Meet Type 3 RRS
gad	PB1A-S01-1'	16-Nov-06	41.85	21	ND	NA	Confirmed to Meet Type 3 RRS
ٽ	PB1A-W01-1'	16-Nov-06	30.13	17	ND	NA	Confirmed to Meet Type 3 RRS
	PB1B-E01-1'	17-Nov-06	24.05	20	ND	<1.0	Confirmed to Meet Type 3 RRS
	PB1B-E02-1'	17-Nov-06	150.98	110	ND	2.6	Confirmed to Meet Type 3 RRS
	PB1B-FL01-2'	16-Nov-06	15.97	13	ND	<1.1	Confirmed to Meet Type 3 RRS
	PB1B-FL02-2'	17-Nov-06	19.83	6.1	ND	<1.0	Confirmed to Meet Type 3 RRS
	PB1B-FL03-2'	17-Nov-06	156.94	220	ND	12	Confirmed to Meet Type 3 RRS
	PB1B-FL04-2'	17-Nov-06	ND	6.1	ND	<1.0	Confirmed to Meet Type 3 RRS
=	PB1B-FL05-2'	17-Nov-06	16.9	5	ND	<1.1	Confirmed to Meet Type 3 RRS
rea	PB1B-FL06-2'	17-Nov-06	36.2	37	ND	3.9	Confirmed to Meet Type 3 RRS
Lead Area 1B	PB1B-N01-1'	17-Nov-06	28.25	17	ND	1.5	Confirmed to Meet Type 3 RRS
Les	PB1B-N02-1'	17-Nov-06	14.58	29	ND	4	Confirmed to Meet Type 3 RRS
	PB1B-N03-1'	17-Nov-06	15.42	7.9	ND	<1.1	Confirmed to Meet Type 3 RRS
	PB1B-S01-1'	16-Nov-06	23.79	21	ND	<1.1	Confirmed to Meet Type 3 RRS
	PB1B-S02-1'	17-Nov-06	ND	5.9	ND	<0.95	Confirmed to Meet Type 3 RRS
	PB1B-S03-1'	17-Nov-06	109.75	190	ND	<0.95	Confirmed to Meet Type 3 RRS
	PB1B-W01-1	16-Nov-06	7.69	4.5	ND	<1.0	Confirmed to Meet Type 3 RRS
	PB1B-W02-1'	17-Nov-06	9.25	3.8	ND	<0.89	Confirmed to Meet Type 3 RRS

Table 8 - XRF and Laboratory Results Generated During Metal-Impacted Soil Excavation Program

Area	Sample ID	Sample Date	Lead (XRF)	Lead (6010B) Type 3 RRS= 400 mg/kg	Arsenic (XRF)	Arsenic (6010B) Type 3 RRS= 38 mg/kg	Comment
	PB2A-E01-1'	16-Nov-06	18.61	32	ND	<0.91	Confirmed to Meet Type 3 RRS
	PB2A-E02-1'	16-Nov-06	42.98	44	ND	<1.0	Confirmed to Meet Type 3 RRS
Lead Area 2A	PB2A-FL01-2'	16-Nov-06	15.47	32	ND	<0.99	Confirmed to Meet Type 3 RRS
rea	PB2A-FL02-2'	16-Nov-06	15.13	13	ND	<1.0	Confirmed to Meet Type 3 RRS
d A	PB2A-N01-1'	16-Nov-06	70.78	99	ND	4.2	Confirmed to Meet Type 3 RRS
-ea	PB2A-S01-1'	16-Nov-06	17.75	4	ND	1.2	Confirmed to Meet Type 3 RRS
_	PB2A-W01-1'	16-Nov-06	45.12	110	ND	3.2	Confirmed to Meet Type 3 RRS
	PB2A-W02-1'	16-Nov-06	31.42	24	ND	<1.1	Confirmed to Meet Type 3 RRS
В	PB2B-E01-1'	16-Nov-06	26.37	25	ND	NA	Confirmed to Meet Type 3 RRS
ia 2	PB2B-FL01-2'	16-Nov-06	26.92	61	ND	NA	Confirmed to Meet Type 3 RRS
Are	PB2B-N01-1'	16-Nov-06	13.55	25	ND	NA	Confirmed to Meet Type 3 RRS
Lead Area 2B	PB2B-S01-1'	16-Nov-06	69.06	60	ND	NA	Confirmed to Meet Type 3 RRS
Le	PB2B-W01-1'	16-Nov-06	87.55	110	ND	NA	Confirmed to Meet Type 3 RRS
Ö	PB2C-E01-1'	16-Nov-06	27.02	7.9	ND	NA	Confirmed to Meet Type 3 RRS
a 2	PB2C-FL01-2'	16-Nov-06	76.15	63	ND	NA	Confirmed to Meet Type 3 RRS
Lead Area 2C	PB2C-W01-1'	16-Nov-06	65.89	41	ND	NA	Confirmed to Meet Type 3 RRS
ad	PB2C-N01-1'	16-Nov-06	191.97	190	ND	NA	Confirmed to Meet Type 3 RRS
Le	PB2C-S01-1'	16-Nov-06	161.9	250	ND	NA	Confirmed to Meet Type 3 RRS
	PB3A-E01-6"	17-Nov-06	232.4	220	ND	NA	Confirmed to Meet Type 3 RRS
	PB3A-FL01-1'	17-Nov-06	223.38	98	ND	NA	Confirmed to Meet Type 3 RRS
3A	PB3A-N01-6"	17-Nov-06	546.11	NA	ND	NA	Excavated
rea	PB3A-N02-6"	20-Nov-06	57.27	120	ND	NA	Confirmed to Meet Type 3 RRS
Lead Area 3A	PB3A-S01-6"	17-Nov-06	208.18	270	ND	NA	Confirmed to Meet Type 3 RRS
-ea	PB3A-W01-6"	17-Nov-06	1030.91	NA	ND	NA	Excavated
	PB3A-W02-6"	20-Nov-06	799.78	NA	ND	NA	Excavated
	PB3A-W03-6"	20-Nov-06	10.3	8.6	ND	<.97	Confirmed to Meet Type 3 RRS

Table 8 - XRF and Laboratory Results Generated During Metal-Impacted Soil Excavation Program

Area	Sample ID	Sample Date	Lead (XRF)	Lead (6010B) Type 3 RRS= 400 mg/kg	Arsenic (XRF)	Arsenic (6010B) Type 3 RRS= 38 mg/kg	Comment
	PB3B-E01-6"	20-Nov-06	173.05	380	ND	4	Confirmed to Meet Type 3 RRS
	PB3&-E02-6"	20-Nov-06	181.38	350	ND	1.5	Confirmed to Meet Type 3 RRS
	PB3B-FL01-1'	20-Nov-06	2714.07	NA	81.47	NA	Excavated
	PB3B-FL02-1'	20-Nov-06	33.92	130	ND	<0.98	Confirmed to Meet Type 3 RRS
	PB3B-FL03-1'	20-Nov-06	257.85	NA	ND	NA	Excavated
	PB3B-FL04-1'	20-Nov-06	84.64	440	ND	NA	Excavated
	PB3B-FL05-1'	20-Nov-06	202.01	240	ND	2.3	Confirmed to Meet Type 3 RRS
	PB3B-FL-06-1'	20-Nov-06	28.7	6.4	ND	<1	Confirmed to Meet Type 3 RRS
	PB3B-FL07-2'	28-Nov-06	8.22	4.9	ND	<1.3	Confirmed to Meet Type 3 RRS
	PB3B-FL08-2'	28-Nov-06	ND	1.2	ND	<1.1	Confirmed to Meet Type 3 RRS
	PB3B-FL09-2'	28-Nov-06	7.36	2.3	ND	<1.2	Confirmed to Meet Type 3 RRS
Lead Area 3B	PB3B-N01-6"	20-Nov-06	414.1	NA	ND	NA	Excavated
rea	PB3B-N02-6"	20-Nov-06	868.5	NA	ND	NA	Excavated
Αρ	PB3B-N03-3"	20-Nov-06	321.16	NA	ND	NA	Excavated
ea -ea	PB3B-N04-1'	28-Nov-06	226.07	300	ND	7.4	Confirmed to Meet Type 3 RRS
_	PB3B-N05-1'	28-Nov-06	309.4	NA	19.57	NA	Excavated
	PB3B-N06-1'	28-Nov-06	8.78	7.7	ND	2.1	Confirmed to Meet Type 3 RRS
	PB3B-N07-1'	28-Nov-06	18.56	18	ND	<0.94	Confirmed to Meet Type 3 RRS
	PB3B-S01-6"	20-Nov-06	1347.13	NA	44.13	NA	Excavated
	PB3B-S02-6"	20-Nov-06	528.24	NA	ND	NA	Excavated
	PB@B-S03-6"	20-Nov-06	191.99	270	ND	1.3	Confirmed to Meet Type 3 RRS
	PB3B-S04-1'	28-Nov-06	ND	9.3	ND	<0.99	Confirmed to Meet Type 3 RRS
	PB3B-S05-1'	28-Nov-06	9.64	19	ND	<1.0	Confirmed to Meet Type 3 RRS
	PB3B-W01-6"	20-Nov-06	18.55	5.6	ND	<0.97	Confirmed to Meet Type 3 RRS
	PB3B-W02-6"	20-Nov-06	523.44	NA	28.9	NA	Excavated
	PB3B-W03-1'	28-Nov-06	16.02	22	ND	<1.1	Confirmed to Meet Type 3 RRS
	PB4A-E01-6"	16-Nov-06	341.91	NA	20.61	NA	Excavated
	PB4A-E02-6"	16-Nov-06	202.99	280	ND	9.5	Confirmed to Meet Type 3 RRS
	PB4A-E03-6"	28-Nov-06	149.31	200	ND	7.3	Confirmed to Meet Type 3 RRS
	PB4A-FL01-1'	16-Nov-06	66.6	220	ND	7.1	Confirmed to Meet Type 3 RRS
∢	PB4A-N01-6"	16-Nov-06	130.76	390	ND	14	Confirmed to Meet Type 3 RRS
Lead Area 4A	PB4A-S01-6"	16-Nov-06	288.71	NA	ND	NA	Excavated
Are	PB4A-S02-6"	16-Nov-06	383.85	NA	46.34	NA	Excavated
ad	PB4A-S03-6"	16-Nov-06	199.09	580	ND	NA	Excavated
Le	PB4A-S04-6"	27-Nov-06	486.83	NA	29.38	NA	Excavated
	PB4A-S05-6"	27-Nov-06	828.18	NA	35.9	NA	Excavated
	PB4A-S06-6"	27-Nov-06	252.27	270	ND	6.5	Confirmed to Meet Type 3 RRS
	PB4A-W01-6"	16-Nov-06	207.49	330	ND	5.3	Confirmed to Meet Type 3 RRS
	PB4A-W02-6"	28-Nov-06	236.89	320	35.64	22	Confirmed to Meet Type 3 RRS

Table 8 - XRF and Laboratory Results Generated During Metal-Impacted Soil Excavation Program

Area	Sample ID	Sample Date	Lead (XRF)	Lead (6010B) Type 3 RRS= 400 mg/kg	Arsenic (XRF)	Arsenic (6010B) Type 3 RRS= 38 mg/kg	Comment
_	PB5A-E01-6"	14-Nov-06	54.7	49	ND	NA	Confirmed to Meet Type 3 RRS
5A	PB5A-FL01-1'	14-Nov-06	59.82	70	ND	NA	Excavated
rea	PD3A-FLUZ-(10-	5-Feb-08	NA	74	NA	NA	Confirmed to Meet Type 3 RRS
Lead Area 5A	PB5A-N01-6"	14-Nov-06	22.68	28	ND	NA	Confirmed to Meet Type 3 RRS
Lea	PB5A-S01-6"	14-Nov-06	85.21	62	ND	NA	Confirmed to Meet Type 3 RRS
_	PB5A-W01-6"	14-Nov-06	50.37	37	ND	NA	Confirmed to Meet Type 3 RRS
	PB5B-E01-6"	15-Nov-06	61.68	85	ND	NA	Confirmed to Meet Type 3 RRS
œ	PB5B-FL01-1'	15-Nov-06	299.72	NA	ND	NA	Excavated
a 5	PB5B-FL02-2'	15-Nov-06	14.51	26	ND	NA	Confirmed to Meet Type 3 RRS
Are	PB5B-N01-6"	15-Nov-06	13.56	10	ND	NA	Confirmed to Meet Type 3 RRS
Lead Area 5B	PB5B-S01-6"	15-Nov-06	28.59	120	ND	NA	Confirmed to Meet Type 3 RRS
۳	PB5B-W01-6"	15-Nov-06	464.96	NA	ND	NA	Excavated
	PB5B-W02-1'	15-Nov-06	262.01	240	19.03	NA	Confirmed to Meet Type 3 RRS
	PB5C-E01-6"	15-Nov-06	311.63	NA	ND	NA	Excavated
	PB5C-E02-1'	15-Nov-06	87.73	100	ND	4.5	Confirmed to Meet Type 3 RRS
ပ	PB5C-FL01-1'	15-Nov-06	300.21	NA	ND	NA	Excavated
a 5	PB5C-FL02-2'	15-Nov-06	ND	13	ND	1.2	Confirmed to Meet Type 3 RRS
Are	PB5C-N01-6"	15-Nov-06	438.93	NA	28.94	NA	Excavated
ead Area 5C	PB5C-N02-1'	15-Nov-06	130.1	300	ND	11	Confirmed to Meet Type 3 RRS
Le Le	PB5C-S01-6"	15-Nov-06	218.38	210	ND	4.9	Confirmed to Meet Type 3 RRS
	PB5C-W01-6"	15-Nov-06	255.68	1400	23.6	NA	Excavated
	PB5C-W02-1'	27-Nov-06	18.29	14	ND	<0.96	Confirmed to Meet Type 3 RRS

Notes: ND = less than detection limit of XRF device

NA = Not Analyzed

XRF = x-ray fluorescence mg/kg = milligram/kilogram

RRS = Risk Reduction Standard

All units are in mg/Kg

Table 9 - Metals-Impacted Soil Excavation Confirmation Analytical Results

			Arsenic	Lead
Area	Sample ID	Date	(6010B)	(6010B)
			Type 3 RRS=38 mg/kg	Type 3 RRS=400 mg/kg
	AS1A-E02-3"	20-Nov-06	25	91
	AS1A-E03-6"	29-Nov-06	20	110
	AS1A-E04-3"	7-Dec-06	18	71
-	AS1A-N01-3"	15-Nov-06	11	36
rea	AS1A-N07A-3"	13-Dec-08	33	190
Arsenic Area 1	AS1A-S01-3"	15-Nov-06	23	190
ser	AS1A-S02-1'	29-Nov-06	5.1	49
₹	AS1A-W01-3"	15-Nov-06	5.3	25
	AS1A-W02-6"	29-Nov-06	10	21
	AS1A-W04-3"	7-Dec-06	6	31
	AS1A-W06-3"	7-Dec-06	32	73
∢	PB1A-E01-1'	16-Nov-06	NA	24
Lead Area 1A	PB1A-FL01-2'	16-Nov-06	NA	4.6
Are	PB1A-N01-1'	16-Nov-06	NA	8.8
ead	PB1A-S01-1'	16-Nov-06	NA	21
٦	PB1A-W01-1'	16-Nov-06	NA	17
	PB1B-E01-1'	17-Nov-06	<1.0	20
	PB1B-E02-1'	17-Nov-06	2.6	110
	PB1B-FL01-1'	16-Nov-06	<1.1	13
	PB1B-FL02-2'	17-Nov-06	<1.0	6.1
	PB1B-FL03-2'	17-Nov-06	12	220
	PB1B-FL04-2'	17-Nov-06	<1.0	6.1
Lead Area 1B	PB1B-FL05-2'	17-Nov-06	<1.1	5
vrea	PB1B-FL06-2'	17-Nov-06	3.9	37
ad A	PB1B-N01-1'	17-Nov-06	1.5	17
Γĕ	PB1B-N02-1'	17-Nov-06	4	29
	PB1B-N03-1'	17-Nov-06	<1.1	7.9
	PB1B-S01-1'	16-Nov-06	<1.1	21
	PB1B-S02-1'	17-Nov-06	<0.95	5.9
	PB1B-S03-1'	17-Nov-06	<0.95	190
	PB1B-W01-1	16-Nov-06	<1.0	4.5
	PB1B-W02-1'	17-Nov-06	<0.89	3.8
	PB2A-E01-1'	16-Nov-06	<0.91	32
_	PB2A-E02-1'	16-Nov-06	<1.0	44
1 2A	PB2A-FL01-2'	16-Nov-06	<0.99	32
Lead Area 2A	PB2A-FL02-2'	16-Nov-06	<1.0	13
ad ∤	PB2A-N01-1'	16-Nov-06	4.2	99
Le.	PB2A-S01-1'	16-Nov-06	1.2	4
	PB2A-W01-1'	16-Nov-06	3.2	110
	PB2A-W02-1'	16-Nov-06	<1.1	24

Table 9 - Metals-Impacted Soil Excavation Confirmation Analytical Results

			Arsenic	Lead
Area	Sample ID	Date	(6010B)	(6010B)
			Type 3 RRS=38 mg/kg	Type 3 RRS=400 mg/kg
В	PB2B-E01-1'	16-Nov-06	NA	25
Lead Area 2B	PB2B-FL01-2'	16-Nov-06	NA	61
Are	PB2B-N01-1'	16-Nov-06	NA	25
ead	PB2B-S01-1'	16-Nov-06	NA	60
	PB2B-W01-1'	16-Nov-06	NA	110
O	PB2C-E01-1'	16-Nov-06	NA	7.9
Lead Area 2C	PB2C-FL01-2'	16-Nov-06	NA	63
Are	PB2C-W01-1'	16-Nov-06	NA	41
ead	PB2C-N01-1'	16-Nov-06	NA	190
٦	PB2C-S01-1'	16-Nov-06	NA	250
⋖	PB3A-E01-6"	17-Nov-06	NA	220
Lead Area 3A	PB3A-FL01-1'	17-Nov-06	NA	98
Are	PB3A-N02-6"	20-Nov-06	NA	120
ead	PB3A-S01-6"	17-Nov-06	NA	270
٦	PB3A-W03-6"	20-Nov-06	<.97	8.6
	PB3B-E01-6"	20-Nov-06	4	380
	PB3B-E02-6"	20-Nov-06	1.5	350
	PB3B-FL02-1'	20-Nov-06	<0.98	130
	PB3B-FL05-1'	20-Nov-06	2.3	240
	PB3B-FL-06-1'	20-Nov-06	<1	6.4
	PB3B-FL07-2'	28-Nov-06	<1.3	4.9
Lead Area 3B	PB3B-FL08-2'	28-Nov-06	<1.1	1.2
rea	PB3B-FL09-2'	28-Nov-06	<1.2	2.3
ad A	PB3B-N04-1'	28-Nov-06	7.4	300
Le	PB3B-N06-1'	28-Nov-06	2.1	7.7
	PB3B-N07-1'	28-Nov-06	<0.94	18
	PB3B-S03-6"	20-Nov-06	1.3	270
	PB3B-S04-1'	28-Nov-06	<0.99	9.3
	PB3B-S05-1'	28-Nov-06	<1.0	19
	PB3B-W01-6"	20-Nov-06	<0.97	5.6
	PB3B-W03-1'	28-Nov-06	<1.1	22
	PB4A-E02-6"	16-Nov-06	9.5	280
4 4	PB4A-E03-6"	28-Nov-06	7.3	200
Lead Area 4A	PB4A-FL01-1'	16-Nov-06	7.1	220
d Ar	PB4A-N01-6"	16-Nov-06	14	390
-eac	PB4A-S06-6"	27-Nov-06	6.5	270
	PB4A-W01-6"	16-Nov-06	5.3	330
	PB4A-W02-6"	28-Nov-06	22	320

Table 9 - Metals-Impacted Soil Excavation Confirmation Analytical Results

			Arsenic	Lead		
Area	Sample ID	Date	(6010B)	(6010B)		
			Type 3 RRS=38 mg/kg	Type 3 RRS=400 mg/kg		
5A	PB5A-E01-6"	14-Nov-06	NA	49		
3a 5	PB5A-FL02-(18-24")	5-Feb-08	NA	74		
Lead Area	PB5A-N01-6"	14-Nov-06	NA	28		
ead	PB5A-S01-6"	14-Nov-06	NA	62		
	PB5A-W01-6"	14-Nov-06	NA	37		
5B	PB5B-E01-6"	15-Nov-06	NA	85		
	PB5B-FL02-2'	15-Nov-06	NA	26		
Lead Area	PB5B-N01-6"	15-Nov-06	NA	10		
ead	PB5B-S01-6"	15-Nov-06	NA	120		
_	PB5B-W02-1'	15-Nov-06	NA	240		
O	PB5C-E02-1'	15-Nov-06	4.5	100		
3a 5	PB5C-FL02-2'	15-Nov-06	1.2	13		
Lead Area 5C	PB5C-N02-1'	15-Nov-06	11	300		
ead	PB5C-S01-6"	15-Nov-06	4.9	210		
	PB5C-W92-1'	27-Nov-06	<0.96	14		

Notes: ND = less than detection limit of XRF device

NA = Not Analyzed
All units are in mg/Kg

Table 10 - Summary of PAH Soil Confirmation Testing Results

Compound	Type 1/3 RRS	PDMW-14T North Wall A-1 (1 FT BGS)	PDMW-14T North Wall B-1 (1 FT BGS)	PDMW-14T East Wall A-1 (1 Ft BGS)	PDMW-14T East Wall B-1 (1 FT BGS)	PDMW-14T South Wall A-1 (1 FT BGS)	PDMW-14T South Wall B-1 (1 FT BGS)	PDMW-14T West Wall A-1 (1 FT BGS)	PDMW-14T West Wall B-1 (1 FT BGS)
Date		3/5/2007	3/5/2007	3/5/2007	3/5/2007	3/5/2007	3/5/2007	2/21/2007	2/22/2007
Acenaphthene	300	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Acenaphthylene	130	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Anthracene	500	4.3	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.67	0.074 U
Benzo[a]anthracene	5	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Benzo[a]pyrene	1.6	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Benzo[b]fluoranthene	5	0.075 U	0.085 U	0.0076 U	0.830 UM	1.100 U	0.850 U	0.0078 U	0.074 U
Benzo[g,h,i]perylene	500	0.083	0.1	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Benzo[k]fluoranthene	5	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Chrysene	5	0.11	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.023	0.074 U
Dibenz(a,h)anthracene	5	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
Fluoranthene	500	0.15	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.026	0.074 U
Fluorene	360	0.23	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.057	0.074 U
Indeno[1,2,3-cd]pyrene	5	0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
2-Methylnaphthalene		0.087	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.0078 U	0.074 U
1-Methylnaphthalene		0.075 U	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.016	0.074 U
Naphthalene	100	0.11	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.018	0.074 U
Phenanthrene	110	0.38	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.075	0.074 U
Pyrene	500	0.15	0.085 U	0.0076 U	0.830 U	1.100 U	0.850 U	0.037	0.074 U

Notes:

All values in mg/Kg

U = Indicates the analyte was analyzed for but not detected. M = Manual integrated compound.

Table 11 - Excavation Area Summary

Excavation Area Name	Excavation Depth Range (feet bgs)	Area (Ft ²)					
Petro	oleum Source Material A	reas					
PSM Area 2	2-4	123,750					
PSM Area 3	2-4	52,708					
PSM Area 4	3-5	33,342					
PSM Area 5	2-4	5,625					
PSM Area 6	0-4	62,383					
PSM Area 7	4-6	2,178					
PSM Area 8	2-3	460					
PSM Area 9	2-3	1,350					
PSM Area 10	1-4	21,276					
PSM Area 11	2-5	7,740					
PSM Area 12	2-8	10,339					
PSM Area 13	2-5	7,913					
	Metals Impacted Areas						
Arsenic Area 1A	0-4	2,750					
Lead Area 1A-B	0-3	2,394					
Lead Area 2A-C	0-2	969					
Lead Area 3A-B	0-1.5	2,372					
Lead Area 4A	0-1	750					
Lead Area 5A-C	0-1	1,257					

										Sa	mples Collect	ed from Locat	ion Upstream	SW							
Sample ID:	-	Canal - Up	SW1 Up	SW1 Up-High	SW1-High	SW1-Low	SW1-HIGH	SW1-LOW	SW1-HIGH	SW1-LOW	SW1-HIGH	SW1-LOW	SW1-HIGH	SW1-Low	SW1-High	SW1-Low	SW UPSTREA	M SW-UPSTREAM	SW-UPSTREA	M SW Upstream	SW-UPSTREAM
Date Collected:		11/07/97	11/17/99	11/17/99	02/25/00	02/25/00	05/16/00	05/16/00	08/22/00	08/22/00	01/09/01	01/09/01	07/16/01	07/16/01	02/04/02	02/05/02	09/12/02	02/07/03	06/26/03	01/27/04	07/23/04
Tide Stage:	Units	Low	Low	High	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	Low	High	High
PAHs																					
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Acenaphthene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Acenaphthylene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Anthracene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Benzo(a)anthracene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Benzo(a)pyrene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Benzo(b)fluoranthene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Benzo(g,h,i)perylene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Benzo(k)fluoranthene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Chrysene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Dibenz(a,h)anthracene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Fluoranthene	ug/L	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2
Fluorene	ug/L	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Indeno(1,2,3-cd)pyrene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Naphthalene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.2 U
Phenanthrene	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.63
Pyrene	ug/L	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U [0.2 U]	0.21
Total PAHs	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA	ND	ND [ND]	ND	ND [ND]	1.04
Volatile Organic Compoun	ds																				
Benzene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Ethylbenzene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
m&p-Xylene	ug/L	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Xylenes (total)	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	2 U
Total BTEX	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA	ND	ND [ND]	ND	ND [ND]	ND
Metals																1					
Arsenic	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U [0.01 U]	0.01 U
Beryllium	mg/L	0.005 U	NA NA	NA	NA NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA NA	NA NA	NA NA
Cadmium	mg/L	0.005 U	NA 0.04 II	NA 0.04 H	NA 0.04.11	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA 0.04 III	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA	NA	NA	NA 0.04.11	NA NA	NA 0.04.11	NA 0.00 [0.04 LI]	NA O O O O O O O O O O O O O O O O O O O
Chromium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.02 [0.01 U]	0.01 U
Lead	mg/L	0.005 U	0.005 U	0.005 U	0.0073 U	0.005 U	0.005 U	0.01	0.015 U	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.023	0.005 U	0.005 U	0.005 U [0.0057]	0.0064	0.02 [0.005 U]	0.005 U
Mercury	mg/L	0.0002 U	NA O O A I I	NA 0.04 H	NA 0.04 H	NA 0.0411	NA 0.04 LL	NA 0.0411	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA 0.04 H	NA 0.0411	NA 0.04 H	NA 0.0411	NA 0.04 H	NA O O A LLIO O A LII	NA 0.04 H	NA 0.04 LUIO 04 LUI	NA 0.04 H
Nickel	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U [0.04 U]	0.04 U	0.04 U [0.04 U]	0.04 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.11	0.093	0.02 U	0.081	0.072	0.14	0.07	0.02 U	0.11	0.05	0.12	0.06	0.026	0.044 [0.043]	0.044	0.15 [0.082]	0.02 U
Metals-Filtered		NIA T	0.04.11	0.04.11	0.04.11	0.04.11	l NIA	NIA.	l NIA	I NIA	I NIA	l NIA	l NIA	l NA	T NIA	T NIA	T NA	T NA T	NIA	T NA T	NIA
Arsenic	mg/L	NA NA	0.01 U	0.01 U	0.01 U	0.01 U	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA
Chromium	mg/L	NA NA	0.01 U	0.01 U	0.01 U	0.01 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.005 H	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Lead	mg/L	NA NA	0.005 U	0.005 U	0.005 U	0.005 U	NA NA	NA NA	NA	NA	NA NA	NA NA	NA NA	NA NA	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Nickel	mg/L	NA NA	0.04 U	0.04 U	0.04 U	0.04 U	NA NA	NA 0.047	NA NA	NA 0.02	NA 0.030	NA NA	NA 0.000	NA 0.024	NA 0.000	NA 0.02.11	NA	NA NA	NA NA	NA NA	NA NA
Zinc	mg/L	NA	0.02 U	0.02 U	0.049	0.071	NA	0.047	NA	0.03	0.039	NA	0.028	0.024	0.028	0.02 U	NA	NA	NA	NA	NA
Miscellaneous	, ,	0.00	2.24	0.40		0.0	0.00	4.0	0.00		1.0	0.70	0.04	1.0	0.04	1 110		0.010.71	0.00	0.5.00.03	2.00
Ammonia-N	mg/L	0.36	0.84	0.42	4.1	2.6	0.36	1.3	0.26	1.4	1.8	0.76	0.21	1.8	0.94	NA	0.14	2.6 [2.7]	0.92	3.5 [3.9]	0.33

Notes:

- 1) NA = Analyte was not analyzed.
- 2) ND = Not Detected
- 3) U = Indicates result value is below the laboratory quantitaton limit.
- 4) Total BTEX and Total PAHs were calculated as the sum of detected results where at least one of the analytes was detected, and reported as Not Detected (ND) in cases where all analytes were below their respective laboratory quantitation limits.
- 5) [value] indicates results of field duplicate sample

		Samples Collected from Location Downstream SW													
Sample ID:		Canal - Down	SW1 Down	SW1 Down-High	SW2-High	SW2-Low	SW2-HIGH	SW2-LOW	SW2-HIGH	SW2-LOW	SW2-HIGH	SW2-LOW	SW2-HIGH	SW2-Low	SW2-High
Date Collected:		11/08/97	11/17/99	11/17/99	02/25/00	02/25/00	05/16/00	05/16/00	08/22/00	08/22/00	01/09/01	01/09/01	07/16/01	07/16/01	02/04/02
Tide Stage:	Units	Low	Low	High	High	Low	High	Low	High	Low	High	Low	High	Low	High
PAHs															
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	1 U	1 U	1 U	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U
Acenaphthylene	ug/L	1 U	1 U	1 U	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U
Anthracene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)anthracene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(b)fluoranthene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)anthracene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Fluorene	ug/L	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Indeno(1,2,3-cd)pyrene	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	1 U	1 U	1 U	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U
Phenanthrene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Pyrene	ug/L	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PAHs	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Volatile Organic Compoun		4.11	4.11	1 411	NIA	4.11	NIA	N14	N10	N10	411	4.11	4.11	411	4.11
Benzene	ug/L	1 U	1 U	1 U	NA	1 U	NA NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	1 U NA	1 U	1 U 1 U	NA	1 U		NA	NA NA	NA		1 U	1 U	1 U	1 U NA
m&p-Xylene	ug/L	NA NA	1 U 1 U	1 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	1 U 1 U	1 U	1 U	1 U	NA NA
o-Xylene	ug/L	1 U	1 U	1 U	NA NA	1 U	NA NA	NA NA	NA NA	NA NA	1 U	1 U	1 U	1 U	1 U
Toluene Xylenes (total)	ug/L ug/L	2 U	NA	NA	NA NA	2 U	NA NA	NA NA	NA NA	NA NA	NA	NA	NA	NA	2 U
Total BTEX	ug/L ug/L	ND	ND ND	ND ND	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA ND	ND ND	ND ND	ND ND	ND ND
Metals	ug/L	ND	ND	ND	IVA	IVA	INA	IVA	IVA	IVA	ND	ND	ND	ND	ND
Arsenic	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Beryllium	mg/L	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/L	0.005 U	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Chromium	mg/L	0.003 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Lead	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.015 U	0.0087	0.005 U	0.005 U	0.005 U	0.0069	0.005 U
Mercury	mg/L	0.0002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Zinc	mg/L	0.052	0.02 U	0.02 U	0.022	0.02 U	0.02 U	0.025	0.072	0.025	0.024	0.02 U	0.027	0.038	0.02 U
Metals-Filtered	<i>J</i>	-	-	-		_	_								_
Arsenic	mg/L	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/L	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/L	NA	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA	0.005 U	NA	NA	NA	0.005 U	NA
Nickel	mg/L	NA	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/L	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA	0.02 U	0.032	NA	0.053	0.02	NA
Miscellaneous				•					•		•	•	•	-	<u> </u>
Ammonia-N	mg/L	0.93	6.2	0.48	0.64	5.2	0.64	1.8	0.18	2.2	0.17	2.8	0.82	4.3	0.12

Table 12

Notes:

- 1) NA = Analyte was not analyzed.
- 2) ND = Not Detected
- 3) U = Indicates result value is below
- 4) Total BTEX and Total PAHs were where at least one of the analytes (ND) in cases where all analytes we quantitation limits.
- 5) [value] indicates results of field dup

			Samples Collected	d from Location Downs	tream SW	
Sample ID: Date Collected: Tide Stage:	Units	SW DOWNSTREAM 09/12/02 High	SW-DOWNSTREAM 02/07/03 Low	SW DOWNSTREAM 06/25/03 Low	SW Downstream 01/27/04 High	SW-Downstream 07/22/04 High
PAHs						
1-Methylnaphthalene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
2-Methylnaphthalene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Acenaphthene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Acenaphthylene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Anthracene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Benzo(a)anthracene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Benzo(a)pyrene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Benzo(b)fluoranthene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Benzo(g,h,i)perylene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Benzo(k)fluoranthene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Chrysene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Dibenz(a,h)anthracene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Fluoranthene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Fluorene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Indeno(1,2,3-cd)pyrene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Naphthalene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Phenanthrene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Pyrene	ug/L	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U
Total PAHs	ug/L	ND	ND	ND [ND]	ND	ND
Volatile Organic Compoun	ds				•	
Benzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U
Ethylbenzene	ug/L	1.3	1 U	1 U [1 U]	1 U	1 U
m&p-Xylene	ug/L	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	NA	NA
Toluene	ug/L	2	1 U	1 U [1 U]	1 U	1 U
Xylenes (total)	ug/L	7.2	2 U	2 U [2 U]	2 U	2 U
Total BTEX	ug/L	10.5	ND	ND [ND]	ND	ND
Metals						
Arsenic	mg/L	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U
Beryllium	mg/L	NA	NA	NA	NA	NA
Cadmium	mg/L	NA	NA	NA	NA	NA
Chromium	mg/L	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U
Lead	mg/L	0.005 U	0.005 U	0.0075 [0.0083]	0.005 U	0.005 U
Mercury	mg/L	NA	NA	NA	NA	NA
Nickel	mg/L	0.04 U	0.04 U	0.04 U [0.04 U]	0.04 U	0.04 U
Zinc	mg/L	0.02 U	0.02 U	0.032 [0.027]	0.13	0.02 U
Metals-Filtered						
Arsenic	mg/L	NA	NA	NA	NA	NA
Chromium	mg/L	NA	NA	NA	NA	NA
Lead	mg/L	NA	NA	NA	NA	NA
Nickel	mg/L	NA	NA	NA	NA	NA
Zinc	mg/L	NA	NA	NA	NA	NA
Miscellaneous	-					
Ammonia-N	mg/L	0.57	5.6	3 [3]	1.1	0.32

Notes:

- 1) NA = Analyte was not analyzed.
- 2) ND = Not Detected
- 3) U = Indicates result value is below
 4) Total BTEX and Total PAHs were where at least one of the analytes (ND) in cases where all analytes we quantitation limits.
- 5) [value] indicates results of field dup

Table 13 - Summary of 2013-2015 Surface Water Analytical Results

Sample ID:					SV	V-1							SV	V-2			
Date Collected:		12/1	13/13	06/0	5/14	11/0	06/14	05/2	21/15	12/1	3/13	06/0	5/14	11/0	06/14	05/2	21/15
Tide Stage:	Units	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
Polycyclic Aromatic Hydroca	rbons																
1-Methylnaphthalene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Acenaphthene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Acenaphthylene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Anthracene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Chrysene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Fluoranthene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Fluorene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Naphthalene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Phenanthrene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Pyrene	ug/L	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA	9.5 U	NA	9.7 U	9.5 U	NA	NA	NA	NA
Total PAHs	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Volatile Organic Compounds																	
Benzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	NA	1 U	1 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	NA	1 U	1 U	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	NA	1 U	1 U	NA	NA	NA	NA
Xylenes (total)	ug/L	2 U	2 U	2 U	2 U	NA	NA	NA	NA	2 U	NA	2 U	2 U	NA	NA	NA	NA
Total BTEX	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Dissolved Metals																	
Arsenic	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA
Chromium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA
Lead	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA
Nickel	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	mg/L	NA	NA	NA	NA	88	62	77	39	NA	NA	NA	NA	87	62	130	39
Ammonia-N	mg/L	0.30	0.25	1.4	0.44	0.29	0.16	0.62	0.41	0.29	0.053	1.6	0.12	0.40	0.20	1.5	0.52
Nitrite	mg/L	NA	NA	NA	NA	NA	NA	0.050 U	0.050 U	NA	NA	NA	NA	NA	NA	0.085	0.050 U
Nitrate	mg/L	0.21	0.4	0.32	0.34	0.12	0.25	0.27	0.28	0.18	NA	0.22	0.37	0.085	0.24	0.28	0.29

Notos:

U = Indicates the analyte was not detected above the minimum laboratory reporting limit

NA = Analyte was not analyzed.

ND = None of the constituents were detected above the minimum laboratory reporting limit

mg/L = milligrams per liter

ug/L = micrograms per liter

Table 13 - Summary of 2013-2015 Surface Water Analytical Results

Sample ID:					SV	V-3							SV	V-4			
Date Collected:		12/1	3/13	06/0	5/14	11/0	6/14	05/2	21/15	12/1	3/13	06/0	5/14	11/0	6/14	05/2	21/15
Tide Stage:	Units	LOW	HIGH	LOW	HGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
Polycyclic Aromatic Hydroca	rbons																
1-Methylnaphthalene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Acenaphthene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Acenaphthylene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Anthracene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Chrysene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Fluoranthene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Fluorene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Naphthalene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Phenanthrene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Pyrene	ug/L	9.5 U	9.5 U	9.6 U	9.7 U	NA	NA	NA	NA	9.5 U	9.5 U	10 U	10 U	NA	NA	NA	NA
Total PAHs	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	10 U	ND	NA	NA	NA	NA
Volatile Organic Compounds																	
Benzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA
Xylenes (total)	ug/L	2 U	2 U	2 U	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	NA	NA	NA	NA
Total BTEX	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
Dissolved Metals																	
Arsenic	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA
Chromium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA
Lead	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA	0.01 U	0.01 U	0.01 U	0.01 U	NA	NA	NA	NA
Nickel	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA	0.04 U	0.04 U	0.04 U	0.04 U	NA	NA	NA	NA
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	mg/L	NA	NA	NA	NA	100	60	120	71	NA	NA	NA	NA	84	58	120	100
Ammonia-N	mg/L	0.27	0.092	1.7	0.31	0.19	0.22	0.80	0.91	0.17	0.33	1.9	0.39	0.13	0.16	1.5	0.83
Nitrite	mg/L	NA	NA	NA	NA	NA	NA	0.050 U	0.050 U	NA	NA	NA	NA	NA	NA	0.094	0.060
Nitrate	mg/L	0.18	0.42	0.26	0.36	0.083	0.25	0.21	0.27	0.41	0.24	0.28	0.39	0.078	0.24	0.17	0.25

Notes:

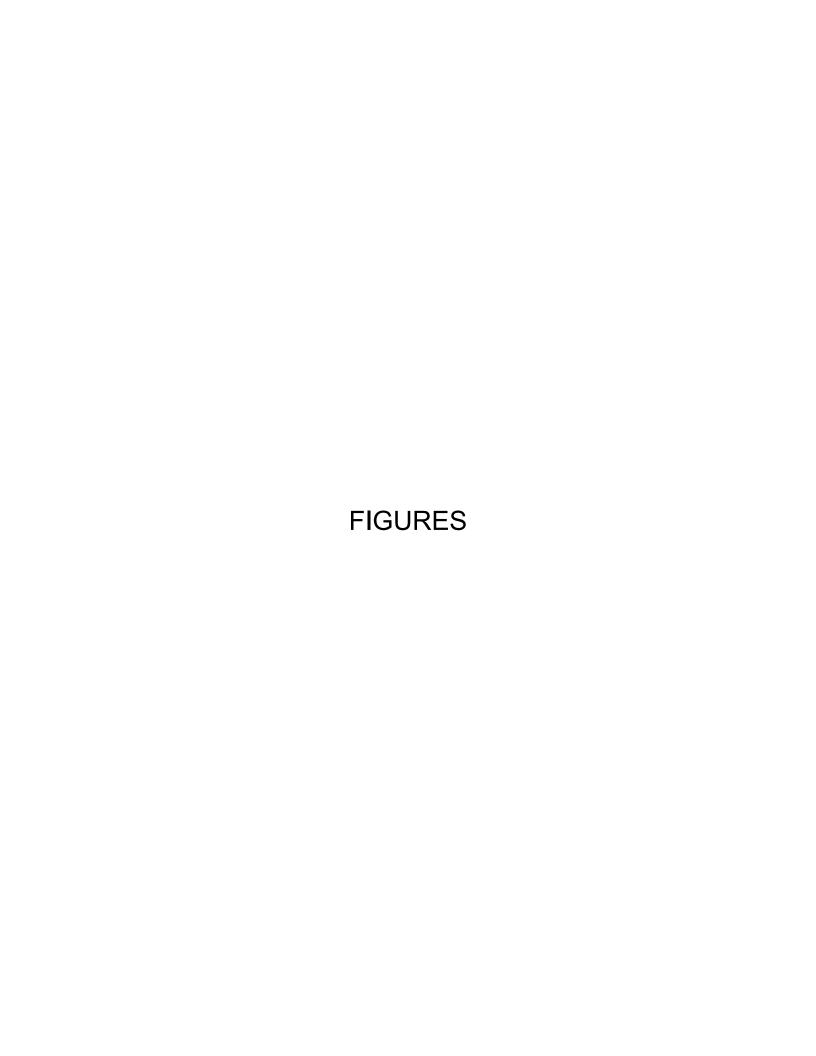
U = Indicates the analyte was not detected above the minimum laboratory reporting limit

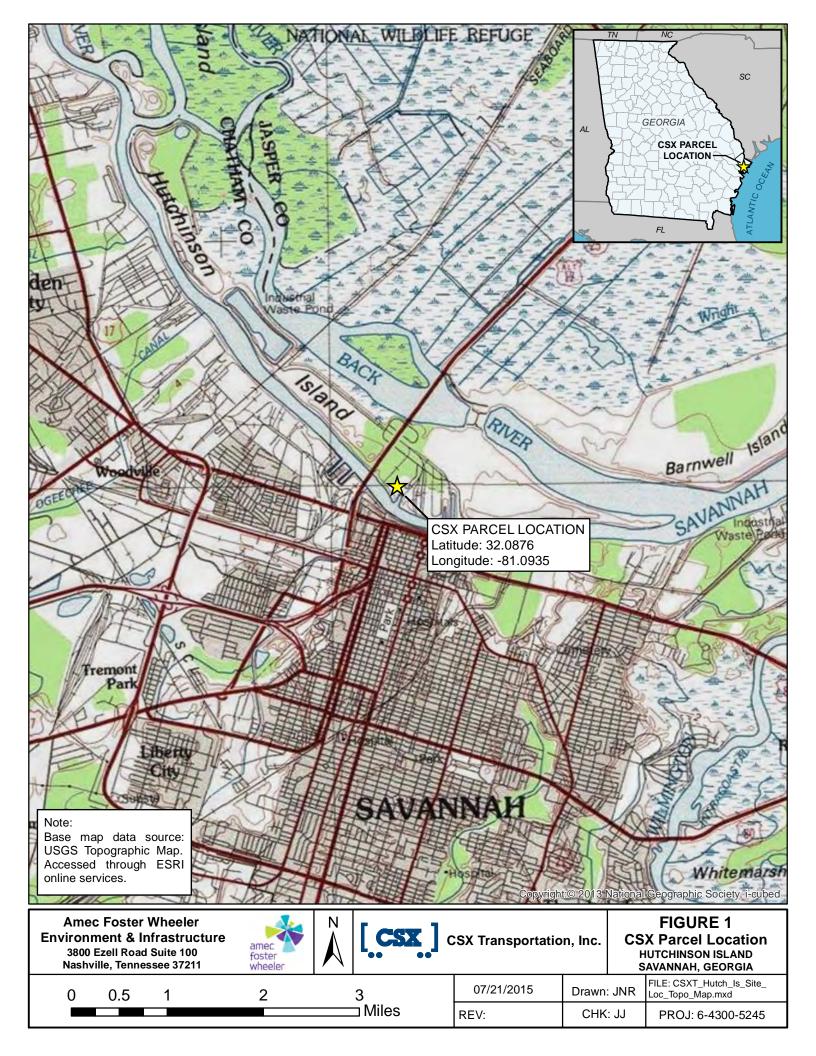
NA = Analyte was not analyzed.

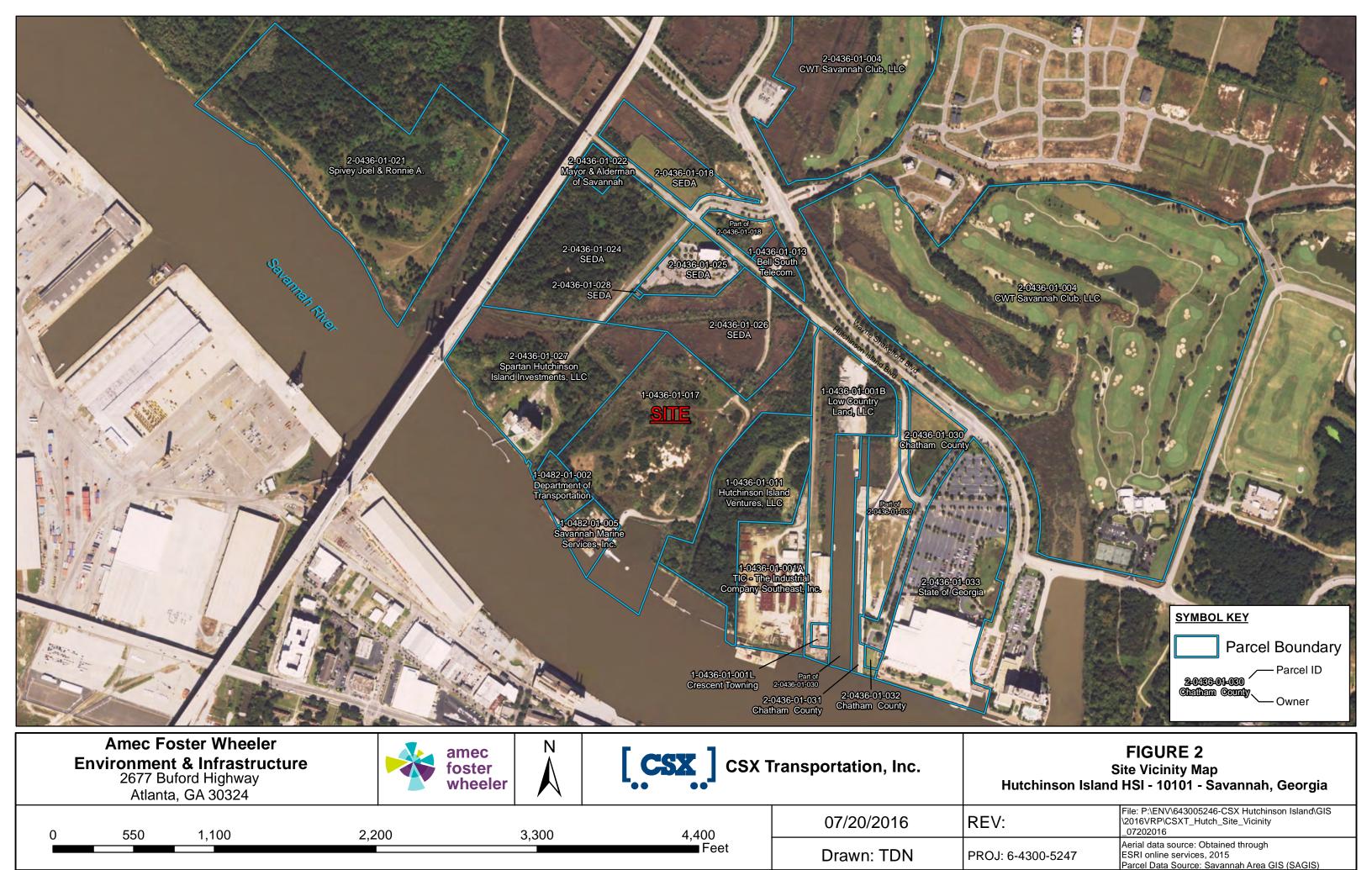
ND = None of the constituents were detected above the minimum laboratory reporting limit

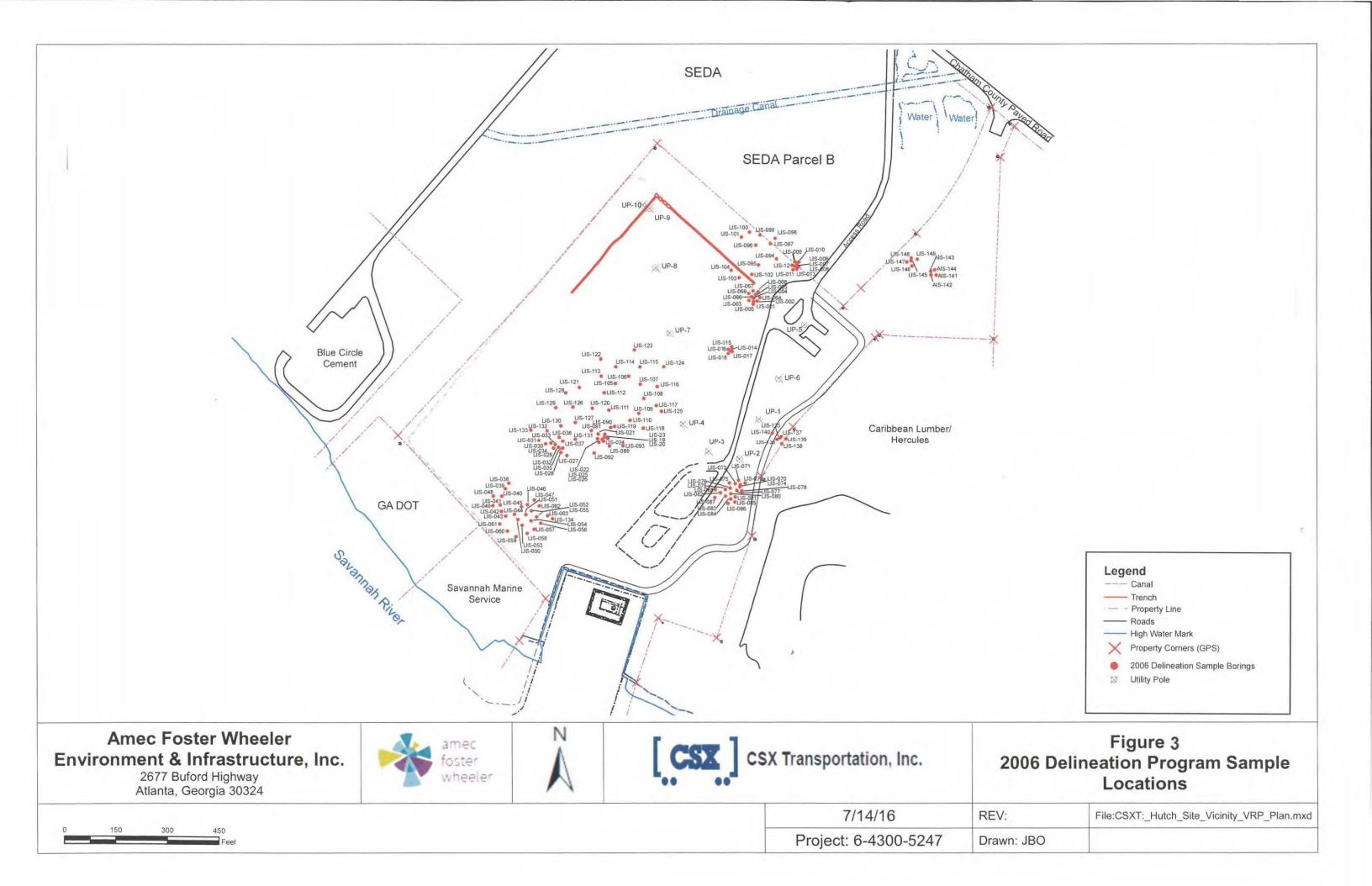
mg/L = milligrams per liter

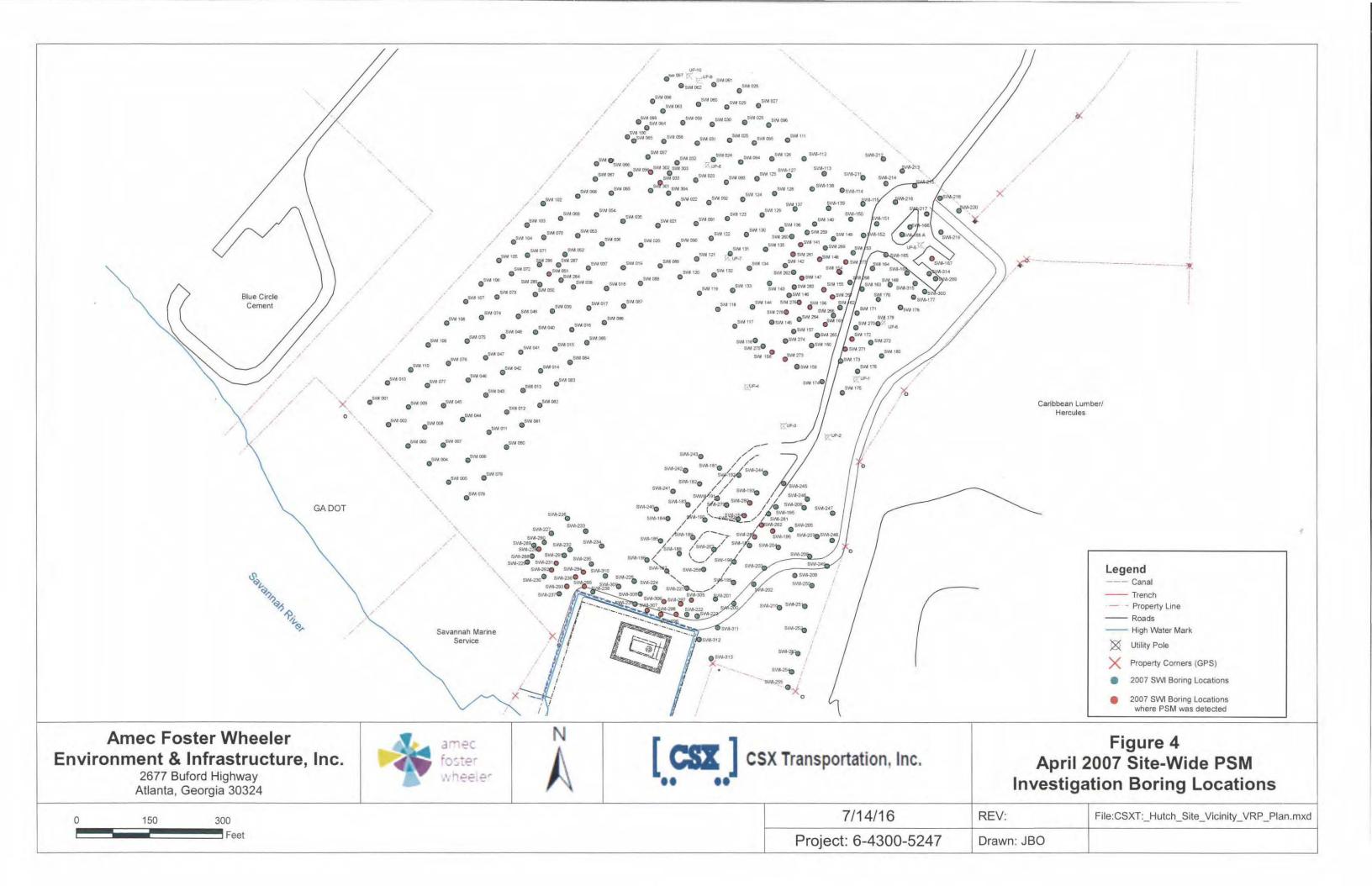
ug/L = micrograms per liter

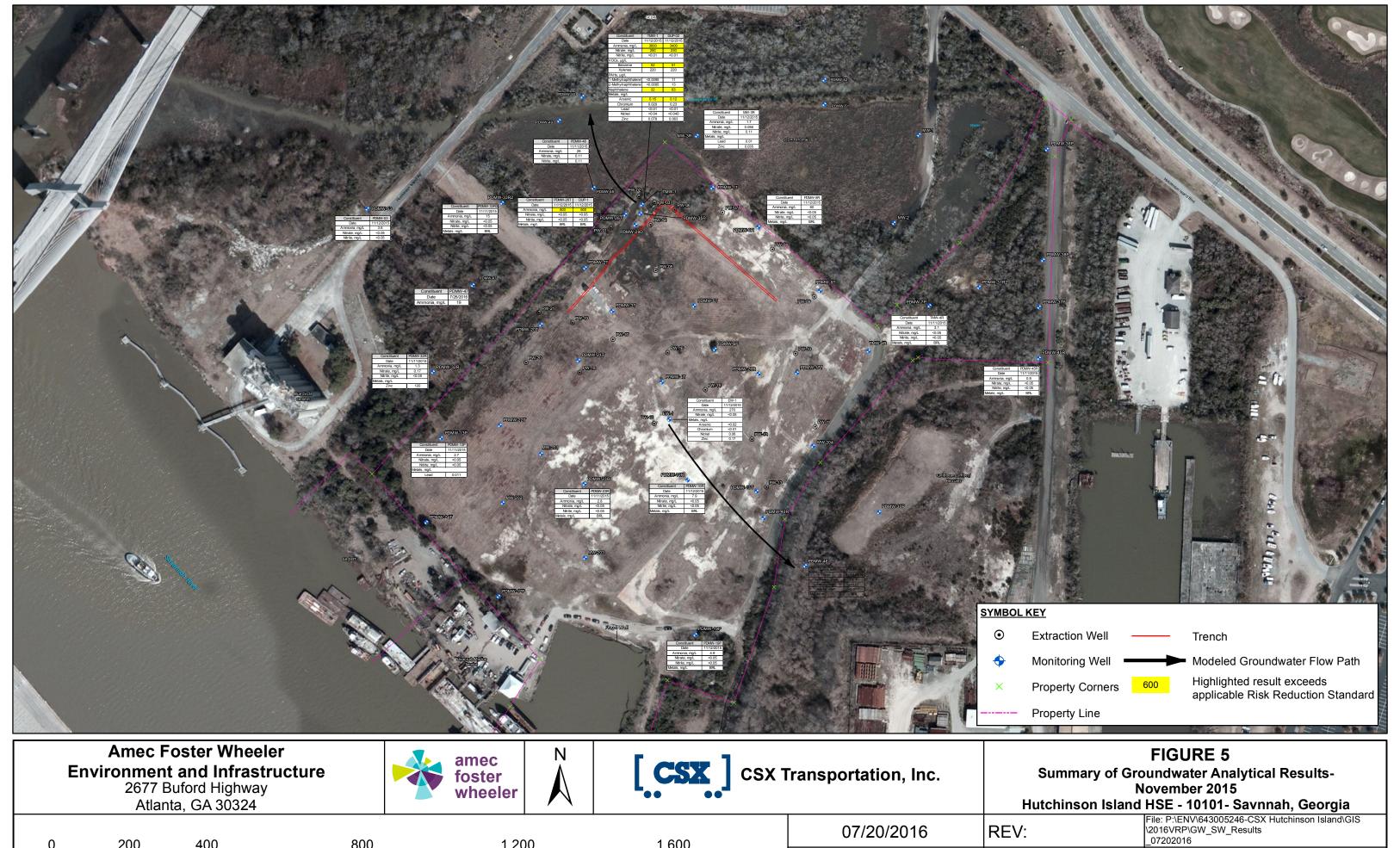












1,200 400 800 1,600 200 Feet

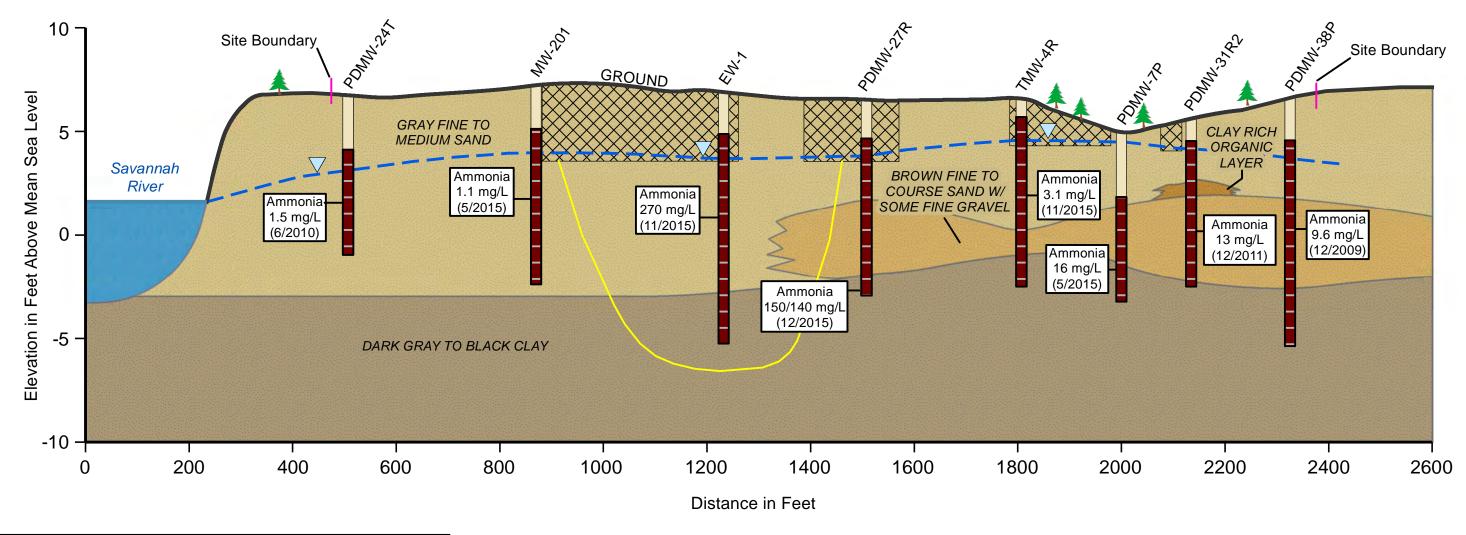
PROJ: 6-4300-5247

Drawn: TDN

Aerial data source: Obtained through ESRI online services, 2015 Parcel Data Source: Savannah Area GIS (SAGIS)

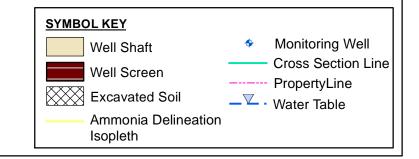








NOTES:
-Ammonia in groundwater data depicted is the most recent collected
-mg/L = milligrams per liter





CSX Transportation, Inc.

Cross Section A-A' - Hutchinson Island HSI - 10101 Savannah, Georgia

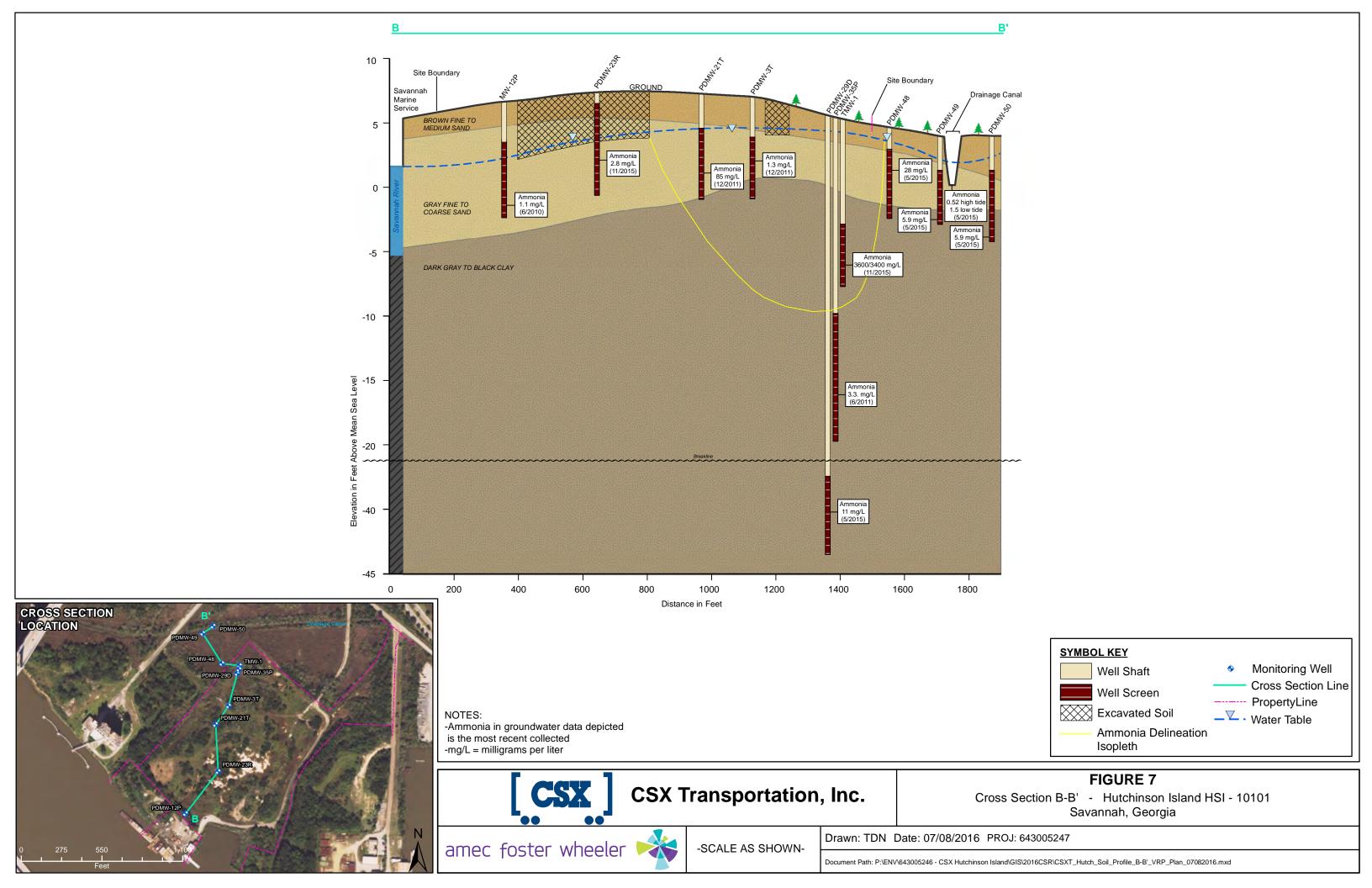
FIGURE 6

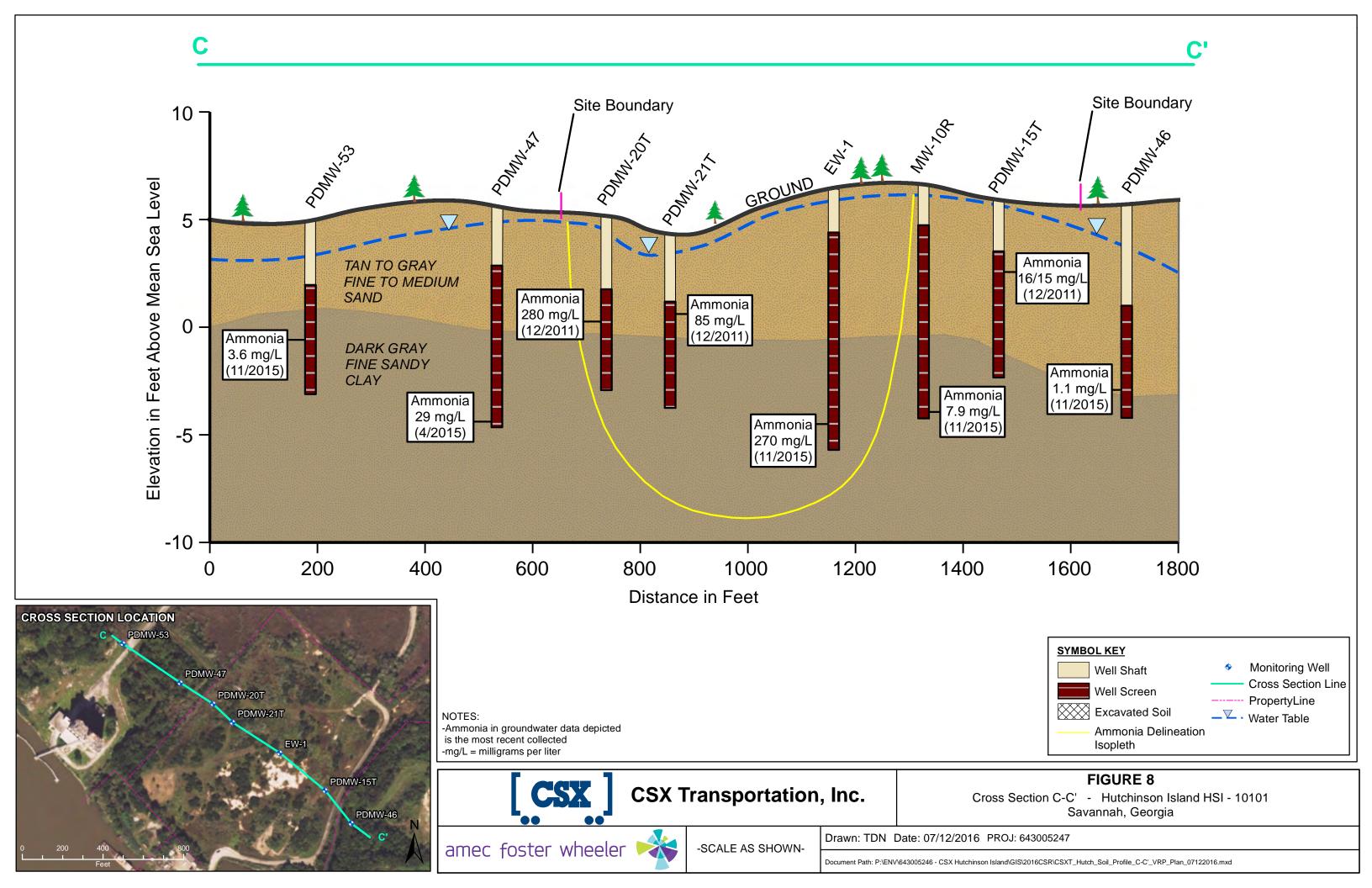


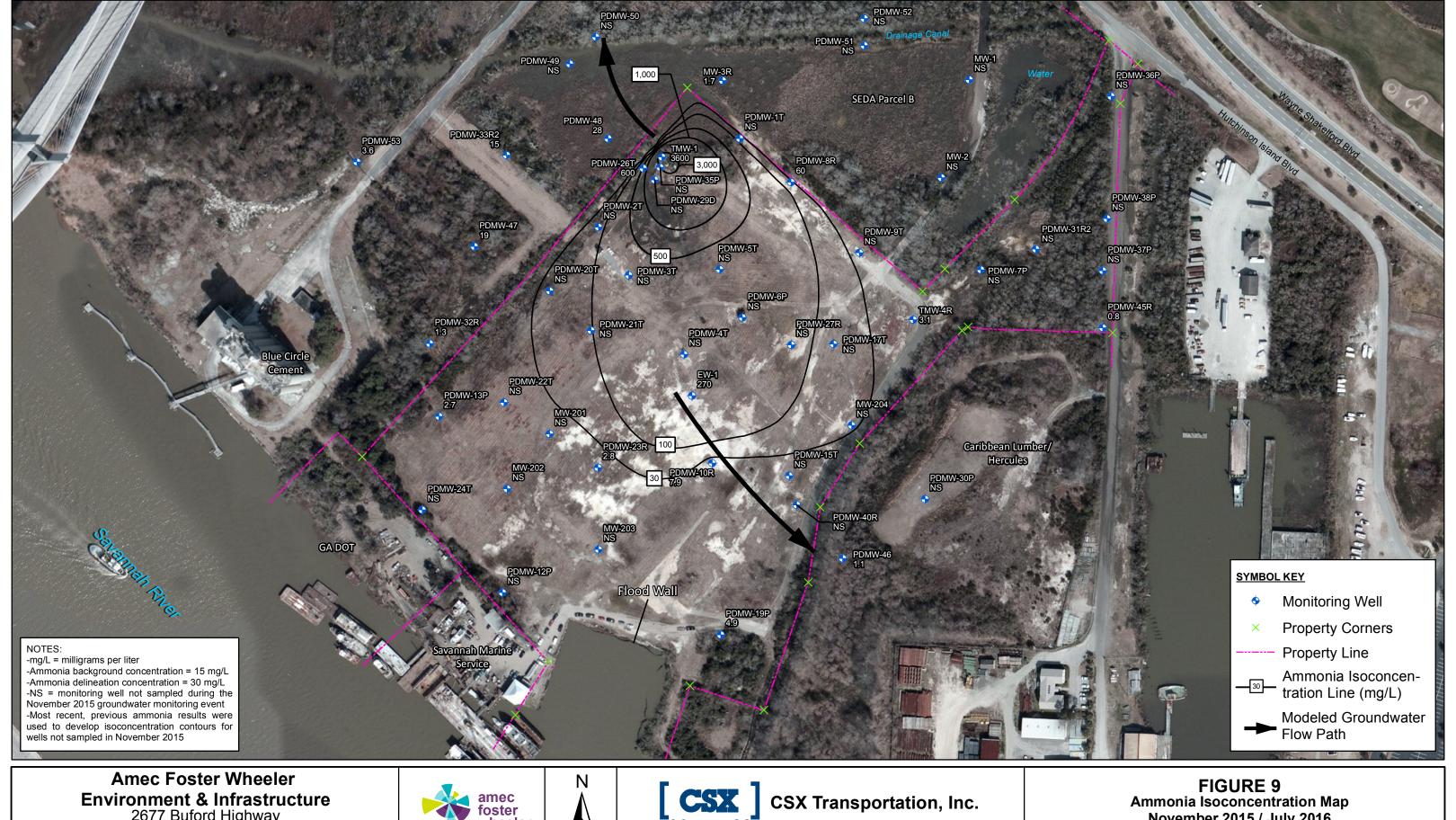


Drawn: TDN Date: 07/12/2016 PROJ: 643005247

Document Path: P:\ENV\643005246 - CSX Hutchinson Island\GIS\2016CSR\CSXT_Hutch_Soil_Profile_A-A'_VRP_Plan_07122016.mxd







2677 Buford Highway Atlanta, GA 30324

200

400



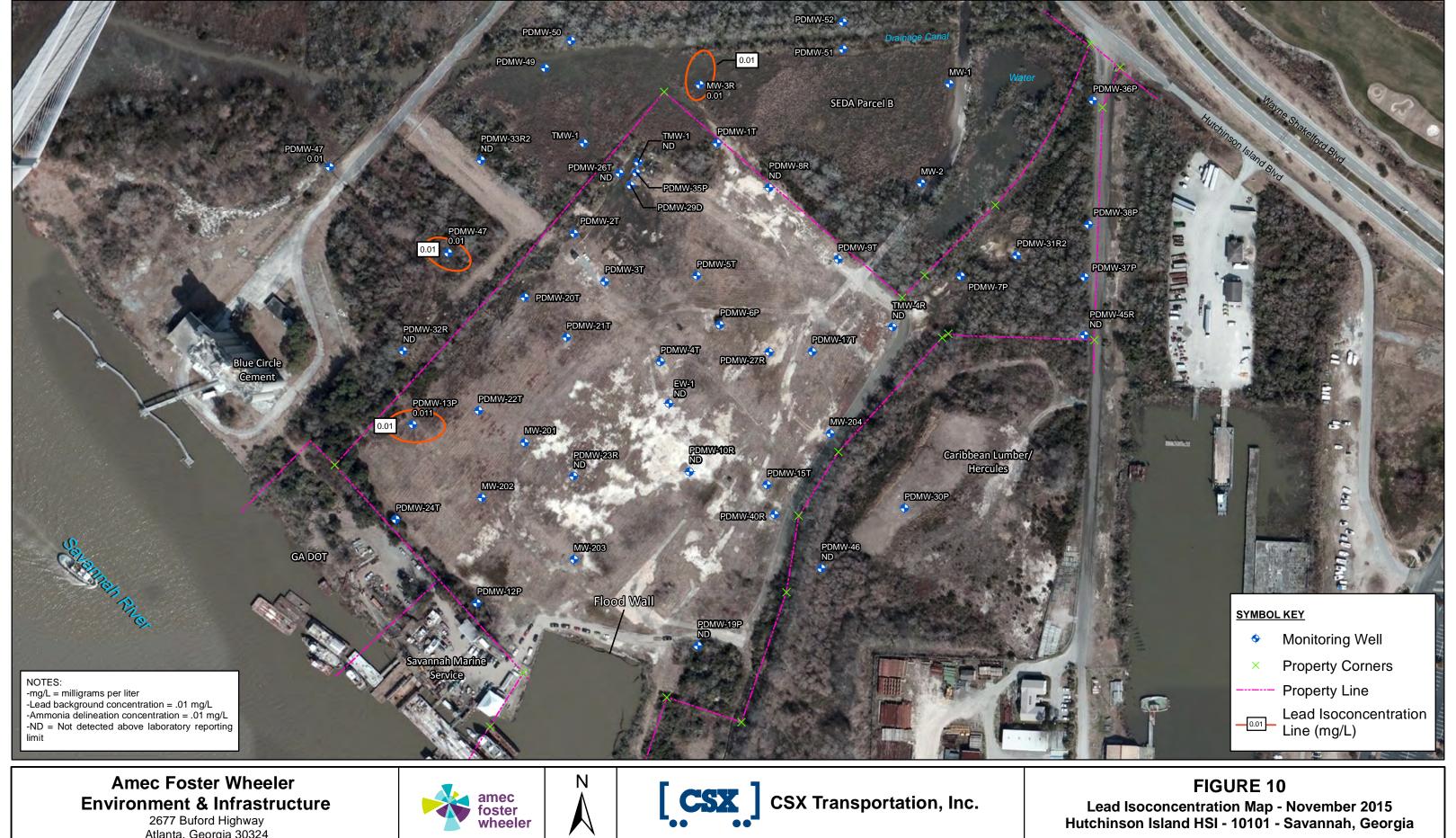
800

1,200

1,600

Ammonia Isoconcentration Map November 2015 / July 2016 Hutchinson Island HSI - 10101 - Savannah, Georgia

File: P:\643005256\GIS\2016VRP\ CSXT_Hutch_Is_ Ammonia_Conc_Dec2015Rpt.mxd 08/01/2016 REV: Aerial data source: Obtained through Drawn: TDN ESRI online services, 2015 PROJ: 6-4300-5247 Parcel Data Source: Savannah Area GIS (SAGIS)



Amec Foster Wheeler Environment & Infrastructure 2677 Buford Highway Atlanta, Georgia 30324 O 200 400 800 1,200 1,600 Feet CSX Transportation, Inc. CSX Transportation, Inc. FIGURE 10 Lead Isoconcentration Map - November 2015 Hutchinson Island HSI - 10101 - Savannah, Georgia O7/20/2016 REV: File: P:\ENV\643005246-CSX Hutchinson Island\GIS \(\frac{2016VRP\CSXT_Hutch_IS_Lead_Conc_Nov2015.mxd}{2016VRP\CSXT_Hutch_IS_Lead_Conc_Nov2015.mxd} PROJ: 6-4300-5267 Aerial data source: Obtained through ESRI online services, 2015 Parcel Data Source: Savannah Area GIS (SAGIS)



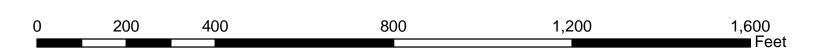
07/20/2016 REV: 1,200 800 1,600 200 Aerial data source: Obtained through ESRI online services, 2015 ■ Feet Drawn: TDN PROJ: 6-4300-5247 Parcel Data Source: Savannah Area GIS (SAGIS)



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Hutchinson Island HSI - 10101 - Savannah, Georgia

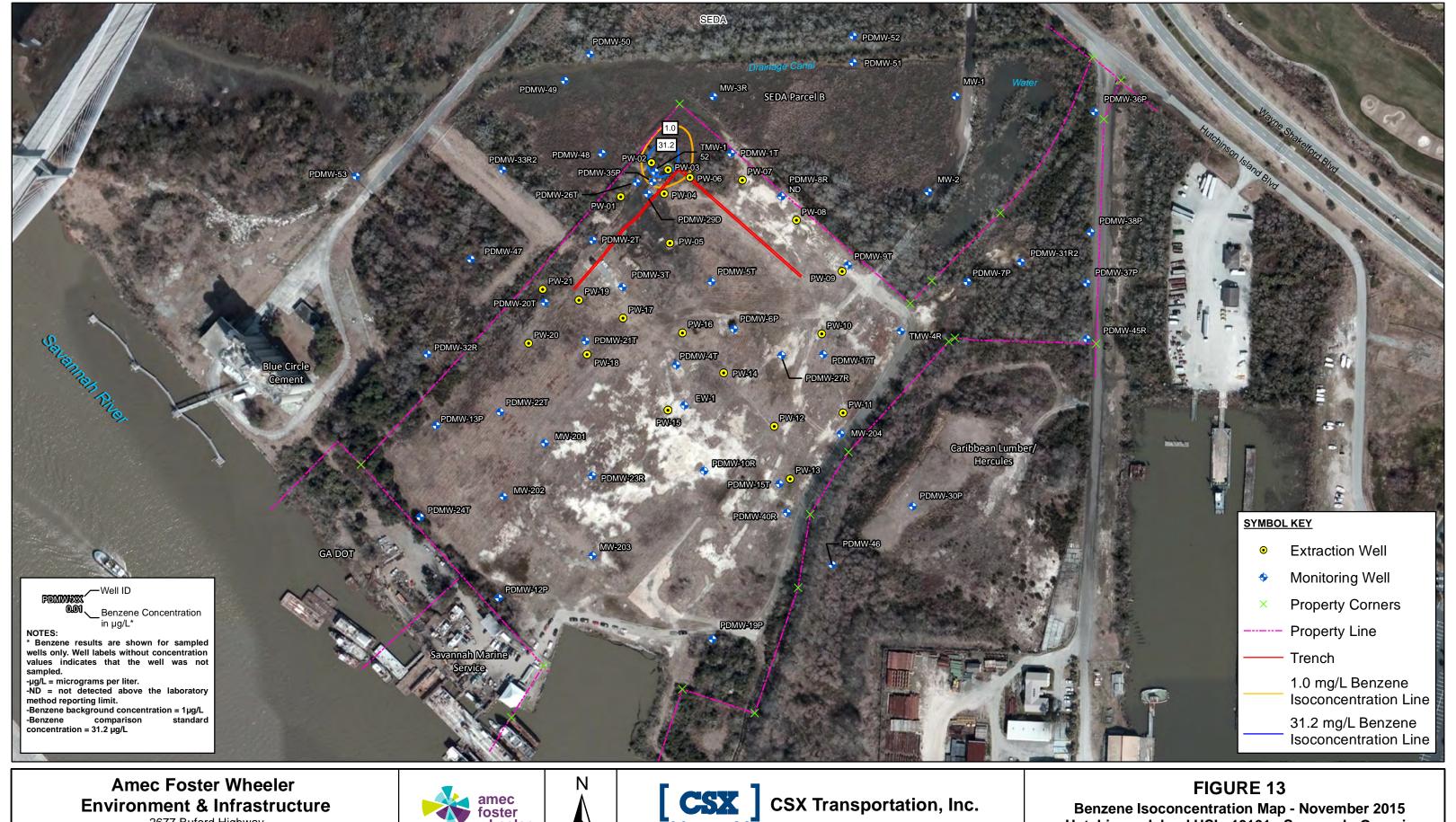


07/20/2016 REV:

Aerial data source: Obtained through ESRI online services, 2015

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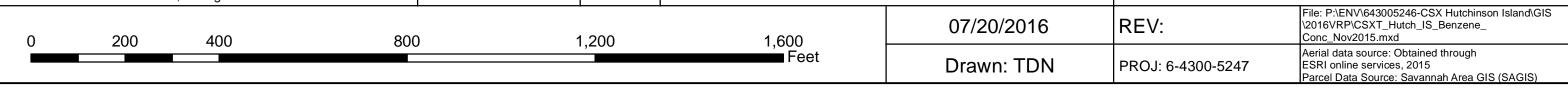
Drawn: TDN PROJ: 6-4300-5247 Parcel Data Source: Savannah Area GIS (SAGIS)

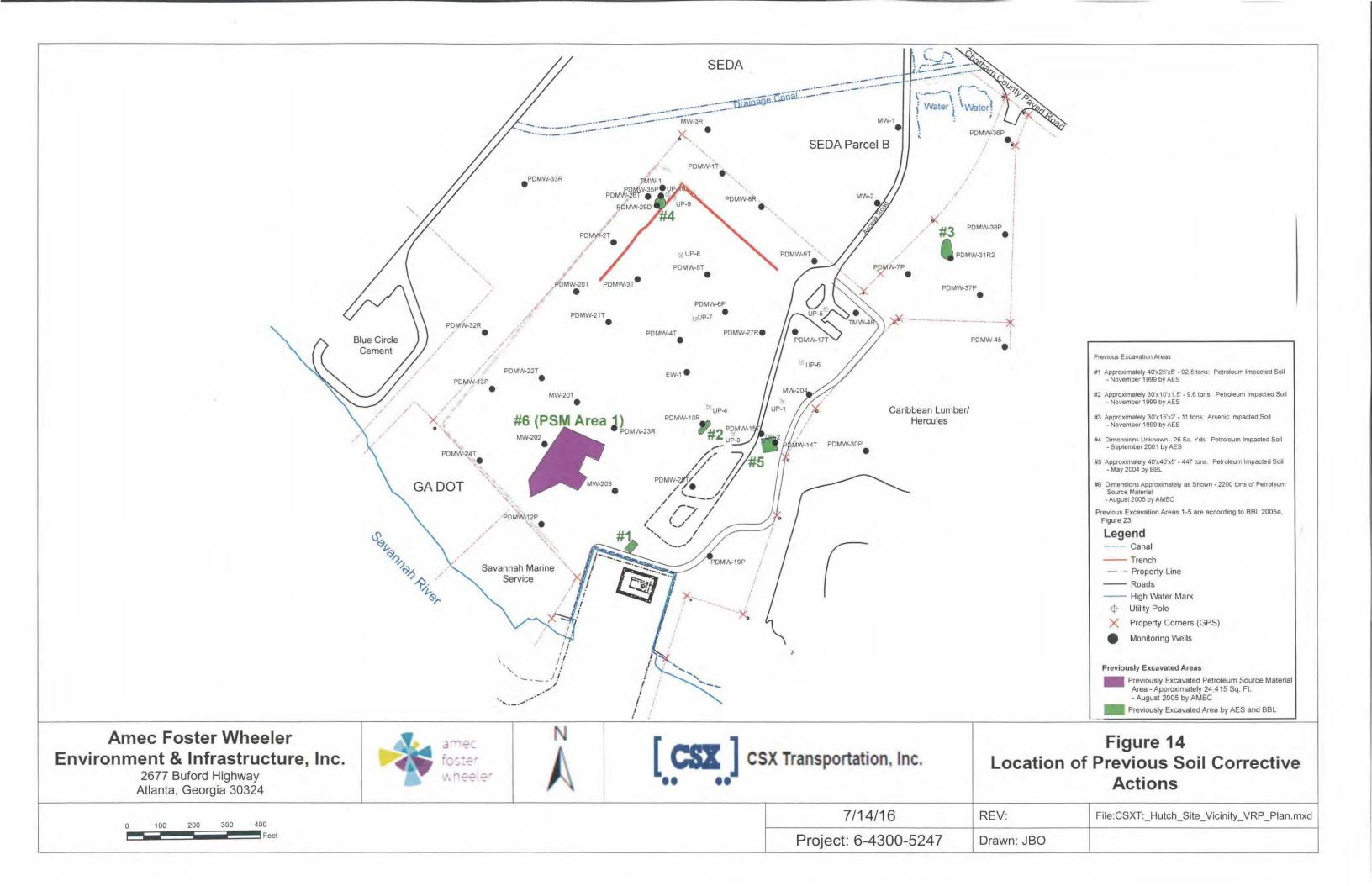


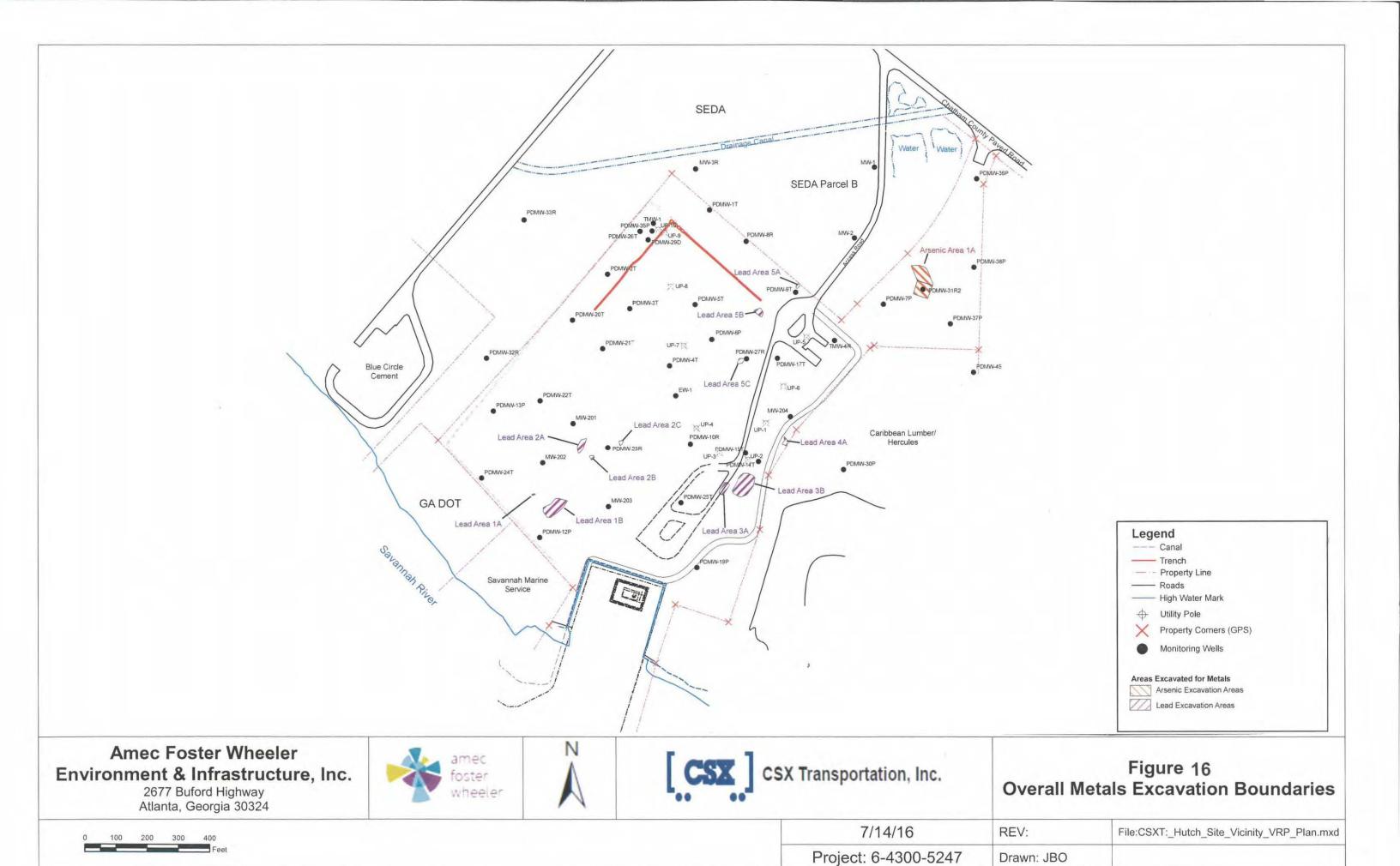
2677 Buford Highway Atlanta, Georgia 30324

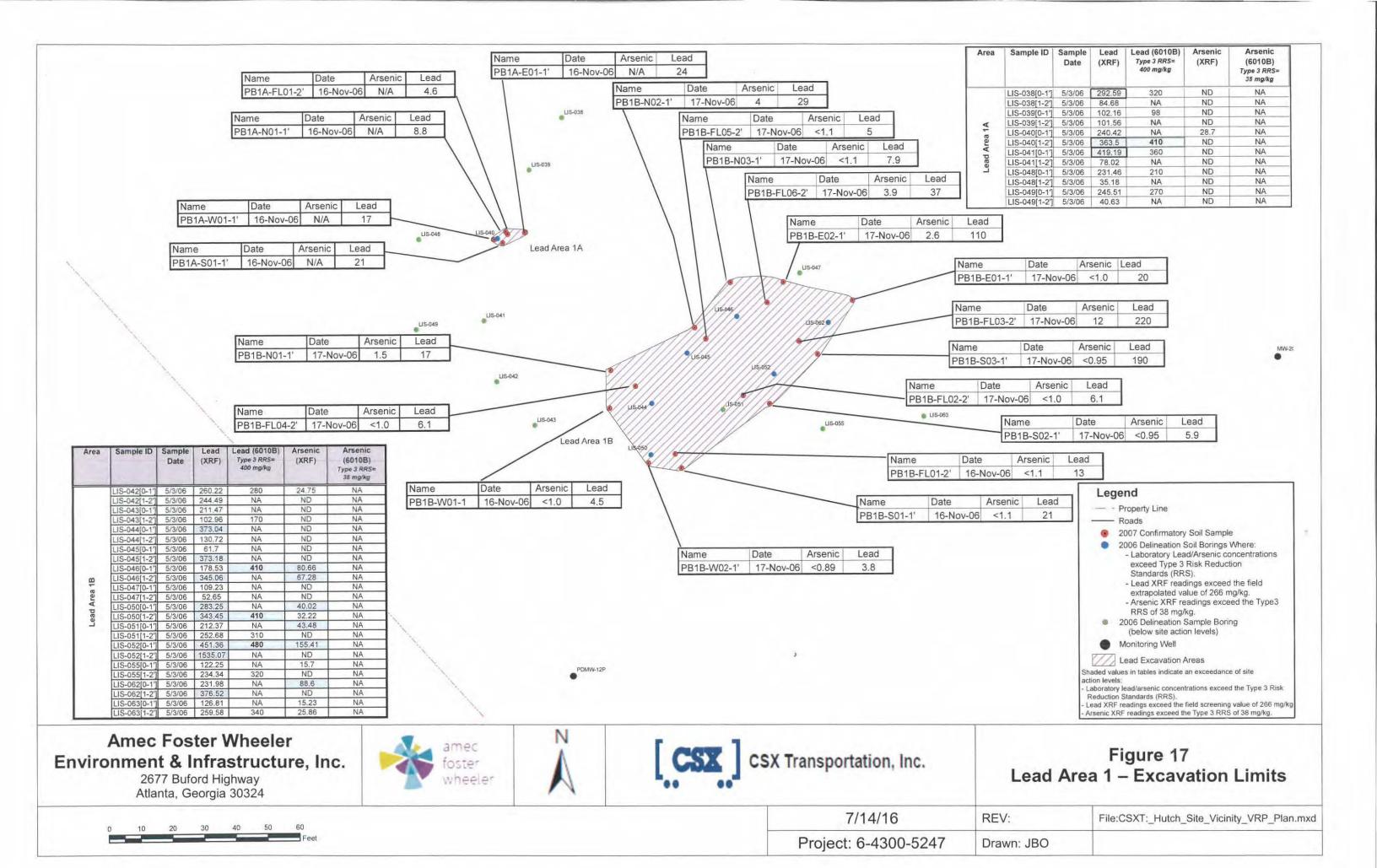


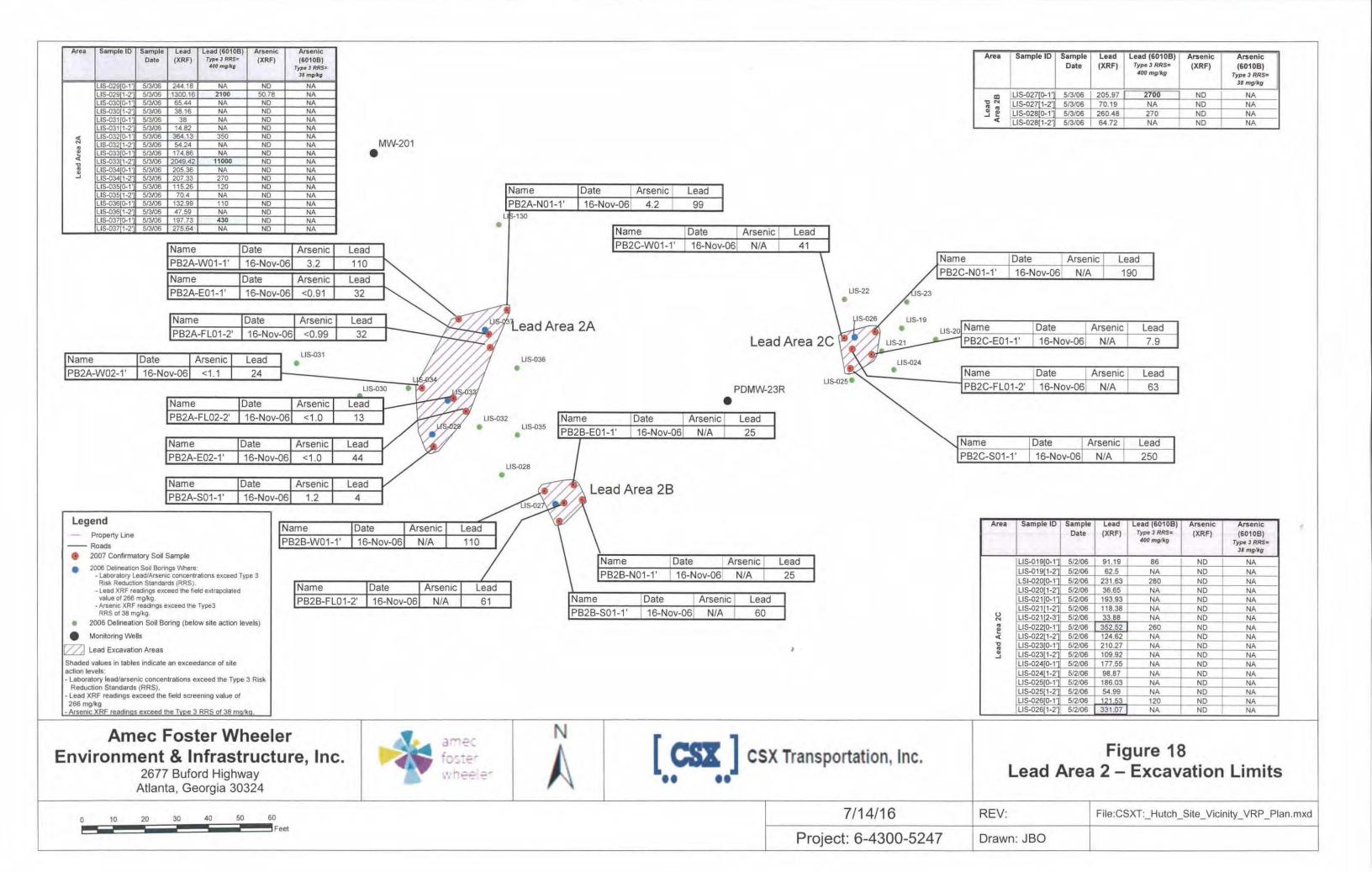
Hutchinson Island HSI - 10101 - Savannah, Georgia

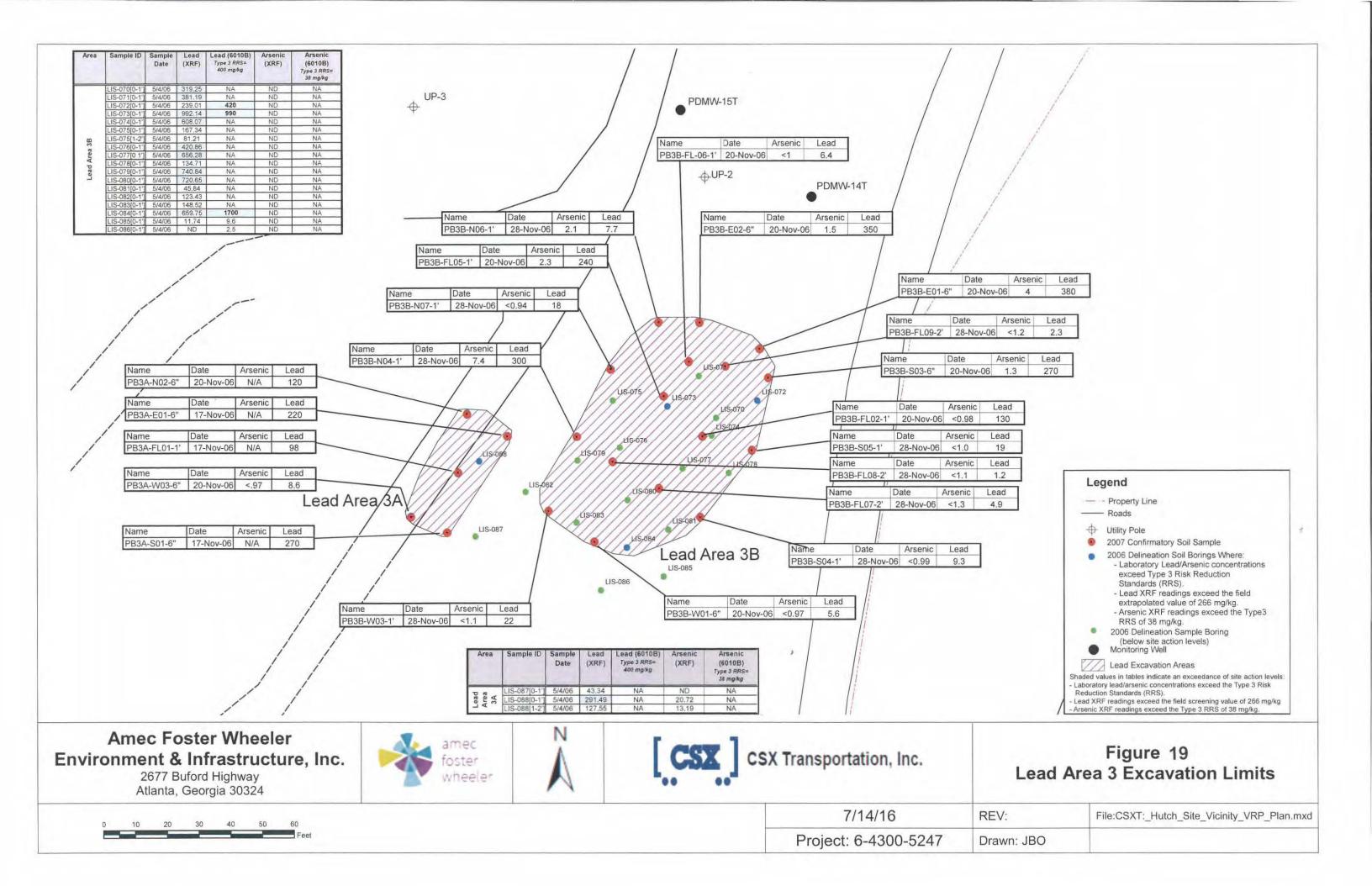


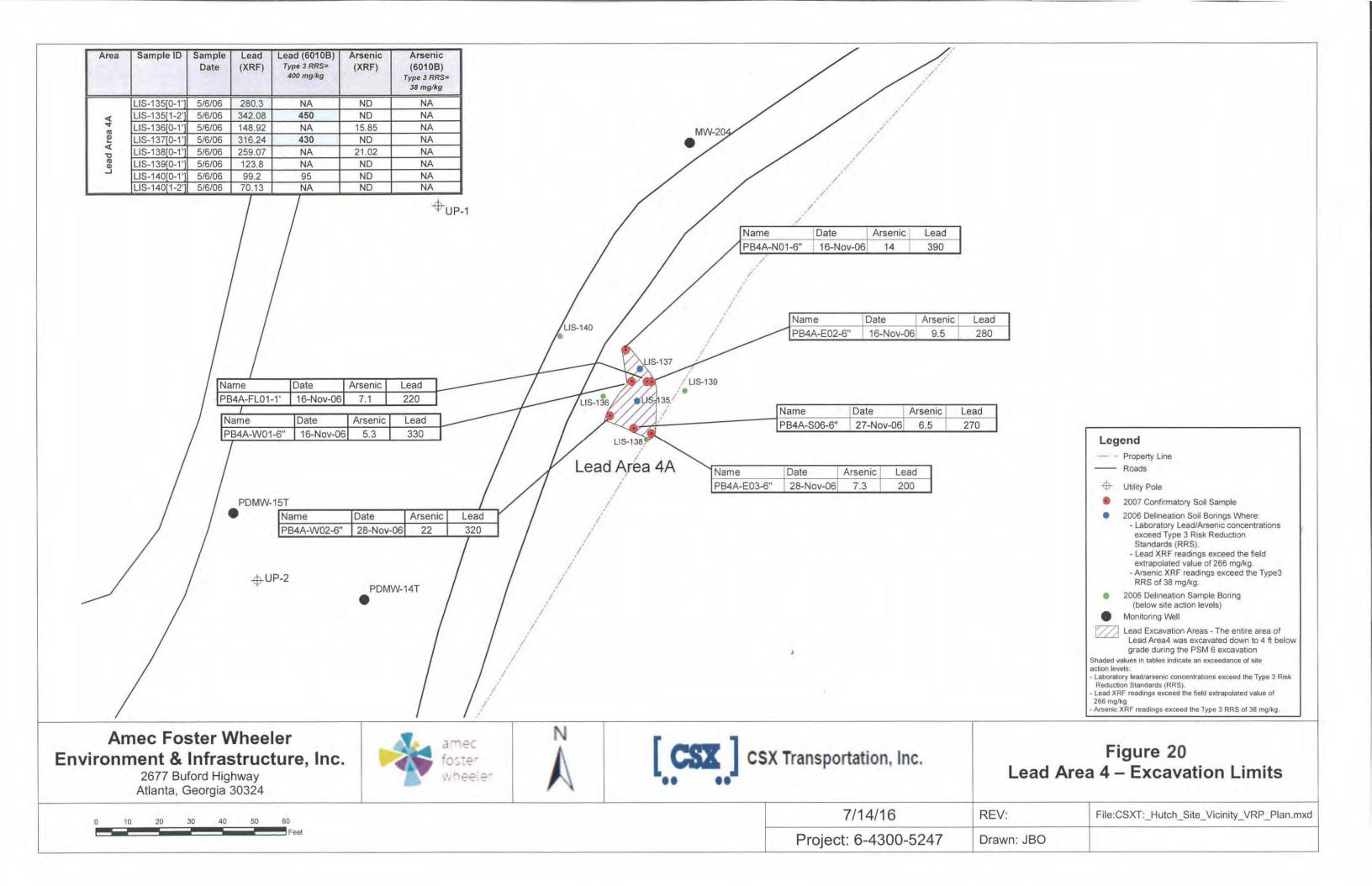


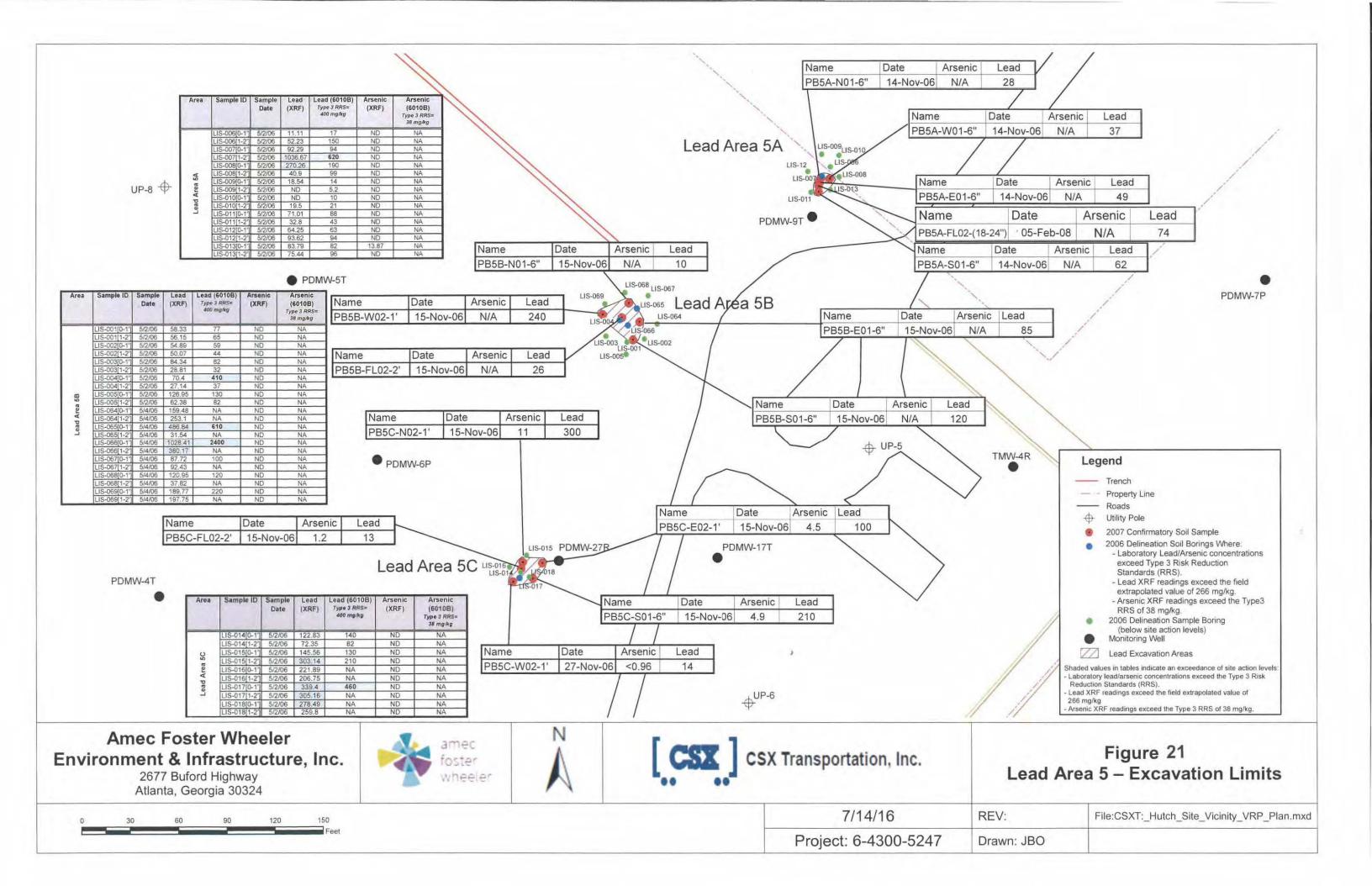


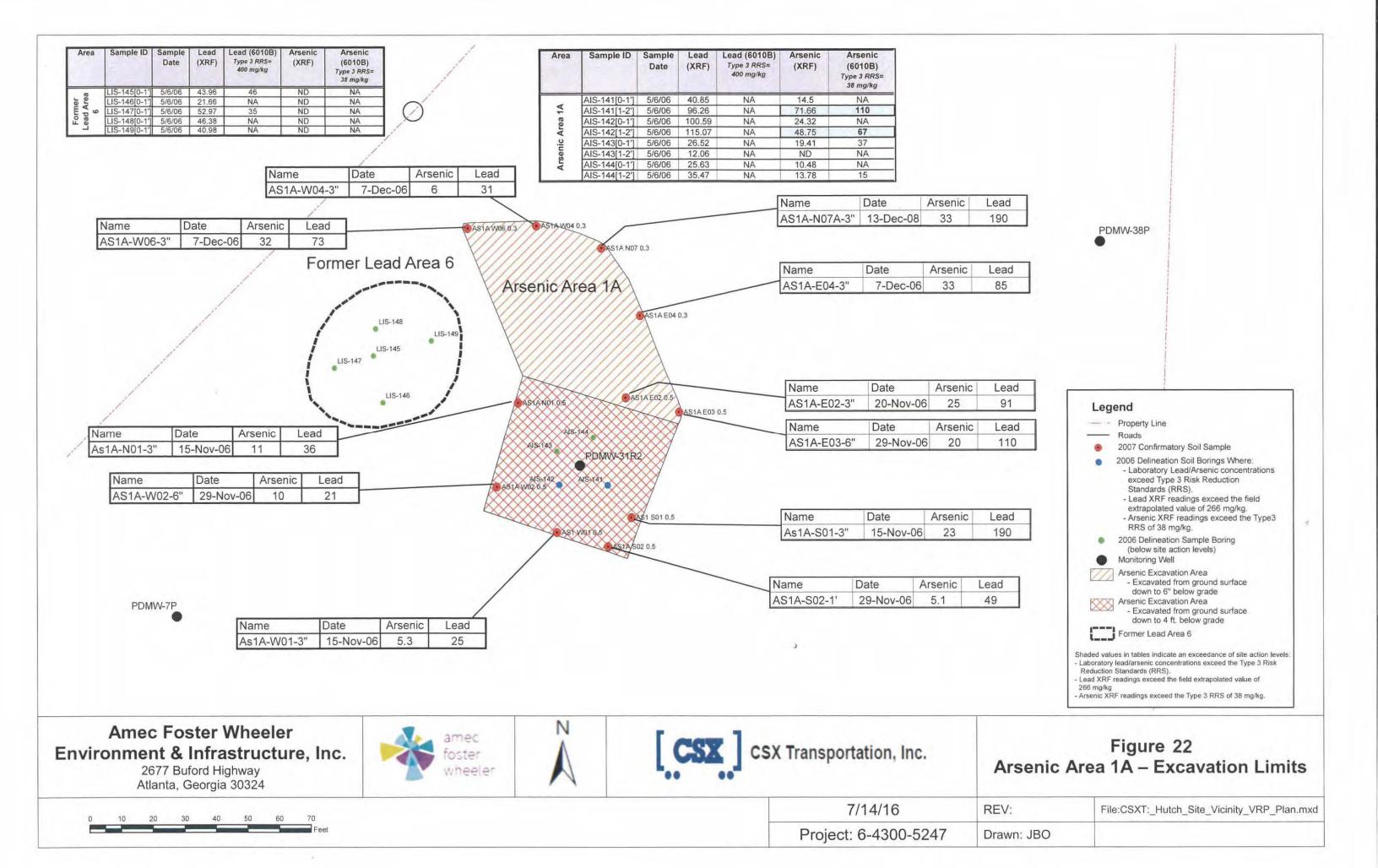


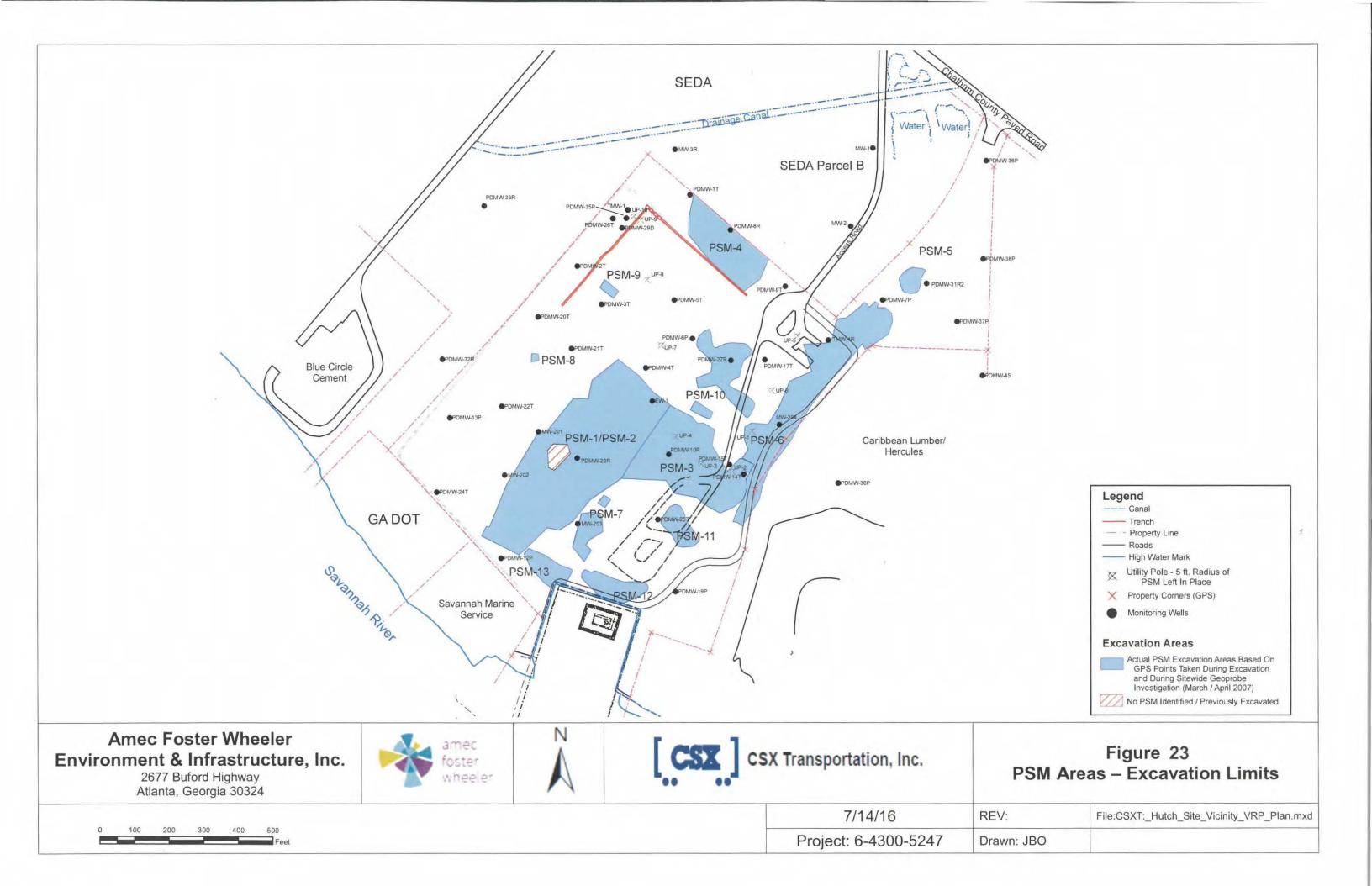


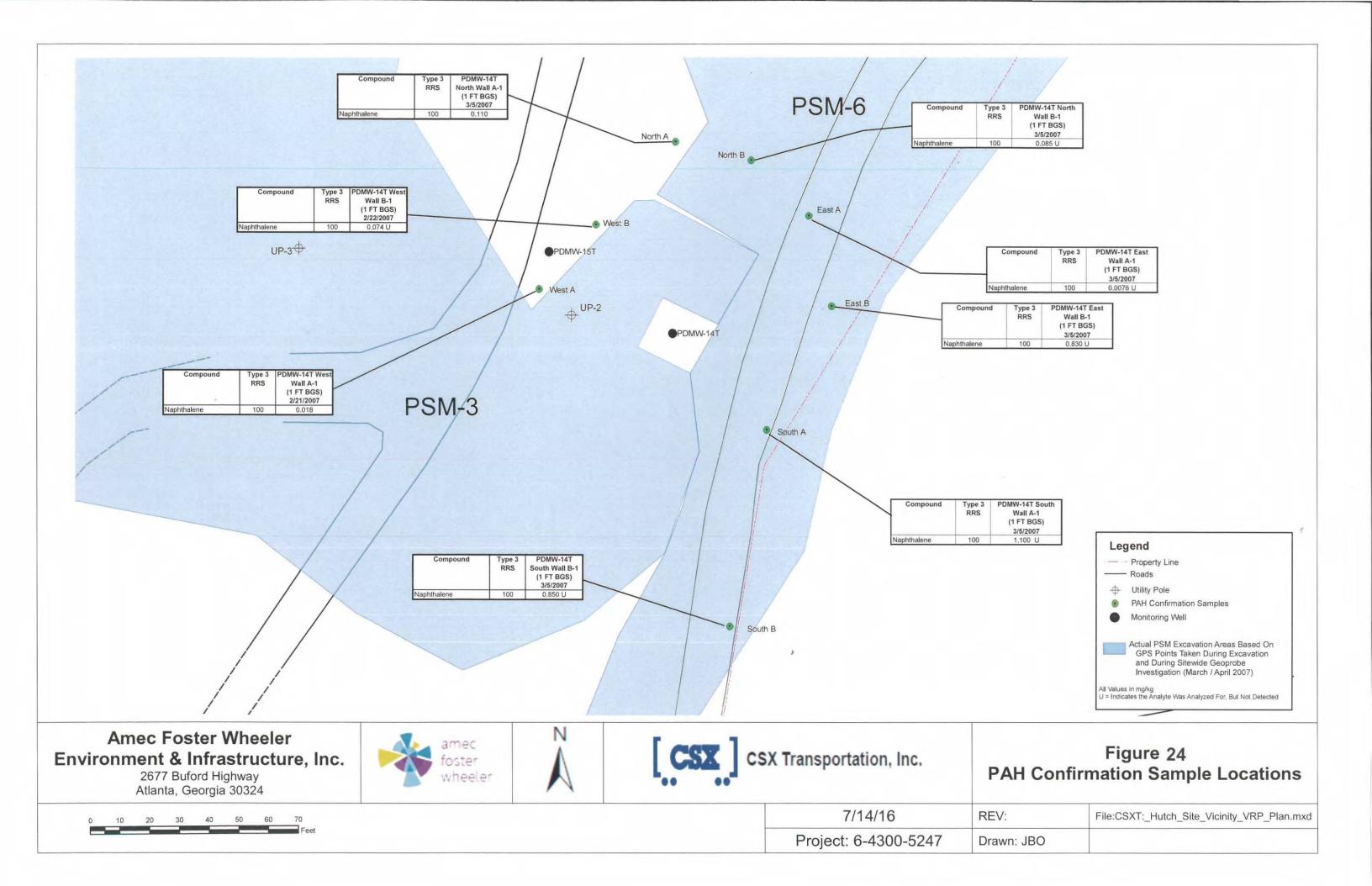


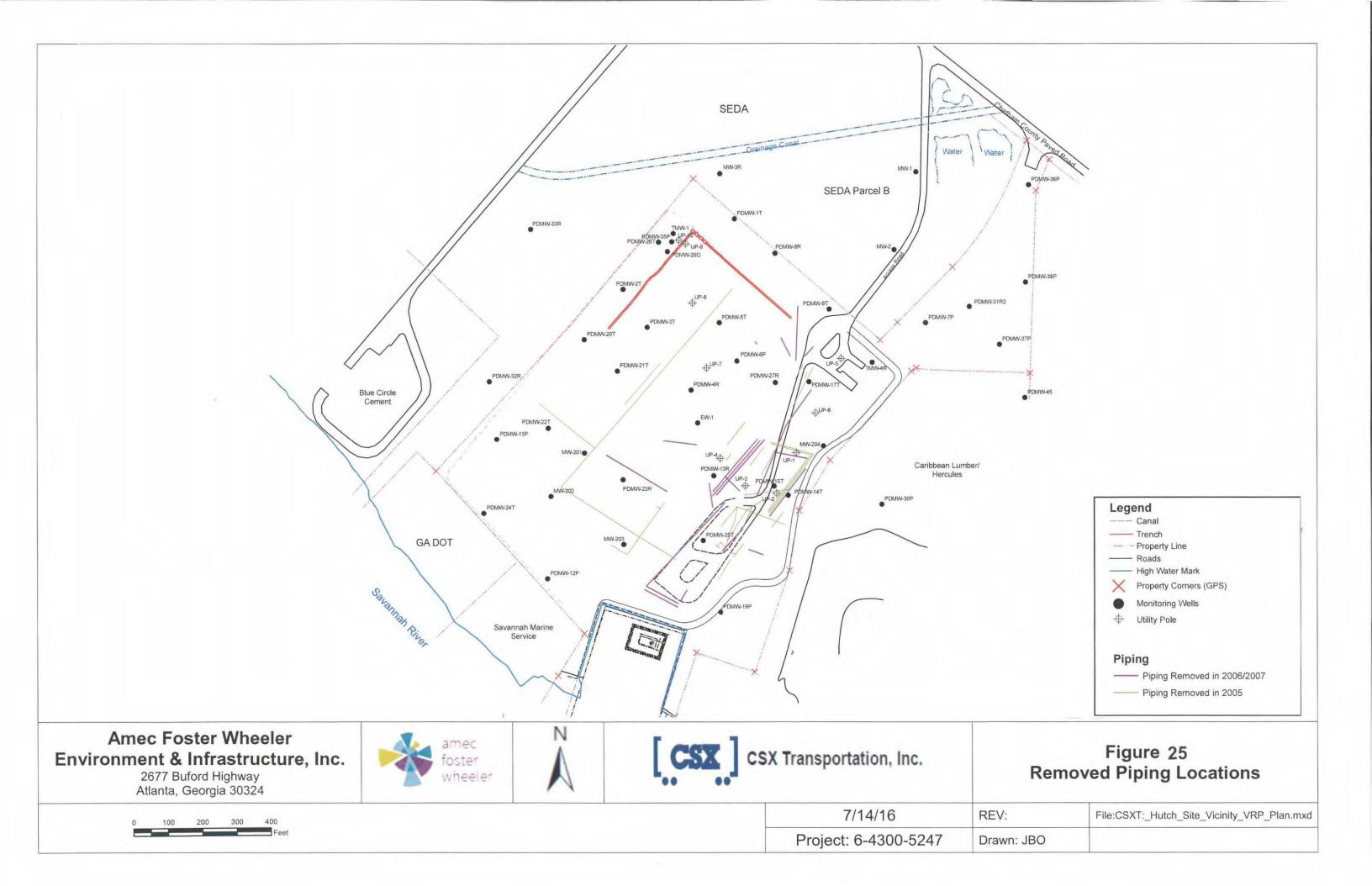












APPENDIX A LABORATORY DATA



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-101934-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 396 Plasters Avenue, NE Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Side Horey

Authorized for release by: 6/18/2014 5:46:41 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

Review your project results through
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Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-101934-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-101934-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

<u>RECEIPT</u>

The samples were received on 6/4/2014 8:44 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.8° C and 1.0° C.

There was a discrepancy noted between the COC and the container lable for sample PDMW-30R_06032014 (680-101934-9). Vials show PDMW-30P-06032014. The COC was used for login.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples ERB-01_06032014 (680-101934-1), FB-01_06032014 (680-101934-2), ERB-02-06032014 (680-101934-3), TMW-4R_06032014 (680-101934-4), MW-01_06032014 (680-101934-5), PDMW-8R_06032014 (680-101934-6), PDMW-45R_06032014 (680-101934-7), PDMW-29D_06032014 (680-101934-8), PDMW-30R_06032014 (680-101934-9), DUP-01_06032014 (680-101934-10), DUP-02_06032014 (680-101934-11) and TRIPBLANK_06032014 (680-101934-12) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples ERB-01_06032014 (680-101934-1), FB-01_06032014 (680-101934-2), ERB-02-06032014 (680-101934-3), TMW-4R_06032014 (680-101934-4), MW-01_06032014 (680-101934-5), PDMW-8R_06032014 (680-101934-6), PDMW-45R_06032014 (680-101934-7), PDMW-29D_06032014 (680-101934-8), PDMW-30R_06032014 (680-101934-9), DUP-01_06032014 (680-101934-10) and DUP-02_06032014 (680-101934-11) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and/or base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: DUP-02 06032014 (680-101934-11). These results have been reported and qualified.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 333838 was outside the method criteria for the following analyte(s): 2,4,6-Tribromophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: Surrogate recovery for the following sample(s) was outside control limits: PDMW-45R_06032014 (680-101934-7). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Both sets of results are reported. The sample that was extracted outside hold time will have an "H" Flag.

METALS (ICP

Samples ERB-01_06032014 (680-101934-1), FB-01_06032014 (680-101934-2), ERB-02-06032014 (680-101934-3), TMW-4R_06032014 (680-101934-4), MW-01_06032014 (680-101934-5), PDMW-8R_06032014 (680-101934-6), PDMW-45R_06032014 (680-101934-6), PDMW-29D_06032014 (680-101934-8), PDMW-30R_06032014 (680-101934-9), DUP-01_06032014 (680-101934-10) and DUP-02_06032014 (680-101934-11) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

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Case Narrative

TestAmerica Job ID: 680-101934-1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-101934-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

AMMONIA

Samples ERB-01_06032014 (680-101934-1), FB-01_06032014 (680-101934-2), ERB-02-06032014 (680-101934-3), TMW-4R_06032014 (680-101934-4), MW-01_06032014 (680-101934-5), PDMW-8R_06032014 (680-101934-6), PDMW-45R_06032014 (680-101934-6), PDMW-29D_06032014 (680-101934-8), PDMW-30R_06032014 (680-101934-9), DUP-01_06032014 (680-101934-10) and DUP-02_06032014 (680-101934-11) were analyzed for ammonia in accordance with EPA Method 350.1.

Method(s) 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 332667 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 350.1: Field Blank sample has a hit. Sample was originally run on 6/5/14 and has a result of 0.10043 (reference batch 680-332667). Sample was rerun on 6/6/14 and had a result of 0.05394 (reference batch 680-333058). Sample was repoured and re-run several times, but results continued to be high. Reagents were made fresh prior to analysis, but results were still high.

Samples TMW-4R_06032014 (680-101934-4)[5X], MW-01_06032014 (680-101934-5)[20X], PDMW-8R_06032014 (680-101934-6)[50X], PDMW-45R_06032014 (680-101934-7)[5X], PDMW-29D_06032014 (680-101934-8)[10X], DUP-01_06032014 (680-101934-10)[10X] and DUP-02_06032014 (680-101934-11)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples ERB-01_06032014 (680-101934-1), FB-01_06032014 (680-101934-2), ERB-02-06032014 (680-101934-3), TMW-4R_06032014 (680-101934-4), MW-01_06032014 (680-101934-5), PDMW-8R_06032014 (680-101934-6), PDMW-45R_06032014 (680-101934-6), PDMW-29D_06032014 (680-101934-8), PDMW-30R_06032014 (680-101934-9), DUP-01_06032014 (680-101934-10) and DUP-02_06032014 (680-101934-11) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 06/04/2014.

Method(s) 353.2: Sample 680-101934-2 (Field Blank) was observed to have an analyte hit in the NO3+NO2 channel; sample was reanalyzed on 06/05/14 with consistent results.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Χ Surrogate is outside control limits

Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

Toxicity Equivalent Quotient (Dioxin)

Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Savannah

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-101934-1	ERB-01_06032014	Water	06/03/14 10:15	06/04/14 08:44
680-101934-2	FB-01_06032014	Water	06/03/14 10:45	06/04/14 08:44
680-101934-3	ERB-02-06032014	Water	06/03/14 10:50	06/04/14 08:44
680-101934-4	TMW-4R_06032014	Water	06/03/14 12:30	06/04/14 08:44
680-101934-5	MW-01_06032014	Water	06/03/14 12:45	06/04/14 08:44
680-101934-6	PDMW-8R_06032014	Water	06/03/14 14:05	06/04/14 08:44
680-101934-7	PDMW-45R_06032014	Water	06/03/14 14:20	06/04/14 08:44
680-101934-8	PDMW-29D_06032014	Water	06/03/14 16:10	06/04/14 08:44
680-101934-9	PDMW-30R_06032014	Water	06/03/14 16:40	06/04/14 08:44
680-101934-10	DUP-01_06032014	Water	06/03/14 00:00	06/04/14 08:44
680-101934-11	DUP-02_06032014	Water	06/03/14 00:00	06/04/14 08:44
680-101934-12	TRIPBLANK_06032014	Water	06/03/14 00:00	06/04/14 08:44

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: ERB-01_06032014 Lab Sample ID: 680-101934-1

Date Collected: 06/03/14 10:15 Matrix: Water

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	ug/L			06/09/14 19:41	1
Ethylbenzene	1.0	U	1.0	ug/L			06/09/14 19:41	1
Toluene	1.0	U	1.0	ug/L			06/09/14 19:41	1
Xylenes, Total	2.0	U	2.0	ug/L			06/09/14 19:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130				06/09/14 19:41	1
Dibromofluoromethane	95		70 - 130				06/09/14 19:41	1
Toluene-d8 (Surr)	101		70 - 130				06/09/14 19:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2 Fluorohinhenyl			20 120				06/10/14 15:11	06/10/14 14:15	

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	2-Fluorobiphenyl	64		38 - 130	06/10/14 15:11	06/12/14 14:15	1
	Nitrobenzene-d5 (Surr)	79		39 - 130	06/10/14 15:11	06/12/14 14:15	1
L	Terphenyl-d14 (Surr)	92		10 - 143	06/10/14 15:11	06/12/14 14:15	1

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:35	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:35	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:35	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 15:35	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:35	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.11		0.050		mg/L			06/05/14 15:12	1
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:36	1

TestAmerica Savannah

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6/18/2014

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: FB-01_06032014

Lab Sample ID: 680-101934-2

Matrix: Water

Date Collected: 06/03/14 10:45 Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 20:04	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 20:04	1
Toluene	1.0	U	1.0		ug/L			06/09/14 20:04	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		70 - 130			-		06/09/14 20:04	1
Dibromofluoromethane	93		70 - 130					06/09/14 20:04	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 20:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Acenaphthylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Chrysene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Fluorene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
1-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
2-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Naphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Phenanthrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 14:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		38 - 130				06/10/14 15:11	06/12/14 14:38	1
Nitrobenzene-d5 (Surr)	73		39 - 130				06/10/14 15:11	06/12/14 14:38	1
Terphenyl-d14 (Surr)	86		10 - 143				06/10/14 15:11	06/12/14 14:38	1

Terpnenyi-a14 (Surr)	80		10 - 143				06/10/14 15:11	06/12/14 14:38	7
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:56	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:56	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:56	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 15:56	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:56	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.054		0.050		mg/L			06/06/14 11:56	1
Nitrate as N	0.17		0.050		mg/L			06/04/14 15:40	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: ERB-02-06032014 Lab Sample ID: 680-101934-3

Date Collected: 06/03/14 10:50 Matrix: Water Date Received: 06/04/14 08:44

Method: 8260B - Volatile Organic	c Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 20:27	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 20:27	1
Toluene	1.0	U	1.0		ug/L			06/09/14 20:27	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 20:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130			-		06/09/14 20:27	1
Dibromofluoromethane	98		70 - 130					06/09/14 20:27	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 20:27	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		38 - 130				06/10/14 15:11	06/12/14 15:02	1
Nitrobenzene-d5 (Surr)	75		39 - 130				06/10/14 15:11	06/12/14 15:02	1
Terphenyl-d14 (Surr)	91		10 - 143				06/10/14 15:11	06/12/14 15:02	1

Terpnenyi-a14 (Surr)	91		10 - 143				06/10/14 15:11	06/12/14 15:02	7
Method: 6010C - Metals (ICP) Analyte	Rosult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20				ug/L		06/06/14 10:16	06/10/14 16:01	1
Chromium		U	10		ug/L		06/06/14 10:16	06/10/14 16:01	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:01	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:01	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:01	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.10		0.050		mg/L			06/05/14 15:21	1
Nitrate as N	0.12		0.050		mg/L			06/04/14 15:41	1

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: TMW-4R_06032014

Date Collected: 06/03/14 12:30

Lab Sample ID: 680-101934-4 Matrix: Water

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 20:50	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 20:50	1
Toluene	1.0	U	1.0		ug/L			06/09/14 20:50	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 20:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		70 - 130			-		06/09/14 20:50	1
Dibromofluoromethane	96		70 - 130					06/09/14 20:50	1
Toluene-d8 (Surr)	103		70 - 130					06/09/14 20:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 15:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		38 - 130				06/10/14 15:11	06/12/14 15:25	1
Nitrohenzene-d5 (Surr)	6.1		20 120				06/10/14 15:11	06/12/14 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		38 - 130	06/10/14 15:11	06/12/14 15:25	1
Nitrobenzene-d5 (Surr)	64		39 - 130	06/10/14 15:11	06/12/14 15:25	1
Terphenyl-d14 (Surr)	52		10 - 143	06/10/14 15:11	06/12/14 15:25	1

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:05	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:05	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:05	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:05	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:05	1
_ _									

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	6.1		0.25		mg/L			06/05/14 15:50	5
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:43	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101934-5

Matrix: Water

Client Sample ID: MW-01_	06032014								
Data Callacted: 06/02/44 42:45									

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 21:13	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 21:13	1
Toluene	1.0	U	1.0		ug/L			06/09/14 21:13	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 21:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130			-		06/09/14 21:13	1
Dibromofluoromethane	93		70 - 130					06/09/14 21:13	1
Toluene-d8 (Surr)	101		70 - 130					06/09/14 21:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Acenaphthylene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Anthracene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Benzo[a]anthracene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Benzo[a]pyrene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Benzo[b]fluoranthene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Benzo[g,h,i]perylene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Benzo[k]fluoranthene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Chrysene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Dibenz(a,h)anthracene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Fluoranthene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Fluorene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
1-Methylnaphthalene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
2-Methylnaphthalene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Naphthalene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Phenanthrene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Pyrene	9.5	U	9.5		ug/L		06/10/14 15:11	06/12/14 15:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenvl	59		38 - 130				06/10/14 15:11	06/12/14 15:48	

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		38 - 130	06	6/10/14 15:11	06/12/14 15:48	1
Nitrobenzene-d5 (Surr)	72		39 - 130	06	6/10/14 15:11	06/12/14 15:48	1
Terphenyl-d14 (Surr)	61		10 - 143	06	6/10/14 15:11	06/12/14 15:48	1
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Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	
Arsenic	20	U	20		ug/L	_	06/06/14 10:16	06/10/14 16:18	
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:18	

Chromium	10 U	10	ug/L	06/06/14 10:16	06/10/14 16:18
Lead	10 U	10	ug/L	06/06/14 10:16	06/10/14 16:18
Nickel	40 U	40	ug/L	06/06/14 10:16	06/10/14 16:18
Zinc	20 U	20	ug/L	06/06/14 10:16	06/10/14 16:18

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	25		1.0		mg/L			06/05/14 16:09	20
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:46	1

TestAmerica Savannah

Dil Fac

Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-8R_06032014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101934-6

Matrix: Water

Date Collected: 06/03/14 14:05 Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 21:37	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 21:37	1
Toluene	1.0	U	1.0		ug/L			06/09/14 21:37	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		70 - 130			-		06/09/14 21:37	1
Dibromofluoromethane	95		70 - 130					06/09/14 21:37	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 21:37	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		38 - 130				06/10/14 15:11	06/12/14 16:12	1
Nitrobenzene-d5 (Surr)	68		39 - 130				06/10/14 15:11	06/12/14 16:12	1
Terphenyl-d14 (Surr)	62		10 - 143				06/10/14 15:11	06/12/14 16:12	1

resplicitly a 14 (dail)	02		10 - 140				00/10/14 10:11	00/12/14 10:12	,
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29		20		ug/L		06/06/14 10:16	06/10/14 16:22	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:22	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:22	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:22	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:22	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	62		2.5		mg/L			06/05/14 16:09	50
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:47	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101934-7

Matrix: Water

Client Sample ID: PDMW-45R_06032014 Date Collected: 06/03/14 14:20

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 22:00	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 22:00	1
Toluene	1.0	U	1.0		ug/L			06/09/14 22:00	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 22:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		70 - 130			_		06/09/14 22:00	1
Dibromofluoromethane	94		70 - 130					06/09/14 22:00	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 22:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	24	X	38 - 130				06/10/14 15:11	06/12/14 16:35	1
Nitrobenzene-d5 (Surr)	22	X	39 - 130				06/10/14 15:11	06/12/14 16:35	1
Terphenyl-d14 (Surr)	48		10 - 143				06/10/14 15:11	06/12/14 16:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Acenaphthylene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Anthracene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Benzo[a]anthracene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Benzo[a]pyrene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Benzo[b]fluoranthene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Benzo[g,h,i]perylene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Benzo[k]fluoranthene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Chrysene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Dibenz(a,h)anthracene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Fluoranthene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Fluorene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1

TestAmerica Savannah

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Client Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Lab Sample ID: 680-101934-7

Matrix: Water

Client Sample ID: PDMW-45R_06032014

Date Collected: 06/03/14 14:20 Date Received: 06/04/14 08:44

Lead

Nickel

Zinc

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
1-Methylnaphthalene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
2-Methylnaphthalene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Naphthalene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Phenanthrene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Pyrene	9.4	UH	9.4		ug/L		06/11/14 16:18	06/12/14 19:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		38 - 130				06/11/14 16:18	06/12/14 19:55	1
Nitrobenzene-d5 (Surr)	72		39 _ 130				06/11/14 16:18	06/12/14 19:55	1
Terphenyl-d14 (Surr)	54		10 - 143				06/11/14 16:18	06/12/14 19:55	1
- Method: 6010C - Metals (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arassis		П			ug/L		06/06/14 10:16	06/10/14 16:26	1
Arsenic	20	U	20		ug/L		00/00/14 10:10	00/10/14 10.20	

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	8.6		0.25		mg/L			06/05/14 15:59	5
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:49	1

10

40

20

ug/L

ug/L

ug/L

06/06/14 10:16

06/06/14 10:16

06/06/14 10:16

06/10/14 16:26

06/10/14 16:26

06/10/14 16:26

10 U

40 U

20 U

3

6

9

10

4.0

Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-29D_06032014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101934-8

Matrix: Water

Date Collected: 06/03/14 16:10 Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 22:23	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 22:23	1
Toluene	1.0	U	1.0		ug/L			06/09/14 22:23	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 22:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130			-		06/09/14 22:23	1
Dibromofluoromethane	95		70 - 130					06/09/14 22:23	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 22:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Acenaphthylene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Chrysene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Fluorene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Naphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Phenanthrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		38 - 130				06/10/14 15:11	06/12/14 16:58	1
Nitrobenzene-d5 (Surr)	69		39 - 130				06/10/14 15:11	06/12/14 16:58	1
Terphenyl-d14 (Surr)	65		10 - 143				06/10/14 15:11	06/12/14 16:58	1

Terphenyl-d14 (Surr)	65		10 - 143				06/10/14 15:11	06/12/14 16:58	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:30	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:30	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:30	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:30	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:30	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	11		0.50		mg/L			06/05/14 16:09	10
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:50	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-30R_06032014 Lab Sample ID: 680-101934-9

Date Collected: 06/03/14 16:40 Matrix: Water Date Received: 06/04/14 08:44

Method: 8260B - Volatile Org	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 22:46	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 22:46	1
Toluene	1.0	U	1.0		ug/L			06/09/14 22:46	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 22:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		70 - 130			-		06/09/14 22:46	1
Dibromofluoromethane	95		70 - 130					06/09/14 22:46	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 22:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Acenaphthylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Chrysene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Fluorene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
1-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
2-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Naphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Phenanthrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 17:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		38 - 130				06/10/14 15:11	06/12/14 17:22	1
Nitrobenzene-d5 (Surr)	68		39 - 130				06/10/14 15:11	06/12/14 17:22	1
Terphenyl-d14 (Surr)	67		10 - 143				06/10/14 15:11	06/12/14 17:22	1

resplienty-u 14 (Sull)	07		10 - 143				00/10/14 10:11	00/12/14 11.22	,
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:35	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:35	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:35	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:35	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:35	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.6		0.050		mg/L			06/05/14 15:21	1
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:51	1

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: DUP-01_06032014 Lab Sample ID: 680-101934-10

Date Collected: 06/03/14 00:00 Matrix: Water

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL Un	nit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	ug	g/L			06/09/14 23:09	1
Ethylbenzene	1.0	U	1.0	ug	g/L			06/09/14 23:09	1
Toluene	1.0	U	1.0	ug	g/L			06/09/14 23:09	1
Xylenes, Total	2.0	U	2.0	ug	g/L			06/09/14 23:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		70 - 130			-		06/09/14 23:09	1
Dibromofluoromethane	96		70 - 130					06/09/14 23:09	1
Toluene-d8 (Surr)	102		70 - 130					06/09/14 23:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Acenaphthylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Chrysene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Fluorene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Naphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Phenanthrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 17:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		38 - 130				06/10/14 15:11	06/12/14 17:45	1
Nitrobenzene-d5 (Surr)	68		39 - 130				06/10/14 15:11	06/12/14 17:45	1
Terphenyl-d14 (Surr)	51		10 - 143				06/10/14 15:11	06/12/14 17:45	1

Terpnenyi-a14 (Surr)	51		10 - 143				06/10/14 15:11	06/12/14 17:45	7
Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U			ug/L		06/06/14 10:16	06/10/14 16:39	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:39	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:39	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:39	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:39	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	18	·	0.50	·	mg/L			06/05/14 16:09	10
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:52	1

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: DUP-02_06032014 Lab Sample ID: 680-101934-11

Date Collected: 06/03/14 00:00 Matrix: Water

Date Received: 06/04/14 08:44

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	ug/L			06/09/14 23:33	1
Ethylbenzene	1.0	U	1.0	ug/L			06/09/14 23:33	1
Toluene	1.0	U	1.0	ug/L			06/09/14 23:33	1
Xylenes, Total	2.0	U	2.0	ug/L			06/09/14 23:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		70 - 130				06/09/14 23:33	1
Dibromofluoromethane	95		70 - 130				06/09/14 23:33	1
Toluene-d8 (Surr)	102		70 - 130				06/09/14 23:33	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac	
2-Fluorobiphenyl	38		38 - 130	06/10/14 15:11	06/12/14 18:09	1	
Nitrobenzene-d5 (Surr)	33	X	39 - 130	06/10/14 15:11	06/12/14 18:09	1	
Terphenyl-d14 (Surr)	63		10 - 143	06/10/14 15:11	06/12/14 18:09	1	

	Method: 6010C - Metals (ICP)									
1	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7	Arsenic	28		20		ug/L		06/06/14 10:16	06/10/14 16:43	1
(Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:43	1
ı	Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 16:43	1
ı	Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 16:43	1
2	Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 16:43	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	63		2.5		mg/L			06/05/14 16:12	50
Nitrate as N	0.050	U	0.050		mg/L			06/04/14 15:53	1

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Client Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Client Sample ID: TRIPBLANK_06032014

Date Collected: 06/03/14 00:00 Date Received: 06/04/14 08:44 Lab Sample ID: 680-101934-12

Matrix: Water

Method: 8260B - Volatile Or	ganic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 16:58	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 16:58	1
Toluene	1.0	U	1.0		ug/L			06/09/14 16:58	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130			-		06/09/14 16:58	1
Dibromofluoromethane	94		70 - 130					06/09/14 16:58	1
Toluene-d8 (Surr)	100		70 - 130					06/09/14 16:58	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333167/8

Matrix: Water

Analysis Batch: 333167

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/09/14 16:23	1
Ethylbenzene	1.0	U	1.0		ug/L			06/09/14 16:23	1
Toluene	1.0	U	1.0		ug/L			06/09/14 16:23	1
Xylenes, Total	2.0	U	2.0		ug/L			06/09/14 16:23	1

MB MB Limits Surrogate %Recovery Qualifier Prepared Analyzed Dil Fac 70 - 130 4-Bromofluorobenzene 93 06/09/14 16:23 Dibromofluoromethane 93 70 - 130 06/09/14 16:23 Toluene-d8 (Surr) 70 - 130 06/09/14 16:23 101

Lab Sample ID: LCS 680-333167/4

Matrix: Water

Analysis Batch: 333167

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
Benzene	50.0	50.4		ug/L		101	74 - 123	
Ethylbenzene	50.0	48.5		ug/L		97	78 - 125	
Toluene	50.0	48.0		ug/L		96	77 - 125	
Xylenes, Total	150	147		ug/L		98	80 - 124	

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 99 70 - 130 Dibromofluoromethane 111 70 - 130 Toluene-d8 (Surr) 98 70 - 130

Lab Sample ID: LCSD 680-333167/5

Matrix: Water

Analysis Batch: 333167

Client Sample ID: Lab	Control Sample Dup
	Prep Type: Total/NA

-	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	50.0	52.4		ug/L		105	74 - 123	4	30	
Ethylbenzene	50.0	48.5		ug/L		97	78 - 125	0	30	
Toluene	50.0	50.3		ug/L		101	77 - 125	5	30	
Yulanas Total	150	1/16		ua/l		97	80 124	1	30	

	LCSD LC	CSD	
Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene	97		70 - 130
Dibromofluoromethane	104		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333327/21-A

Matrix: Water

Analysis Batch: 333622

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 333327

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Acenaphthylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[a]anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[a]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Chrysene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Fluorene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
1-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
2-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Naphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Phenanthrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		38 - 130	06/10/14 15:11	06/11/14 21:30	1
Nitrobenzene-d5 (Surr)	83		39 - 130	06/10/14 15:11	06/11/14 21:30	1
Terphenyl-d14 (Surr)	84		10 - 143	06/10/14 15:11	06/11/14 21:30	1

Lab Sample ID: LCS 680-333327/22-A

Matrix: Water

Analysis Batch: 333622

Client	Sample	D:	Lab (Control	Sample
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Prep Type: Total/NA Prep Batch: 333327

Analysis Batch: 333622							Prep Batt	:n: 333321
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	100	65.8		ug/L		66	41 - 99	
Acenaphthylene	100	62.6		ug/L		63	32 _ 118	
Anthracene	100	74.8		ug/L		75	50 - 103	
Benzo[a]anthracene	100	72.7		ug/L		73	53 _ 109	
Benzo[a]pyrene	100	68.6		ug/L		69	38 _ 111	
Benzo[b]fluoranthene	100	71.4		ug/L		71	53 _ 108	
Benzo[g,h,i]perylene	100	66.5		ug/L		67	42 _ 114	
Benzo[k]fluoranthene	100	67.9		ug/L		68	49 - 108	
Chrysene	100	70.2		ug/L		70	54 _ 111	
Dibenz(a,h)anthracene	100	68.1		ug/L		68	48 - 110	
Fluoranthene	100	72.0		ug/L		72	48 _ 111	
Fluorene	100	74.8		ug/L		75	50 _ 105	
Indeno[1,2,3-cd]pyrene	100	62.7		ug/L		63	34 _ 115	
1-Methylnaphthalene	100	54.6		ug/L		55	50 _ 130	
2-Methylnaphthalene	100	51.8		ug/L		52	32 - 92	
Naphthalene	100	52.3		ug/L		52	29 _ 91	
Phenanthrene	100	74.5		ug/L		75	52 - 108	
Pyrene	100	71.9		ug/L		72	50 - 111	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-333327/22-A

Matrix: Water

Analysis Batch: 333622

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 333327

LCS LCS

Surrogate	%Recovery Qualif	ier Limits
2-Fluorobiphenyl	71	38 - 130
Nitrobenzene-d5 (Surr)	70	39 - 130
Terphenyl-d14 (Surr)	80	10 - 143

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 333599

Lab Sample ID: MB 680-333599/2-A

Matrix: Water

Analysis Batch: 333830

_	МВ	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Acenaphthylene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Anthracene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Benzo[a]anthracene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Benzo[a]pyrene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Chrysene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Fluoranthene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Fluorene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
1-Methylnaphthalene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
2-Methylnaphthalene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Naphthalene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Phenanthrene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1
Pyrene	10	U	10		ug/L		06/11/14 16:18	06/12/14 18:42	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		38 - 130	06/11/14 16:18	06/12/14 18:42	1
Nitrobenzene-d5 (Surr)	81		39 - 130	06/11/14 16:18	06/12/14 18:42	1
Terphenyl-d14 (Surr)	91		10 - 143	06/11/14 16:18	06/12/14 18:42	1

Lab Sample ID: LCS 680-333599/3-A

Matrix: Water

Analysis Batch: 333830

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 333599

,	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	100	68.6		ug/L		69	41 - 99	
Acenaphthylene	100	68.5		ug/L		69	32 - 118	
Anthracene	100	74.3		ug/L		74	50 - 103	
Benzo[a]anthracene	100	79.1		ug/L		79	53 - 109	
Benzo[a]pyrene	100	71.6		ug/L		72	38 - 111	
Benzo[b]fluoranthene	100	71.0		ug/L		71	53 - 108	
Benzo[g,h,i]perylene	100	69.8		ug/L		70	42 - 114	
Benzo[k]fluoranthene	100	77.8		ug/L		78	49 - 108	
Chrysene	100	77.4		ug/L		77	54 - 111	
Dibenz(a.h)anthracene	100	72.9		ua/L		73	48 - 110	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-333599/3-A

Matrix: Water

Analysis Batch: 333830

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 333599

•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoranthene	100	75.0		ug/L		75	48 - 111	
Fluorene	100	78.3		ug/L		78	50 _ 105	
Indeno[1,2,3-cd]pyrene	100	66.8		ug/L		67	34 _ 115	
1-Methylnaphthalene	100	64.2		ug/L		64	50 - 130	
2-Methylnaphthalene	100	62.6		ug/L		63	32 - 92	
Naphthalene	100	56.4		ug/L		56	29 - 91	
Phenanthrene	100	74.9		ug/L		75	52 _ 108	
Pyrene	100	78.2		ug/L		78	50 _ 111	

LCS LCS

MB MB

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	67		38 - 130
Nitrobenzene-d5 (Surr)	70		39 - 130
Terphenyl-d14 (Surr)	82		10 - 143

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-332730/1-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 332730

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:26	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:26	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:26	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 15:26	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:26	1

Lab Sample ID: LCS 680-332730/2-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 332730

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	99.5		ug/L		99	75 - 125	
Chromium	100	99.4		ug/L		99	75 - 125	
Lead	50.0	49.8		ug/L		100	75 - 125	
Nickel	100	98.1		ug/L		98	75 - 125	
Zinc	100	98.2		ug/L		98	75 ₋ 125	

Lab Sample ID: 680-101934-1 MS

Matrix: Water

Analysis Batch: 333550

Client Sample ID: ERB-01_06032014

Prep Type: Total/NA

Prep Batch: 332730

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	95.6		ug/L		96	75 - 125	
Chromium	10	U	100	96.7		ug/L		97	75 - 125	
Lead	10	U	50.0	49.0		ug/L		98	75 - 125	
Nickel	40	U	100	96.0		ug/L		96	75 - 125	
Zinc	20	U	100	89.8		ug/L		90	75 - 125	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-101934-1 M Matrix: Water Analysis Batch: 333550	SD						Clie	nt Samp		-01_060 ype: Tot Batch: 3	tal/NA
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	20	U	100	96.8		ug/L		97	75 - 125	1	20
Chromium	10	U	100	98.0		ug/L		98	75 - 125	1	20
Lead	10	U	50.0	49.1		ug/L		98	75 - 125	0	20
Nickel	40	U	100	97.6		ug/L		98	75 - 125	2	20
Zinc	20	U	100	97.3		ug/L		97	75 - 125	8	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-332667/2 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 332667

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.050		mg/L			06/05/14 15:12	1

Lab Sample ID: LCS 680-332667/20 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 332667

	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	
Ammonia	1.00	1.01		mg/L	101	90 - 110	 _

Lab Sample ID: 680-101934-1 MS Client Sample ID: ERB-01_06032014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 332667

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	0.11		1.00	1.28	F1	ma/L		117	90 - 110	

Lab Sample ID: 680-101934-1 MSD Client Sample ID: ERB-01_06032014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 332667

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia	0.11		1.00	1.32	F1	mg/L		121	90 - 110	3	30

Lab Sample ID: 680-101934-3 DU Client Sample ID: ERB-02-06032014

Matrix: Water

Analysis Batch: 332667

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit I	D	RPD	Limit
Ammonia	0.10		0.0983		mg/L		 3	30

Lab Sample ID: MB 680-333058/2 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 333058

MB MB Result Qualifier Analyte MDL Unit Prepared Analyzed Dil Fac 0.050 Ammonia 0.050 U mg/L 06/06/14 11:56

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Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: DUP-02_06032014

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-333058/12

Matrix: Water

Analysis Batch: 333058

Spike LCS LCS %Rec. Added Analyte Result Qualifier Limits Unit D %Rec 1.00 104 90 - 110 Ammonia 1.04 mg/L

Lab Sample ID: LCSD 680-333058/17

Matrix: Water

Analysis Batch: 333058

LCSD LCSD %Rec. RPD Spike Analyte Added Limit Result Qualifier Unit %Rec Limits RPD Ammonia 1.00 1.04 mg/L 104 90 - 110 30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-332350/13

Matrix: Water

Analysis Batch: 332350

MR MR

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 06/04/14 15:32 mg/L

Lab Sample ID: 680-101934-11 DU

Matrix: Water

Analysis Batch: 332350

DU DU RPD Sample Sample Result Qualifier Result Qualifier RPD Limit Analyte Unit Nitrate as N 0.050 U 0.050 U NC 30 mg/L

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 333167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-1	ERB-01_06032014	Total/NA	Water	8260B	_
680-101934-2	FB-01_06032014	Total/NA	Water	8260B	
680-101934-3	ERB-02-06032014	Total/NA	Water	8260B	
680-101934-4	TMW-4R_06032014	Total/NA	Water	8260B	
680-101934-5	MW-01_06032014	Total/NA	Water	8260B	
680-101934-6	PDMW-8R_06032014	Total/NA	Water	8260B	
680-101934-7	PDMW-45R_06032014	Total/NA	Water	8260B	
680-101934-8	PDMW-29D_06032014	Total/NA	Water	8260B	
680-101934-9	PDMW-30R_06032014	Total/NA	Water	8260B	
680-101934-10	DUP-01_06032014	Total/NA	Water	8260B	
680-101934-11	DUP-02_06032014	Total/NA	Water	8260B	
680-101934-12	TRIPBLANK_06032014	Total/NA	Water	8260B	
LCS 680-333167/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-333167/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-333167/8	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 333327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-1	ERB-01_06032014	Total/NA	Water	3520C	
680-101934-2	FB-01_06032014	Total/NA	Water	3520C	
680-101934-3	ERB-02-06032014	Total/NA	Water	3520C	
680-101934-4	TMW-4R_06032014	Total/NA	Water	3520C	
680-101934-5	MW-01_06032014	Total/NA	Water	3520C	
680-101934-6	PDMW-8R_06032014	Total/NA	Water	3520C	
680-101934-7	PDMW-45R_06032014	Total/NA	Water	3520C	
680-101934-8	PDMW-29D_06032014	Total/NA	Water	3520C	
680-101934-9	PDMW-30R_06032014	Total/NA	Water	3520C	
680-101934-10	DUP-01_06032014	Total/NA	Water	3520C	
680-101934-11	DUP-02_06032014	Total/NA	Water	3520C	
LCS 680-333327/22-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-333327/21-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 333599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-7 - F	PDMW-45R_06032014	Total/NA	Water	3520C	
LCS 680-333599	/3-A Lab Control Sample	Total/NA	Water	3520C	
MB 680-333599/	2-A Method Blank	Total/NA	Water	3520C	

Analysis Batch: 333622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-333327/22-A	Lab Control Sample	Total/NA	Water	8270D	333327
MB 680-333327/21-A	Method Blank	Total/NA	Water	8270D	333327

Analysis Batch: 333830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-7 - RE	PDMW-45R_06032014	Total/NA	Water	8270D	333599
LCS 680-333599/3-A	Lab Control Sample	Total/NA	Water	8270D	333599
MB 680-333599/2-A	Method Blank	Total/NA	Water	8270D	333599

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS Semi VOA (Continued)

Analysis Batch: 333838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-1	ERB-01_06032014	Total/NA	Water	8270D	333327
680-101934-2	FB-01_06032014	Total/NA	Water	8270D	333327
680-101934-3	ERB-02-06032014	Total/NA	Water	8270D	333327
680-101934-4	TMW-4R_06032014	Total/NA	Water	8270D	333327
680-101934-5	MW-01_06032014	Total/NA	Water	8270D	333327
680-101934-6	PDMW-8R_06032014	Total/NA	Water	8270D	333327
680-101934-7	PDMW-45R_06032014	Total/NA	Water	8270D	333327
680-101934-8	PDMW-29D_06032014	Total/NA	Water	8270D	333327
680-101934-9	PDMW-30R_06032014	Total/NA	Water	8270D	333327
680-101934-10	DUP-01_06032014	Total/NA	Water	8270D	333327
680-101934-11	DUP-02_06032014	Total/NA	Water	8270D	333327

Metals

Prep Batch: 332730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-101934-1	ERB-01_06032014	Total/NA	Water	3010A	
680-101934-1 MS	ERB-01_06032014	Total/NA	Water	3010A	
680-101934-1 MSD	ERB-01_06032014	Total/NA	Water	3010A	
680-101934-2	FB-01_06032014	Total/NA	Water	3010A	
680-101934-3	ERB-02-06032014	Total/NA	Water	3010A	
680-101934-4	TMW-4R_06032014	Total/NA	Water	3010A	
680-101934-5	MW-01_06032014	Total/NA	Water	3010A	
680-101934-6	PDMW-8R_06032014	Total/NA	Water	3010A	
680-101934-7	PDMW-45R_06032014	Total/NA	Water	3010A	
680-101934-8	PDMW-29D_06032014	Total/NA	Water	3010A	
680-101934-9	PDMW-30R_06032014	Total/NA	Water	3010A	
680-101934-10	DUP-01_06032014	Total/NA	Water	3010A	
680-101934-11	DUP-02_06032014	Total/NA	Water	3010A	
LCS 680-332730/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-332730/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 333550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-1	ERB-01_06032014	Total/NA	Water	6010C	332730
680-101934-1 MS	ERB-01_06032014	Total/NA	Water	6010C	332730
680-101934-1 MSD	ERB-01_06032014	Total/NA	Water	6010C	332730
680-101934-2	FB-01_06032014	Total/NA	Water	6010C	332730
680-101934-3	ERB-02-06032014	Total/NA	Water	6010C	332730
680-101934-4	TMW-4R_06032014	Total/NA	Water	6010C	332730
680-101934-5	MW-01_06032014	Total/NA	Water	6010C	332730
680-101934-6	PDMW-8R_06032014	Total/NA	Water	6010C	332730
680-101934-7	PDMW-45R_06032014	Total/NA	Water	6010C	332730
680-101934-8	PDMW-29D_06032014	Total/NA	Water	6010C	332730
680-101934-9	PDMW-30R_06032014	Total/NA	Water	6010C	332730
680-101934-10	DUP-01_06032014	Total/NA	Water	6010C	332730
680-101934-11	DUP-02_06032014	Total/NA	Water	6010C	332730
LCS 680-332730/2-A	Lab Control Sample	Total/NA	Water	6010C	332730
MB 680-332730/1-A	Method Blank	Total/NA	Water	6010C	332730

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6/18/2014

QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

General Chemistry

Analysis Batch: 332350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-1	ERB-01_06032014	Total/NA	Water	353.2	
680-101934-1 MS	ERB-01_06032014	Total/NA	Water	353.2	
680-101934-1 MSD	ERB-01_06032014	Total/NA	Water	353.2	
680-101934-2	FB-01_06032014	Total/NA	Water	353.2	
680-101934-3	ERB-02-06032014	Total/NA	Water	353.2	
680-101934-4	TMW-4R_06032014	Total/NA	Water	353.2	
680-101934-5	MW-01_06032014	Total/NA	Water	353.2	
680-101934-6	PDMW-8R_06032014	Total/NA	Water	353.2	
680-101934-7	PDMW-45R_06032014	Total/NA	Water	353.2	
680-101934-8	PDMW-29D_06032014	Total/NA	Water	353.2	
680-101934-9	PDMW-30R_06032014	Total/NA	Water	353.2	
680-101934-10	DUP-01_06032014	Total/NA	Water	353.2	
680-101934-11	DUP-02_06032014	Total/NA	Water	353.2	
680-101934-11 DU	DUP-02_06032014	Total/NA	Water	353.2	
LCS 680-332350/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-332350/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 332667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
680-101934-1	ERB-01_06032014	Total/NA	Water	350.1	
680-101934-1 MS	ERB-01_06032014	Total/NA	Water	350.1	
680-101934-1 MSD	ERB-01_06032014	Total/NA	Water	350.1	
680-101934-3	ERB-02-06032014	Total/NA	Water	350.1	
680-101934-3 DU	ERB-02-06032014	Total/NA	Water	350.1	
680-101934-4	TMW-4R_06032014	Total/NA	Water	350.1	
680-101934-5	MW-01_06032014	Total/NA	Water	350.1	
680-101934-6	PDMW-8R_06032014	Total/NA	Water	350.1	
680-101934-7	PDMW-45R_06032014	Total/NA	Water	350.1	
680-101934-8	PDMW-29D_06032014	Total/NA	Water	350.1	
680-101934-9	PDMW-30R_06032014	Total/NA	Water	350.1	
680-101934-10	DUP-01_06032014	Total/NA	Water	350.1	
680-101934-11	DUP-02_06032014	Total/NA	Water	350.1	
LCS 680-332667/20	Lab Control Sample	Total/NA	Water	350.1	
MB 680-332667/2	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 333058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101934-2	FB-01_06032014	Total/NA	Water	350.1	
LCS 680-333058/12	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-333058/17	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-333058/2	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: ERB-01_06032014 Lab Sample ID: 680-101934-1

Date Collected: 06/03/14 10:15 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 19:41	MMT	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			251.6 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	251.6 mL	0.5 mL	333838	06/12/14 14:15	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 15:35	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		1	2 mL	2 mL	332667	06/05/14 15:12	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332350	06/04/14 15:36	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: FB-01_06032014 Lab Sample ID: 680-101934-2

Date Collected: 06/03/14 10:45 Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333167	06/09/14 20:04	MMT	TAL SAV
Total/NA	Prep	3520C			256.2 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	256.2 mL	0.5 mL	333838	06/12/14 14:38	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 15:56	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	333058	06/06/14 11:56	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:40	GRX	TAL SAV

Client Sample ID: ERB-02-06032014 Lab Sample ID: 680-101934-3

Date Collected: 06/03/14 10:50 **Matrix: Water** Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 20:27	MMT	TAL SAV
	Instrum	ent ID: CMSAD								
Total/NA	Prep	3520C			252.3 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	252.3 mL	0.5 mL	333838	06/12/14 15:02	LEG	TAL SAV
	Instrum	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV

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Matrix: Water

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: ERB-02-06032014 Lab Sample ID: 680-101934-3

Date Collected: 06/03/14 10:50 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 16:01	BCB	TAL SAV
	Instrumer	nt ID: ICPE								
Total/NA	Analysis Instrumer	350.1 nt ID: KONELAB1		1	2 mL	2 mL	332667	06/05/14 15:21	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:41	GRX	TAL SAV

Client Sample ID: TMW-4R_06032014 Lab Sample ID: 680-101934-4

Date Collected: 06/03/14 12:30 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333167	06/09/14 20:50	MMT	TAL SAV
Total/NA	Prep	3520C			252.4 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	252.4 mL	0.5 mL	333838	06/12/14 15:25	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 16:05	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		5	2 mL	2 mL	332667	06/05/14 15:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:43	GRX	TAL SAV

Client Sample ID: MW-01_06032014 Lab Sample ID: 680-101934-5

Date Collected: 06/03/14 12:45 Matrix: Water Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333167	06/09/14 21:13	MMT	TAL SAV
Total/NA	Prep	3520C			262.6 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	262.6 mL	0.5 mL	333838	06/12/14 15:48	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 16:18	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		20	2 mL	2 mL	332667	06/05/14 16:09	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:46	GRX	TAL SAV

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-8R_06032014

Date Collected: 06/03/14 14:05 Date Received: 06/04/14 08:44 Lab Sample ID: 680-101934-6

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 21:37	MMT	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			251.4 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	251.4 mL	0.5 mL	333838	06/12/14 16:12	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 16:22	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		50	2 mL	2 mL	332667	06/05/14 16:09	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332350	06/04/14 15:47	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-45R_06032014

Date Collected: 06/03/14 14:20 Date Received: 06/04/14 08:44 Lab Sample ID: 680-101934-7

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 22:00	MMT	TAL SA\
	Instrum	ent ID: CMSAD								
Total/NA	Prep	3520C	RE		266.1 mL	0.5 mL	333599	06/11/14 16:18	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	266.1 mL	0.5 mL	333830	06/12/14 19:55	LEG	TAL SA\
	Instrum	ent ID: CMSE								
Total/NA	Prep	3520C			253.7 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	253.7 mL	0.5 mL	333838	06/12/14 16:35	LEG	TAL SAV
	Instrum	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 16:26	BCB	TAL SAV
	Instrum	ent ID: ICPE								
Total/NA	Analysis	350.1		5	2 mL	2 mL	332667	06/05/14 15:59	JME	TAL SAV
	Instrum	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332350	06/04/14 15:49	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Client Sample ID: PDMW-29D_06032014

Date Collected: 06/03/14 16:10

Date Received: 06/04/14 08:44

Lab Sample ID: 680-101934-8

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 22:23	MMT	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			257.8 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	257.8 mL	0.5 mL	333838	06/12/14 16:58	LEG	TAL SAV
	Instrume	ent ID: CMSN								

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Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-29D_06032014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101934-8

Matrix: Water

Date Collected: 06/03/14 16:10

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 16:30	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	332667	06/05/14 16:09	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:50	GRX	TAL SAV

Client Sample ID: PDMW-30R_06032014 Lab Sample ID: 680-101934-9

Date Collected: 06/03/14 16:40 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 22:46	MMT	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			255.2 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	255.2 mL	0.5 mL	333838	06/12/14 17:22	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 16:35	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		1	2 mL	2 mL	332667	06/05/14 15:21	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332350	06/04/14 15:51	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Lab Sample ID: 680-101934-10 Client Sample ID: DUP-01_06032014

Date Collected: 06/03/14 00:00 **Matrix: Water** Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333167	06/09/14 23:09	MMT	TAL SAV
Total/NA	Prep	3520C			259.5 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	259.5 mL	0.5 mL	333838	06/12/14 17:45	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 16:39	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	332667	06/05/14 16:09	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332350	06/04/14 15:52	GRX	TAL SAV

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Lab Sample ID: 680-101934-11

Lab Sample ID: 680-101934-12

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Client Sample ID: DUP-02_06032014

Date Collected: 06/03/14 00:00 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 23:33	MMT	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			252.5 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	252.5 mL	0.5 mL	333838	06/12/14 18:09	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 16:43	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		50	2 mL	2 mL	332667	06/05/14 16:12	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332350	06/04/14 15:53	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: TRIPBLANK_06032014

Date Collected: 06/03/14 00:00 Matrix: Water

Date Received: 06/04/14 08:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333167	06/09/14 16:58	MMT	TAL SAV
	Instrum	ent ID: CMSAD								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14 *
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14 *
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	803	06-30-14 *
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-14 *
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
lowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	02-28-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14 *
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-14 *
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14 *
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-14 *
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia DEP	State Program	3	94	06-30-14 *
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14 *

TestAmerica Savannah

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101934-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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	L	TestAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P: 912	nah - 5102 LaF Canton - 4101	oche Avenue Shuffel Drive	, Savannah, NW, North		: 912- 1720	-7858 F: 330-497-93	F: 912-352-0165 -9396 F: 330-49	354-7858 F; 912-352-0165 P; 330-497-9396 F; 330-497-0772	SHIPMENT INFORMATION	ORMATION	CANADA CA
		🗂 TestAmerica Tampa - 6712 Benjamin Road, Sulte 100, Tampa, FL 33634 🗂 TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 🛚 F	ı - 6712 Benjan cola - 3355 Mc	in Road, Sul Lemore Drive	te 100, Tamı ı, Pensacola	oa, FL 33634 FL 32514	 P: 813-885-742 P: 850-474-1001 	<u></u>	F: 813-885-70 F: 850-478-2671	5-7049 2671	Shipment Method:	A CONTRACTOR OF THE PROPERTY O	
IKANSPOKIALION		☐ TestAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 F: 716-961 Fig. 1 FestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211	o - 10 Hazelwo jo - 2417 Bond	od Dríve, Sul Street, Univi	ie 106, Amhi ersity Park, I	erst, NY 142 L 60466 P	28 P: 716 : 708-534-6	P: 716-691-2600 8-534-5200 F: 708	F: 716- 08-534-5	F; 716-961-7991 8-534-5211	Shipment Tracking No:	No:	
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Intellinsan	Island			40	3850 EZ211 Rd	Ezel	3	K	000		£-1	9	~033
CSXT Contact: Sam Ross	Ž	1 389 1 S	Z K	0	Nashor Ile, Th	Sip: II Le.	7	3721			S) (8:4-2)	658-1374Fax:	
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	AAAAAAAAAAAA	2 = Nitric Acid	و	6 = Other					oom.ma	₩			
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Level III Level IV Level IV	ed, rolliat.	SW = Surface Water		SOL = Other Solid	er Solid			he. Ion		, eA			g person and de la
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100 CO 10	, Savannah, GA NW, North Cai	te 100, Tampa, , Pensacola, Fl	e 106, Amhers	ONSULTA	ompany:	C	44880C	State Zir	Acid	4 = Sodium Thiosulfate	5 = Sodium Hydroxide 6 = Other)} [, c	ei conc	Filtered T	Y or N C	7	Z							9	7		AND THE PROPERTY OF THE PROPER		TAXABLE INSTITUTE OF THE PARTY
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Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-101934-1

Login Number: 101934 List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Creator: Conner, Neaton		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-101996-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Authorized for release by:

6/20/2014 10:34:56 AM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-101996-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-101996-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

<u>RECEIPT</u>

The samples were received on 6/5/2014 9:04 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.4° C, 2.8° C and 2.8° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples PDMW-07P_06042014 (680-101996-1), PDMW-46_06042014 (680-101996-2), MW-201_06042014 (680-101996-3), PDMW-19P_06042014 (680-101996-4), PDMW-47_06042014 (680-101996-5), PDMW-23R_06042014 (680-101996-6), PDMW-33R2_06042014 (680-101996-7), PDMW-32R_06042014 (680-101996-9), EW-01_06042014 (680-101996-10) and TRIPBLANK_06042014 (680-101996-12) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples PDMW-07P_06042014 (680-101996-1), PDMW-46_06042014 (680-101996-2), MW-201_06042014 (680-101996-3), PDMW-19P_06042014 (680-101996-4), PDMW-47_06042014 (680-101996-5), PDMW-23R_06042014 (680-101996-6), PDMW-33R2_06042014 (680-101996-7), PDMW-32R_06042014 (680-101996-9) and EW-01_06042014 (680-101996-10) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 333838 was outside the method criteria for the following analyte(s): 2,4,6-Tribromophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

METALS (ICP)

Samples PDMW-07P_06042014 (680-101996-1), PDMW-46_06042014 (680-101996-2), MW-201_06042014 (680-101996-3), PDMW-19P_06042014 (680-101996-4), PDMW-47_06042014 (680-101996-5), PDMW-23R_06042014 (680-101996-6), PDMW-33R2_06042014 (680-101996-7), PDMW-32R_06042014 (680-101996-9) and EW-01_06042014 (680-101996-10) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 06/06/2014 and 06/07/2014 and analyzed on 06/10/2014.

Zinc recovery is outside criteria low for the MSD of sample EW-01_06042014 (680-101996-10) in batch 680-333550.

AMMONIA

Samples PDMW-07P_06042014 (680-101996-1), PDMW-46_06042014 (680-101996-2), MW-201_06042014 (680-101996-3), PDMW-19P_06042014 (680-101996-4), PDMW-47_06042014 (680-101996-5), PDMW-23R_06042014 (680-101996-6), PDMW-33R2_06042014 (680-101996-7), PDMW-48_06042014 (680-101996-8), PDMW-32R_06042014 (680-101996-9), EW-01_06042014 (680-101996-10) and PDMW-50_06042014 (680-101996-11) were analyzed for ammonia in accordance with EPA Method 350.1.

Method(s) 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 333396 were outside control limits. Sample

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Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Job ID: 680-101996-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Samples PDMW-07P_06042014 (680-101996-1)[10X], PDMW-46_06042014 (680-101996-2)[2X], MW-201_06042014 (680-101996-3) [10X], PDMW-19P_06042014 (680-101996-4)[5X], PDMW-47_06042014 (680-101996-5)[50X], PDMW-23R_06042014 (680-101996-6) [2X], PDMW-33R2_06042014 (680-101996-7)[10X], PDMW-48_06042014 (680-101996-8)[20X], PDMW-32R_06042014 (680-101996-9) [10X], EW-01_06042014 (680-101996-10)[1000X] and PDMW-50_06042014 (680-101996-11)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-07P_06042014 (680-101996-1), PDMW-46_06042014 (680-101996-2), MW-201_06042014 (680-101996-3), PDMW-19P_06042014 (680-101996-4), PDMW-47_06042014 (680-101996-5), PDMW-23R_06042014 (680-101996-6), PDMW-33R2_06042014 (680-101996-7), PDMW-48_06042014 (680-101996-8), PDMW-32R_06042014 (680-101996-9), EW-01_06042014 (680-101996-10) and PDMW-50_06042014 (680-101996-11) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Metals

Qualifier **Qualifier Description**

Ū Indicates the analyte was analyzed for but not detected.

4 MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not

applicable.

Quality Control

Relative error ratio

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

General Chemistry

Qualifier **Qualifier Description** Ū Indicates the analyte was analyzed for but not detected. F1 MS and/or MSD Recovery exceeds the control limits

Glossary

QC

RER

RL**RPD**

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit

TestAmerica Savannah

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

> Client Sample ID PDMW-07P_06042014

PDMW-46_06042014

PDMW-19P_06042014

PDMW-47_06042014 PDMW-23R_06042014

PDMW-33R2_06042014 PDMW-48_06042014

PDMW-32R_06042014 EW-01_06042014

PDMW-50_06042014

TRIPBLANK_06042014

MW-201_06042014

Lab Sample ID

680-101996-1

680-101996-2 680-101996-3

680-101996-4

680-101996-5

680-101996-6 680-101996-7

680-101996-8 680-101996-9

680-101996-10 680-101996-11

680-101996-12

TestAmerica Job ID: 680-101996-1

06/04/14 16:25

06/04/14 00:00

Matrix	Collected	Received
Water	06/04/14 09:45	06/05/14 09:04
Water	06/04/14 09:30	06/05/14 09:04
Water	06/04/14 10:40	06/05/14 09:04
Water	06/04/14 10:55	06/05/14 09:04
Water	06/04/14 11:45	06/05/14 09:04
Water	06/04/14 12:45	06/05/14 09:04
Water	06/04/14 13:15	06/05/14 09:04
Water	06/04/14 14:35	06/05/14 09:04
Water	06/04/14 15:20	06/05/14 09:04
Water	06/04/14 15:09	06/05/14 09:04

Water

Water

06/05/14 09:04

06/05/14 09:04

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-07P_06042014 Lab Sample ID: 680-101996-1

Date Collected: 06/04/14 09:45 Matrix: Water

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 14:12	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 14:12	1
Toluene	1.0	U	1.0		ug/L			06/11/14 14:12	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 14:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130			-		06/11/14 14:12	1
Dibromofluoromethane	97		70 - 130					06/11/14 14:12	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 14:12	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 18:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		38 - 130				06/10/14 15:11	06/12/14 18:32	1
Nitrobenzene-d5 (Surr)	66		39 - 130				06/10/14 15:11	06/12/14 18:32	1
Ternhenyl-d14 (Surr)	57		10 143				06/10/14 15:11	06/12/14 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		38 - 130	06/10/14 15:11	06/12/14 18:32	1
Nitrobenzene-d5 (Surr)	66		39 - 130	06/10/14 15:11	06/12/14 18:32	1
Terphenyl-d14 (Surr)	57		10 - 143	06/10/14 15:11	06/12/14 18:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 17:26	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 17:26	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 17:26	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 17:26	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 17:26	1

General Chemistry						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	12		0.50		mg/L			06/10/14 11:17	10
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:12	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-46_06042014

Lab Sample ID: 680-101996-2

Matrix: Water

Date Collected: 06/04/14 09:30 Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 14:35	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 14:35	1
Toluene	1.0	U	1.0		ug/L			06/11/14 14:35	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130			-		06/11/14 14:35	1
Dibromofluoromethane	95		70 - 130					06/11/14 14:35	1
Toluene-d8 (Surr)	103		70 - 130					06/11/14 14:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Acenaphthylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Chrysene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Fluorene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Naphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Phenanthrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 18:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		38 - 130				06/10/14 15:11	06/12/14 18:55	1
Nitrobenzene-d5 (Surr)	76		39 - 130				06/10/14 15:11	06/12/14 18:55	1
Terphenyl-d14 (Surr)	60		10 - 143				06/10/14 15:11	06/12/14 18:55	1

Terphenyl-d14 (Surr)	60		10 - 143				06/10/14 15:11	06/12/14 18:55	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 17:34	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 17:34	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 17:34	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 17:34	1
Zinc	400		20		ug/L		06/06/14 10:16	06/10/14 17:34	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.9		0.10		mg/L			06/10/14 09:44	2
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:13	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: MW-201_06042014 Lab Sample ID: 680-101996-3

Date Collected: 06/04/14 10:40 Matrix: Water

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 14:58	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 14:58	1
Toluene	1.0	U	1.0		ug/L			06/11/14 14:58	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		70 - 130			-		06/11/14 14:58	1
Dibromofluoromethane	93		70 - 130					06/11/14 14:58	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 14:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Acenaphthylene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Benzo[a]anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Benzo[a]pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Chrysene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Fluorene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
1-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
2-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Naphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Phenanthrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	45		38 - 130				06/10/14 15:11	06/12/14 19:18	1
Nitrobenzene-d5 (Surr)	52		39 - 130				06/10/14 15:11	06/12/14 19:18	1
Terphenyl-d14 (Surr)	52		10 - 143				06/10/14 15:11	06/12/14 19:18	1

Terphenyl-d14 (Surr)	52		10 - 143				06/10/14 15:11	06/12/14 19:18	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U			ug/L		06/07/14 09:43	06/10/14 18:16	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:16	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:16	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:16	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	15		0.50		mg/L			06/10/14 09:34	10
Nitrate as N	0.070		0.050		mg/L			06/05/14 17:15	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-19P_06042014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101996-4

Matrix: Water

Date Collected: 06/04/14 10:55	

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 15:21	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 15:21	1
Toluene	1.0	U	1.0		ug/L			06/11/14 15:21	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130			-		06/11/14 15:21	1
Dibromofluoromethane	93		70 - 130					06/11/14 15:21	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 15:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Acenaphthylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Chrysene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Fluoranthene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Fluorene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
1-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
2-Methylnaphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Naphthalene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Phenanthrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Pyrene	9.8	U	9.8		ug/L		06/10/14 15:11	06/12/14 19:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		38 - 130	06/10/14 15:11	06/12/14 19:42	1
Nitrobenzene-d5 (Surr)	75		39 _ 130	06/10/14 15:11	06/12/14 19:42	1
Terphenyl-d14 (Surr)	72		10 - 143	06/10/14 15:11	06/12/14 19:42	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:21	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:21	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:21	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:21	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:21	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	5.6		0.25		mg/L			06/10/14 11:17	5
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:18	1

TestAmerica Savannah

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Lab Sample ID: 680-101996-5

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-47_06042014

Date Collected: 06/04/14 11:45 Matrix: Water

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 15:44	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 15:44	1
Toluene	1.0	U	1.0		ug/L			06/11/14 15:44	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 15:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130			_		06/11/14 15:44	1
Dibromofluoromethane	89		70 - 130					06/11/14 15:44	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 15:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Acenaphthylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Chrysene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Fluoranthene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Fluorene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Naphthalene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Phenanthrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Pyrene	9.6	U	9.6		ug/L		06/10/14 15:11	06/12/14 20:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		38 - 130				06/10/14 15:11	06/12/14 20:05	1
Nitrobenzene-d5 (Surr)	56		39 - 130				06/10/14 15:11	06/12/14 20:05	1
Terphenyl-d14 (Surr)	47		10 - 143				06/10/14 15:11	06/12/14 20:05	1

Terphenyl-d14 (Surr)	47		10 - 143				06/10/14 15:11	06/12/14 20:05	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:25	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:25	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:25	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:25	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:25	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	72		2.5		mg/L			06/10/14 09:44	50
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:19	1

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101996-6

Matrix: Water

Client Sample ID: PDMW-23R_06042014	
Date Collected: 06/04/14 12:45	

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 16:08	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 16:08	1
Toluene	1.0	U	1.0		ug/L			06/11/14 16:08	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130					06/11/14 16:08	1
Dibromofluoromethane	93		70 - 130					06/11/14 16:08	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 16:08	1
Method: 8270D - Semivolatile Org	ganic Compou	nds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Acenaphthylene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Benzo[a]anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Benzo[a]pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Chrysene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Fluorene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
1-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
2-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Naphthalene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Phenanthrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Pyrene	10	U	10		ug/L		06/10/14 15:11	06/12/14 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		38 - 130				06/10/14 15:11	06/12/14 20:28	1
Nitrobenzene-d5 (Surr)	70		39 - 130				06/10/14 15:11	06/12/14 20:28	1
Terphenyl-d14 (Surr)	58		10 - 143				06/10/14 15:11	06/12/14 20:28	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:29	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:29	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:29	1

motriou: ou rou motais (ror)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:29	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:29	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:29	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:29	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:29	1

General	l Chemi	stry
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Analyte	Result	Qualifier	RL	MDL	Unit	0)	Prepared	Analyzed	Dil Fac
Ammonia	3.6		0.10		mg/L		_		06/10/14 09:44	2
Nitrate as N	0.11		0.050		mg/L				06/05/14 17:21	1

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101996-7

Matrix: Water

Client Sample ID: PDMW-33R2_0	6042014
Date Collected: 06/04/14 13:15	

Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 16:31	
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 16:31	•
Toluene	1.0	U	1.0		ug/L			06/11/14 16:31	
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 16:31	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	93		70 - 130					06/11/14 16:31	
Dibromofluoromethane	89		70 - 130					06/11/14 16:31	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 16:31	•
Method: 8270D - Semivolati	le Organic Compou	nds (GC/MS	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Acenaphthylene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Chrysene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Fluoranthene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Fluorene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Naphthalene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	
Phenanthrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	•
Pyrene	9.7	U	9.7		ug/L		06/10/14 15:11	06/12/14 20:51	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	64		38 - 130				06/10/14 15:11	06/12/14 20:51	-
Nitrobenzene-d5 (Surr)	71		39 - 130				06/10/14 15:11	06/12/14 20:51	
Terphenyl-d14 (Surr)	54		10 - 143				06/10/14 15:11	06/12/14 20:51	

Method:	6010C - I	Vletals (ICP)
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method. 00100 - metals (101)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:34	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:34	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:34	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:34	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:34	1

General	Chem	istry
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	16		0.50		mg/L			06/10/14 09:34	10
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:22	1

Client Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Client Sample ID: PDMW-48_06042014

Lab Sample ID: 680-101996-8 Date Collected: 06/04/14 14:35

Matrix: Water

Date Received: 06/05/14 09:04

Gen	eral Chemistry								
Analy	re Resu	lt Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Amm	onia 2	7	1.0		mg/L			06/10/14 10:03	20
Nitrate	as N 0.05	0 U	0.050		mg/L			06/05/14 17:23	1

Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-32R_06042014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101996-9

Matrix: Water

Date Collected: 06/04/14 15:20 Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 16:54	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 16:54	1
Toluene	1.0	U	1.0		ug/L			06/11/14 16:54	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 16:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		70 - 130			-		06/11/14 16:54	1
Dibromofluoromethane	92		70 - 130					06/11/14 16:54	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 16:54	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Acenaphthylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Benzo[a]anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Benzo[a]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Chrysene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Dibenz(a,h)anthracene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Fluoranthene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Fluorene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
1-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
2-Methylnaphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Naphthalene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Phenanthrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Pyrene	9.9	U	9.9		ug/L		06/10/14 15:11	06/12/14 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		38 - 130				06/10/14 15:11	06/12/14 21:14	1
Nitrobenzene-d5 (Surr)	66		39 - 130				06/10/14 15:11	06/12/14 21:14	1
Terphenyl-d14 (Surr)	55		10 - 143				06/10/14 15:11	06/12/14 21:14	1

Terphenyl-d14 (Surr)	55		10 - 143				06/10/14 15:11	06/12/14 21:14	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:38	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:38	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:38	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:38	1
Zinc	31		20		ug/L		06/07/14 09:43	06/10/14 18:38	1
— General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia			0.50		mg/L			06/10/14 11:41	10
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:24	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: EW-01_06042014

Lab Sample ID: 680-101996-10

Matrix: Water

Date Collected: 06/04/14 15:09 Date Received: 06/05/14 09:04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 17:17	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 17:17	1
Toluene	1.0	U	1.0		ug/L			06/11/14 17:17	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		70 - 130			_		06/11/14 17:17	1
Dibromofluoromethane	95		70 - 130					06/11/14 17:17	1
Toluene-d8 (Surr)	103		70 - 130					06/11/14 17:17	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Acenaphthylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Benzo[a]anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Benzo[a]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Chrysene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Fluorene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
1-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
2-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Naphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Phenanthrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 23:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		38 - 130				06/10/14 15:11	06/11/14 23:07	1
Nitrobenzene-d5 (Surr)	65		39 - 130				06/10/14 15:11	06/11/14 23:07	1
Terphenyl-d14 (Surr)	52		10 - 143				06/10/14 15:11	06/11/14 23:07	1

Terphenyl-d14 (Surr)	52		10 - 143				06/10/14 15:11	06/11/14 23:07	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:42	1
Chromium	12		10		ug/L		06/07/14 09:43	06/10/14 18:42	1
Lead	10		10		ug/L		06/07/14 09:43	06/10/14 18:42	1
Nickel	100		40		ug/L		06/07/14 09:43	06/10/14 18:42	1
Zinc	550		20		ug/L		06/07/14 09:43	06/10/14 18:42	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1100		50		mg/L			06/10/14 11:41	1000
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:08	1

TestAmerica Savannah

6/20/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Client Sample ID: PDMW-50_06042014

Lab Sample ID: 680-101996-11

Matrix: Water

Date Collected: 06/04/14 16:25 Date Received: 06/05/14 09:04

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.8		0.25		mg/L			06/10/14 09:54	5
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:25	1

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11

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Client Sample ID: TRIPBLANK_06042014

Date Collected: 06/04/14 00:00 Date Received: 06/05/14 09:04 Lab Sample ID: 680-101996-12

Matrix: Water

Method: 8260B - Volatile Or	ganic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 13:02	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 13:02	1
Toluene	1.0	U	1.0		ug/L			06/11/14 13:02	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		70 - 130			-		06/11/14 13:02	1
Dibromofluoromethane	98		70 - 130					06/11/14 13:02	1
Toluene-d8 (Surr)	103		70 - 130					06/11/14 13:02	1

8

9

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333526/8

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв Result Qualifier RL Analyte MDL Unit D Prepared Analyzed Dil Fac Benzene 1.0 U 1.0 ug/L 06/11/14 11:42 Ethylbenzene 1.0 U 1.0 ug/L 06/11/14 11:42 06/11/14 11:42 Toluene 1.0 U 1.0 ug/L 06/11/14 11:42 Xylenes, Total 2.0 U 2.0 ug/L

MB MB Qualifier Surrogate %Recovery Limits Dil Fac Prepared Analyzed 4-Bromofluorobenzene 96 70 - 130 06/11/14 11:42 70 - 130 Dibromofluoromethane 101 06/11/14 11:42 Toluene-d8 (Surr) 70 - 130 06/11/14 11:42 104

Lab Sample ID: LCS 680-333526/4

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte babbA Result Qualifier %Rec Limits Unit D Benzene 50.0 51.3 ug/L 103 74 - 123 Ethylbenzene 50.0 49.2 98 78 - 125 ug/L Toluene 50.0 50.9 ug/L 102 77 - 125 150 145 ug/L 80 - 124 Xylenes, Total 96

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 96 70 - 130 Dibromofluoromethane 108 70 - 130 Toluene-d8 (Surr) 103 70 - 130

Lab Sample ID: LCSD 680-333526/6

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	50.0	49.1		ug/L		98	74 - 123	4	30	
Ethylbenzene	50.0	46.6		ug/L		93	78 - 125	6	30	
Toluene	50.0	47.0		ug/L		94	77 - 125	8	30	
Xylenes, Total	150	140		ug/L		93	80 - 124	3	30	

	LCSD LCS	SD	
Surrogate	%Recovery Qua	alifier Limits	
4-Bromofluorobenzene	93	70 - 130)
Dibromofluoromethane	106	70 - 130)
Toluene-d8 (Surr)	97	70 - 130)

Lab Sample ID: 680-101996-10 MS

Matrix: Water

Analysis Batch: 333526

Analysis Daton. 000020										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	1.0	U	50.0	49.7		ug/L		99	74 - 123	
Ethylbenzene	1.0	U	50.0	49.7		ua/L		99	78 ₋ 125	

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Prep Type: Total/NA

Client Sample ID: EW-01_06042014

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Client Sample ID: EW-01_06042014

Prep Type: Total/NA

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-101996-10 MS

Matrix: Water

Analysis Batch: 333526

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	1.0	U	50.0	51.0		ug/L		102	77 - 125	
Xylenes, Total	2.0	U	150	144		ug/L		96	80 - 124	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	92		70 - 130
Dibromofluoromethane	95		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: 680-101996-10 MSD

Matrix: Water

Analysis Batch: 333526

Client Sample ID: EW-01_06042014

Prep Type: Total/NA

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	1.0	U	50.0	50.2		ug/L		100	74 - 123	1	30
Ethylbenzene	1.0	U	50.0	51.1		ug/L		102	78 - 125	3	30
Toluene	1.0	U	50.0	50.6		ug/L		101	77 - 125	1	30
Xylenes, Total	2.0	U	150	148		ug/L		98	80 - 124	3	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	95		70 - 130
Dibromofluoromethane	90		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333327/21-A

Matrix: Water

Analysis Batch: 333622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333327

· · · · · · · · · · · · · · · · · · ·									
	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Acenaphthylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[a]anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[a]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Chrysene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Dibenz(a,h)anthracene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Fluoranthene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Fluorene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
1-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
2-Methylnaphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Naphthalene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1
Phenanthrene	10	U	10		ug/L		06/10/14 15:11	06/11/14 21:30	1

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-333327/21-A

Matrix: Water

Analyte

Pyrene

Analysis Batch: 333622

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 333327

Dil Fac Result Qualifier RL MDL Unit Analyzed Prepared 10 U 10 06/10/14 15:11 06/11/14 21:30 ug/L

мв мв

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		38 - 130	06/10/14 15:11	06/11/14 21:30	1
Nitrobenzene-d5 (Surr)	83		39 - 130	06/10/14 15:11	06/11/14 21:30	1
Terphenyl-d14 (Surr)	84		10 - 143	06/10/14 15:11	06/11/14 21:30	1

Lab Sample ID: LCS 680-333327/22-A

Matrix: Water

Analysis Batch: 333622

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 333327

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	100	65.8		ug/L		66	41 - 99
Acenaphthylene	100	62.6		ug/L		63	32 _ 118
Anthracene	100	74.8		ug/L		75	50 _ 103
Benzo[a]anthracene	100	72.7		ug/L		73	53 - 109
Benzo[a]pyrene	100	68.6		ug/L		69	38 _ 111
Benzo[b]fluoranthene	100	71.4		ug/L		71	53 _ 108
Benzo[g,h,i]perylene	100	66.5		ug/L		67	42 _ 114
Benzo[k]fluoranthene	100	67.9		ug/L		68	49 - 108
Chrysene	100	70.2		ug/L		70	54 - 111
Dibenz(a,h)anthracene	100	68.1		ug/L		68	48 - 110
Fluoranthene	100	72.0		ug/L		72	48 - 111
Fluorene	100	74.8		ug/L		75	50 _ 105
Indeno[1,2,3-cd]pyrene	100	62.7		ug/L		63	34 _ 115
1-Methylnaphthalene	100	54.6		ug/L		55	50 - 130
2-Methylnaphthalene	100	51.8		ug/L		52	32 - 92
Naphthalene	100	52.3		ug/L		52	29 - 91
Phenanthrene	100	74.5		ug/L		75	52 ₋ 108
Pyrene	100	71.9		ug/L		72	50 ₋ 111

LCS LCS

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl	71	38 - 130
Nitrobenzene-d5 (Surr)	70	39 - 130
Terphenyl-d14 (Surr)	80	10 - 143

Lab Sample ID: 680-101996-10 MS

Matrix: Water

Analysis Batch: 333622

Client	Sample	ID:	EW-01	_06042014

Prep Type: Total/NA

Prep Batch: 333327

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	10	U	94.6	67.4		ug/L		71	41 - 99	
Acenaphthylene	10	U	94.6	64.6		ug/L		68	32 - 118	
Anthracene	10	U	94.6	72.6		ug/L		77	50 - 103	
Benzo[a]anthracene	10	U	94.6	71.2		ug/L		75	53 - 109	
Benzo[a]pyrene	10	U	94.6	64.1		ug/L		68	38 _ 111	
Benzo[b]fluoranthene	10	U	94.6	68.7		ug/L		73	53 - 108	
Benzo[g,h,i]perylene	10	U	94.6	66.5		ug/L		68	42 - 114	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-101996-10 MS

Lab Sample ID: 680-101996-10 MSD

Matrix: Water

Analysis Batch: 333622

Client Sample ID: EW-01_06042014 **Prep Type: Total/NA**

Prep Batch: 333327

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzo[k]fluoranthene	10	U	94.6	65.6		ug/L		69	49 - 108	
Chrysene	10	U	94.6	70.5		ug/L		74	54 ₋ 111	
Dibenz(a,h)anthracene	10	U	94.6	67.3		ug/L		69	48 - 110	
Fluoranthene	10	U	94.6	71.2		ug/L		75	48 - 111	
Fluorene	10	U	94.6	74.4		ug/L		79	50 _ 105	
Indeno[1,2,3-cd]pyrene	10	U	94.6	64.6		ug/L		66	34 - 115	
1-Methylnaphthalene	10	U	94.6	57.3		ug/L		61	50 _ 130	
2-Methylnaphthalene	10	U	94.6	51.8		ug/L		55	32 - 92	
Naphthalene	10	U	94.6	52.6		ug/L		56	29 - 91	
Phenanthrene	10	U	94.6	73.3		ug/L		77	52 _ 108	
Pyrene	10	U	94.6	70.1		ug/L		74	50 ₋ 111	

MS MS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	68		38 - 130
Nitrobenzene-d5 (Surr)	73		39 - 130
Terphenyl-d14 (Surr)	68		10 - 143

Client Sample ID: EW-01_06042014

Prep Batch: 333327

Matrix: Water Prep Type: Total/NA Analysis Batch: 333622

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene		U	92.1	60.5		ug/L		66	41 - 99	11	50
Acenaphthylene	10	U	92.1	60.9		ug/L		66	32 - 118	6	50
Anthracene	10	U	92.1	64.7		ug/L		70	50 - 103	12	50
Benzo[a]anthracene	10	U	92.1	58.0		ug/L		63	53 - 109	20	50
Benzo[a]pyrene	10	U	92.1	51.8		ug/L		56	38 - 111	21	50
Benzo[b]fluoranthene	10	U	92.1	52.3		ug/L		57	53 - 108	27	50
Benzo[g,h,i]perylene	10	U	92.1	51.1		ug/L		53	42 - 114	26	50
Benzo[k]fluoranthene	10	U	92.1	54.5		ug/L		59	49 - 108	19	50
Chrysene	10	U	92.1	57.6		ug/L		63	54 - 111	20	50
Dibenz(a,h)anthracene	10	U	92.1	51.6		ug/L		54	48 - 110	26	50
Fluoranthene	10	U	92.1	60.9		ug/L		66	48 - 111	16	50
Fluorene	10	U	92.1	68.2		ug/L		74	50 - 105	9	50
Indeno[1,2,3-cd]pyrene	10	U	92.1	51.9		ug/L		54	34 - 115	22	50
1-Methylnaphthalene	10	U	92.1	53.6		ug/L		58	50 - 130	7	50
2-Methylnaphthalene	10	U	92.1	51.5		ug/L		56	32 - 92	1	50
Naphthalene	10	U	92.1	52.4		ug/L		57	29 - 91	0	50
Phenanthrene	10	U	92.1	66.2		ug/L		72	52 - 108	10	50
Pyrene	10	U	92.1	60.5		ug/L		66	50 - 111	15	50

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	59		38 - 130
Nitrobenzene-d5 (Surr)	71		39 - 130
Terphenyl-d14 (Surr)	56		10 - 143

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-332730/1-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 332730

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:26	1
Chromium	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:26	1
Lead	10	U	10		ug/L		06/06/14 10:16	06/10/14 15:26	1
Nickel	40	U	40		ug/L		06/06/14 10:16	06/10/14 15:26	1
Zinc	20	U	20		ug/L		06/06/14 10:16	06/10/14 15:26	1

Client Sample ID: Lab Control Sample

Matrix: Water

Analyte Arsenic Chromium Lead Nickel Zinc

Analysis Batch: 333550

							Prep Bat	ch: 332730
	Spike	LCS	LCS				%Rec.	
	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	100	99.5		ug/L		99	75 - 125	
	100	99.4		ug/L		99	75 - 125	
	50.0	49.8		ug/L		100	75 ₋ 125	
	100	98.1		ug/L		98	75 ₋ 125	
	100	98.2		ug/L		98	75 ₋ 125	

ug/L

Lab Sample ID: MB 680-332912/1-A

Lab Sample ID: LCS 680-332730/2-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 332912

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:08	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:08	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:08	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:08	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:08	1

MD MD

Lab Sample ID: LCS 680-332912/2-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 332912**

•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	101		ug/L		101	75 - 125	
Chromium	100	97.4		ug/L		97	75 - 125	
Lead	50.0	48.9		ug/L		98	75 - 125	
Nickel	100	97.9		ug/L		98	75 - 125	
Zinc	100	96.8		ug/L		97	75 ₋ 125	

Lab Sample ID: 680-101996-10 MS

Matrix: Water

Analysis Batch: 333550

Client Sample ID: EW-01_06042014

Prep Type: Total/NA **Prep Batch: 332912**

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	106		ug/L		97	75 - 125	
Chromium	12		100	98.0		ug/L		86	75 - 125	
Lead	10		50.0	54.3		ug/L		88	75 - 125	
Nickel	100		100	188		ug/L		86	75 - 125	
Zinc	550		100	629	4	ug/L		79	75 - 125	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-101996-10 MSD Client Sample ID: EW-01_06042014 **Matrix: Water** Prep Type: Total/NA **Prep Batch: 332912** Analysis Batch: 333550

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	20	U	100	106		ug/L		98	75 - 125	0	20
Chromium	12		100	98.2		ug/L		86	75 - 125	0	20
Lead	10		50.0	50.6		ug/L		81	75 - 125	7	20
Nickel	100		100	187		ug/L		85	75 - 125	0	20
Zinc	550		100	621	4	ug/L		71	75 - 125	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-333396/5 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333396

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.050		mg/L			06/09/14 18:30	1

Lab Sample ID: LCS 680-333396/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333396

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	 1.00	1.01		mg/L		101	90 - 110	

Lab Sample ID: 680-101996-10 MS Client Sample ID: EW-01_06042014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 333396

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	1100		500	1320	F1	ma/L	_	54	90 - 110	

Lab Sample ID: 680-101996-10 MSD Client Sample ID: EW-01_06042014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 333396

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia	1100		500	1330	F1	mg/L		54	90 - 110	0	30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-332632/13 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 332632

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			06/05/14 17:04	1

QC Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 680-332632/16	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 332632

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.500	0.527		ma/L		105	75 - 125	 _

Lab Sample ID: 680-101996-10 MS Client Sample ID: EW-01_06042014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 332632

-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.050	U	0.500	0.550		mg/L		110	75 - 125	

Client Sample ID: EW-01_06042014 Lab Sample ID: 680-101996-10 MSD **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 332632

		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Į	Nitrate as N	0.050	U	0.500	0.550		mg/L		110	75 - 125	0	30

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 333526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-101996-1	PDMW-07P_06042014	Total/NA	Water	8260B	_
680-101996-2	PDMW-46_06042014	Total/NA	Water	8260B	
680-101996-3	MW-201_06042014	Total/NA	Water	8260B	
680-101996-4	PDMW-19P_06042014	Total/NA	Water	8260B	
680-101996-5	PDMW-47_06042014	Total/NA	Water	8260B	
680-101996-6	PDMW-23R_06042014	Total/NA	Water	8260B	
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	8260B	
680-101996-9	PDMW-32R_06042014	Total/NA	Water	8260B	
680-101996-10	EW-01_06042014	Total/NA	Water	8260B	
680-101996-10 MS	EW-01_06042014	Total/NA	Water	8260B	
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	8260B	
680-101996-12	TRIPBLANK_06042014	Total/NA	Water	8260B	
LCS 680-333526/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-333526/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-333526/8	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 333327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-101996-1	PDMW-07P_06042014	Total/NA	Water	3520C	
680-101996-2	PDMW-46_06042014	Total/NA	Water	3520C	
680-101996-3	MW-201_06042014	Total/NA	Water	3520C	
680-101996-4	PDMW-19P_06042014	Total/NA	Water	3520C	
680-101996-5	PDMW-47_06042014	Total/NA	Water	3520C	
680-101996-6	PDMW-23R_06042014	Total/NA	Water	3520C	
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	3520C	
680-101996-9	PDMW-32R_06042014	Total/NA	Water	3520C	
680-101996-10	EW-01_06042014	Total/NA	Water	3520C	
680-101996-10 MS	EW-01_06042014	Total/NA	Water	3520C	
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	3520C	
LCS 680-333327/22-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-333327/21-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 333622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-10	EW-01_06042014	Total/NA	Water	8270D	333327
680-101996-10 MS	EW-01_06042014	Total/NA	Water	8270D	333327
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	8270D	333327
LCS 680-333327/22-A	Lab Control Sample	Total/NA	Water	8270D	333327
MB 680-333327/21-A	Method Blank	Total/NA	Water	8270D	333327

Analysis Batch: 333838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-1	PDMW-07P_06042014	Total/NA	Water	8270D	333327
680-101996-2	PDMW-46_06042014	Total/NA	Water	8270D	333327
680-101996-3	MW-201_06042014	Total/NA	Water	8270D	333327
680-101996-4	PDMW-19P_06042014	Total/NA	Water	8270D	333327
680-101996-5	PDMW-47_06042014	Total/NA	Water	8270D	333327
680-101996-6	PDMW-23R_06042014	Total/NA	Water	8270D	333327

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS Semi VOA (Continued)

Analysis Batch: 333838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	8270D	333327
680-101996-9	PDMW-32R_06042014	Total/NA	Water	8270D	333327

Metals

Prep Batch: 332730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-1	PDMW-07P_06042014	Total/NA	Water	3010A	
680-101996-2	PDMW-46_06042014	Total/NA	Water	3010A	
LCS 680-332730/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-332730/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 332912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-3	MW-201_06042014	Total/NA	Water	3010A	
680-101996-4	PDMW-19P_06042014	Total/NA	Water	3010A	
680-101996-5	PDMW-47_06042014	Total/NA	Water	3010A	
680-101996-6	PDMW-23R_06042014	Total/NA	Water	3010A	
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	3010A	
680-101996-9	PDMW-32R_06042014	Total/NA	Water	3010A	
680-101996-10	EW-01_06042014	Total/NA	Water	3010A	
680-101996-10 MS	EW-01_06042014	Total/NA	Water	3010A	
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	3010A	
LCS 680-332912/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-332912/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 333550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-101996-1	PDMW-07P_06042014	Total/NA	Water	6010C	332730
680-101996-2	PDMW-46_06042014	Total/NA	Water	6010C	332730
680-101996-3	MW-201_06042014	Total/NA	Water	6010C	33291
680-101996-4	PDMW-19P_06042014	Total/NA	Water	6010C	332912
680-101996-5	PDMW-47_06042014	Total/NA	Water	6010C	332912
680-101996-6	PDMW-23R_06042014	Total/NA	Water	6010C	33291
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	6010C	33291
680-101996-9	PDMW-32R_06042014	Total/NA	Water	6010C	33291
680-101996-10	EW-01_06042014	Total/NA	Water	6010C	33291
680-101996-10 MS	EW-01_06042014	Total/NA	Water	6010C	33291
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	6010C	33291
LCS 680-332730/2-A	Lab Control Sample	Total/NA	Water	6010C	33273
LCS 680-332912/2-A	Lab Control Sample	Total/NA	Water	6010C	33291
MB 680-332730/1-A	Method Blank	Total/NA	Water	6010C	33273
MB 680-332912/1-A	Method Blank	Total/NA	Water	6010C	33291

General Chemistry

Analysis Batch: 332632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-1	PDMW-07P_06042014	Total/NA	Water	353.2	
680-101996-2	PDMW-46_06042014	Total/NA	Water	353.2	

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

General Chemistry (Continued)

Analysis Batch: 332632 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-3	MW-201_06042014	Total/NA	Water	353.2	
680-101996-4	PDMW-19P_06042014	Total/NA	Water	353.2	
680-101996-5	PDMW-47_06042014	Total/NA	Water	353.2	
680-101996-6	PDMW-23R_06042014	Total/NA	Water	353.2	
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	353.2	
680-101996-8	PDMW-48_06042014	Total/NA	Water	353.2	
680-101996-9	PDMW-32R_06042014	Total/NA	Water	353.2	
680-101996-10	EW-01_06042014	Total/NA	Water	353.2	
680-101996-10 MS	EW-01_06042014	Total/NA	Water	353.2	
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	353.2	
680-101996-11	PDMW-50_06042014	Total/NA	Water	353.2	
LCS 680-332632/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-332632/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 333396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-101996-1	PDMW-07P_06042014	Total/NA	Water	350.1	_
680-101996-2	PDMW-46_06042014	Total/NA	Water	350.1	
680-101996-3	MW-201_06042014	Total/NA	Water	350.1	
680-101996-4	PDMW-19P_06042014	Total/NA	Water	350.1	
680-101996-5	PDMW-47_06042014	Total/NA	Water	350.1	
680-101996-6	PDMW-23R_06042014	Total/NA	Water	350.1	
680-101996-7	PDMW-33R2_06042014	Total/NA	Water	350.1	
680-101996-8	PDMW-48_06042014	Total/NA	Water	350.1	
680-101996-9	PDMW-32R_06042014	Total/NA	Water	350.1	
680-101996-10	EW-01_06042014	Total/NA	Water	350.1	
680-101996-10 MS	EW-01_06042014	Total/NA	Water	350.1	
680-101996-10 MSD	EW-01_06042014	Total/NA	Water	350.1	
680-101996-11	PDMW-50_06042014	Total/NA	Water	350.1	
LCS 680-333396/4	Lab Control Sample	Total/NA	Water	350.1	
MB 680-333396/5	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-07P_06042014

Date Collected: 06/04/14 09:45

Date Received: 06/05/14 09:04

Lab Sample ID: 680-101996-1

Matrix: Water

Dil Initial Final Batch Prepared Batch Batch Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 8260B 333526 06/11/14 14:12 CAR TAL SAV Analysis 5 mL 5 mL Instrument ID: CMSAD 252.9 mL Total/NA Prep 3520C 0.5 mL 333327 06/10/14 15:11 RBS TAL SAV Total/NA Analysis 8270D 252.9 mL 0.5 mL 333838 06/12/14 18:32 LEG TAL SAV Instrument ID: CMSN Total/NA 3010A 50 mL 50 mL 332730 06/06/14 10:16 BJB TAL SAV Prep Total/NA 50 mL 333550 06/10/14 17:26 BCB TAL SAV Analysis 6010C 50 mL 1 Instrument ID: ICPE Total/NA Analysis 350.1 333396 JME TAL SAV 10 2 mL 2 mL 06/10/14 11:17 Instrument ID: KONELAB1

2 mL

2 mL

332632

Client Sample ID: PDMW-46_06042014

Analysis

353.2

Instrument ID: LACHAT2

Date Collected: 06/04/14 09:30

Date Received: 06/05/14 09:04

Total/NA

Lab Sample ID: 680-101996-2

06/05/14 17:12

Matrix: Water

TAL SAV

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 14:35	CAR	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			259.2 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	259.2 mL	0.5 mL	333838	06/12/14 18:55	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332730	06/06/14 10:16	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 17:34	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		2	2 mL	2 mL	333396	06/10/14 09:44	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332632	06/05/14 17:13	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: MW-201_06042014

Date Collected: 06/04/14 10:40

Date Received: 06/05/14 09:04

Lab Sample ID: 680-101996-3

Matrix: Water

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 14:58	CAR	TAL SAV
	Instrum	ent ID: CMSAD								
Total/NA	Prep	3520C			249.5 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	249.5 mL	0.5 mL	333838	06/12/14 19:18	LEG	TAL SAV
	Instrum	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: MW-201_06042014

Lab Sample ID: 680-101996-3 Date Collected: 06/04/14 10:40

Matrix: Water

Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 18:16	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	333396	06/10/14 09:34	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332632	06/05/14 17:15	GRX	TAL SAV

Client Sample ID: PDMW-19P_06042014 Lab Sample ID: 680-101996-4

Date Collected: 06/04/14 10:55 Matrix: Water

Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333526	06/11/14 15:21	CAR	TAL SAV
Total/NA	Prep	3520C			254 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	254 mL	0.5 mL	333838	06/12/14 19:42	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 18:21	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		5	2 mL	2 mL	333396	06/10/14 11:17	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332632	06/05/14 17:18	GRX	TAL SAV

Client Sample ID: PDMW-47_06042014 Lab Sample ID: 680-101996-5

Date Collected: 06/04/14 11:45 **Matrix: Water** Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333526	06/11/14 15:44	CAR	TAL SAV
Total/NA	Prep	3520C			260.3 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	260.3 mL	0.5 mL	333838	06/12/14 20:05	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 18:25	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		50	2 mL	2 mL	333396	06/10/14 09:44	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332632	06/05/14 17:19	GRX	TAL SAV

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-101996-6

Matrix: Water

Client Sample ID: PDMW-23R_06042014

Date Collected: 06/04/14 12:45 Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 16:08	CAR	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			245.1 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	245.1 mL	0.5 mL	333838	06/12/14 20:28	LEG	TAL SAV
	Instrume	ent ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 18:29	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		2	2 mL	2 mL	333396	06/10/14 09:44	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332632	06/05/14 17:21	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-33R2_06042014

Lab Sample ID: 680-101996-7 Date Collected: 06/04/14 13:15

Matrix: Water

Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAD		1	5 mL	5 mL	333526	06/11/14 16:31	CAR	TAL SAV
Total/NA	Prep	3520C			258.3 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSN		1	258.3 mL	0.5 mL	333838	06/12/14 20:51	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 18:34	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	333396	06/10/14 09:34	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332632	06/05/14 17:22	GRX	TAL SAV

Client Sample ID: PDMW-48_06042014

Date Collected: 06/04/14 14:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		20	2 mL	2 mL	333396	06/10/14 10:03	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332632	06/05/14 17:23	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Lab Sample ID: 680-101996-8

Matrix: Water

Page 30 of 37

6/20/2014

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-32R_06042014

Date Collected: 06/04/14 15:20 Date Received: 06/05/14 09:04

Lab Sample ID: 680-101996-9

Matrix: Water

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 8260B 5 mL 5 mL 333526 06/11/14 16:54 CAR TAL SAV Instrument ID: CMSAD Total/NA 3520C 253.4 mL 0.5 mL 333327 06/10/14 15:11 RBS TAL SAV Prep Total/NA Analysis 8270D 253.4 mL 0.5 mL 333838 06/12/14 21:14 LEG TAL SAV Instrument ID: CMSN Total/NA Prep 3010A 50 mL 50 mL 332912 06/07/14 09:43 BJB TAL SAV Total/NA 50 mL 333550 всв TAL SAV Analysis 6010C 1 50 mL 06/10/14 18:38 Instrument ID: ICPE Total/NA Analysis 350.1 10 2 mL 2 mL 333396 06/10/14 11:41 **JME** TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 332632 06/05/14 17:24 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: EW-01_06042014

Date Collected: 06/04/14 15:09

Date Received: 06/05/14 09:04

Lab Sample ID: 680-101996-10

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 17:17	CAR	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			248.5 mL	0.5 mL	333327	06/10/14 15:11	RBS	TAL SAV
Total/NA	Analysis	8270D		1	248.5 mL	0.5 mL	333622	06/11/14 23:07	SMC	TAL SAV
	Instrume	ent ID: CMSE								
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 18:42	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		1000	2 mL	2 mL	333396	06/10/14 11:41	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332632	06/05/14 17:08	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-50_06042014

Date Collected: 06/04/14 16:25

Date Received: 06/05/14 09:04

Lab Sample I	ID: 680-101996-11
	Matrix: Water

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	333396	06/10/14 09:54	JME	TAL SAV
	Instrum	ent ID: KONELAI	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	332632	06/05/14 17:25	GRX	TAL SAV
	Instrum	ent ID: LACHAT2	2							

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Client Sample ID: TRIPBLANK_06042014

Lab Sample ID: 680-101996-12 Date Collected: 06/04/14 00:00 Matrix: Water

Date Received: 06/05/14 09:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 13:02	CAR	TAL SAV
	Instrum	ent ID: CMSAD								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

AFCEE DoD ELAP		SAVLAB		
100/150 45005		399.01	02-28-15	
ISO/IEC 17025		399.01	02-28-15	
State Program	4	41450	06-30-14 *	
State Program	6	88-0692	01-31-15	
NELAP	9	3217CA	07-31-14 *	
State Program	8	N/A	12-31-14	
State Program	1	PH-0161	03-31-15	
NELAP	4	E87052	06-30-14 *	
State Program	4	N/A	06-30-14 *	
State Program	4	N/A	06-30-14 *	
State Program	4	803	06-30-14 *	
State Program	9	09-005r	04-16-15	
State Program	9	N/A	06-30-14 *	
NELAP	5	200022	11-30-14	
State Program	5	N/A	06-30-14 *	
State Program	7	353	07-01-15	
State Program	4	90084	12-31-14	
State Program	4	18	02-28-15	
NELAP	6	30690	06-30-14 *	
NELAP	6	LA140023	12-31-14	
State Program	1	GA00006	08-16-14	
State Program	3	250	12-31-14	
State Program	1	M-GA006	06-30-14 *	
State Program	5	9925	06-30-14 *	
State Program	4	N/A	06-30-14 *	
State Program	8	CERT0081	01-01-15	
State Program	7	TestAmerica-Savannah	06-30-14 *	
NELAP	2	GA769	06-30-14 *	
State Program	6	N/A	06-30-14 *	
NELAP	2	10842	03-31-15	
State Program	4	269	12-31-14	
State Program	4	13701	07-31-14 *	
State Program	6	9984	08-31-14	
NELAP	3	68-00474	06-30-15	
State Program	2	GA00006	12-31-14	
State Program	4	98001	06-30-14 *	
State Program	4	TN02961	06-30-14 *	
NELAP	6	T104704185-08-TX	11-30-14	
Federal		SAV 3-04	06-11-17	
NELAP	3	460161	06-14-15	
State Program	10	C805	06-10-15	
State Program	3	94	06-30-14 *	
State Program	3	9950C	12-31-14	
State Program	5	999819810	08-31-14	
	State Program State Program NELAP State Program NELAP State Program	State Program 8 State Program 1 NELAP 4 State Program 4 State Program 4 State Program 9 State Program 9 NELAP 5 State Program 5 State Program 4 State Program 4 NELAP 6 NELAP 6 NELAP 6 State Program 1 State Program 3 State Program 5 State Program 4 State Program 8 State Program 7 NELAP 2 State Program 6 NELAP 2 State Program 4 State Program 4	State Program 8 N/A State Program 1 PH-0161 NELAP 4 E87052 State Program 4 N/A State Program 4 N/A State Program 9 09-005r State Program 9 N/A NELAP 5 200022 State Program 5 N/A State Program 7 353 State Program 4 90084 State Program 4 18 NELAP 6 30690 NELAP 6 LA140023 State Program 1 GA000006 State Program 1 GA000006 State Program 3 250 State Program 5 9925 State Program 4 N/A State Program 5 9925 State Program 7 TestAmerica-Savannah NELAP 2 GA769 State Program <td< td=""></td<>	

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 $[\]ensuremath{^{\star}}$ Certification renewal pending - certification considered valid.

Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-101996-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# 000	SHIPMENT INFORMATION	Shipment Method:	LAD COMIC	Shipment Tracking No:	Project #: 6-4300 -5240	PM: Pat Harrison	pat. hartson @ omec.com	74) 658-1374 Fax		VI VSIS				A CONTRACTOR OF THE CONTRACTOR						Á)	oojsn) of C	nis4C	966	0-101	89		MS/MSD	Comments & Special Analytical Requirements:		1,40.6 280, 280, 1	Custody Seal # LAB Log Number #	CSXT WITH ORIGINAL (
	-354-7858 F: 912-352-0165 P: 330-497-9396 F: 330-497-0772	F: 813-885-7049	550-4/8-26/1			<u>d</u>	00)	9)	0 0	METHODS FOR ANALYSIS	<i>P</i> 2'!	N'	70	<u>ا</u>	51 X	¥ 11 2	12	49]	XXX	XXX	××××	XXX	XXX	XXXX	××××		XXX	CXXXX	55,20 h	,3	·	Custody Intact	UST BE SUBMITTED TO
			350-4/4-1001 P: 71¢ ¢01.96	r. / 16-691-200 08-534-5200 F:	RMATION	EST	2d Ste	1 20	Note ■ M &	Pres.	Code		٦	اره ا	701		Matrix C	Code 4	X X M M	< × ∞9	X X M9	× × の9	× × σ9	CM X	ト × の9	% X X	<u>× ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </u>	SW X X	Date Filme	Date/Time	Date/Time:	LAB USE:	INVOICE M
	Savannah, GA 31404 P.	100, Tampa, FL 33634	Pensacola, FL 32514 P	106, Ammerst, NY 14226 Sity Park, IL 60466 P: 7	CONSULTANT INFORMATION	COMPANY EC E	Address:	City, State, Zip,		Sodium Thiosulfate Pre	= Sodium Hydroxide Co	Joinsi I - CI			r Solid		Filtered Type Ma	_	0 9 N	9 7	8 8 N	N 6 6		N 6 6	9 ク ス	N 6 6	9 9 1	9 2				26	
INFORMATION	StestAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P: 912 TestAmerica North Canton - 4101 Shirffel Drive NW North Canton. OH 44720	U restAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634	TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514	Li restamenta bunano - 10 Hazelwood Drive, Sulle 10o, Animerst, nr. 14220 - 17, 10-931-2000 - 17, 10-931 - 2000 - 2, 10-931 - 2000 - 2, 10-931 - 2000 - 2, 10-931 - 2000 - 2, 10-931 - 2,	of Origin)			8915MR C	3 = Sulfur	4 =	വ വ	110) <u>(</u>		Water SOL = Other Solid		le Collection Fil	Time Sampler Y	0945 PG 1		1840 JJ A	1055 PC	SF	1245 25	1315 P6	1435 SF /	1520 PC	1509 55	Received By:	Received By:	Received By:	Lab Remarks: 680 - 10199	
LABORATORY	TestAmerica Savar	TestAmerica Tamp	TestAmerica Pens	TestAmerica Burra TestAmerica Chica	Proj. State (State of Origin)	Proj. City: Savannah		WWW.1138	Preservative C	0 = No Preservatives	1 = Hydrochloric Acid	Matrix Codes	GW = Groundwater	WW = Waste Water	SW = Surface \		Sample	Date	71 23 9	7 7 9	h1/h/9	h11 h12	111119	刊119	h1]H 9	6414	ナニオラ	િપિષિ	O750	HO:00 /		40,60	1
	ט	5 6	בכר				QV	7 8	13 Days	, sh	Days			ed, Format:			Containers	Number & Type	9	0	ሪ ጉ	Ь	ь	Ь	Ь	B	0	27	Date/Times	Pate/Time://C	1.5	Date/Time/	eles .
		TO VICE OF THE CONTRACT OF THE			RMATION	2418514P	Sam Ross	Hutchinson Islan		Specify # Days	Standard 14 Days	Jan Salas]	EDD Required, Format:		NO		Sample Identification	DAP_06042014	P1024090_	h102h090	41064000-	PMM-47-06042014	h102h090-	Hochogo-E	41064000-	3-06042014	4100 40		188		1	ABORATORY WITH SAME
	257	3 -	TRANSPORTATION	-	CSXT PROJECT INFORMATION	ي	CSXT Project Name:	CSXT Contact:	Turnaround Time:	1 Day Rush	2 Day Rush	Deliverables	CSXT Standard (I evel II)	Level III	Level IV	SAMPLE INFORMATION		Sample Ide	PDMM-07P	41024090 - 94 - MWQ4	MW-201_	hiocho90-991-mwag	th-mwad	PD MW-33R-06042014	PDMW-33R2-06042014	41064090-84-MMG9	PDMM-32R	EW-01,0604	Relinquished Bill	Relinquisted By:	Relinquished By:	Received By Laboyatory:	ORIGINAL - RETURNTO LABORATORY WITH SAMPLES

TAL-6006 (0509) pat, harrison @amec.com LAB USE Comments & Special Analytical Requirements: Lab Carrer 6-4300-5240 LAB Log Number COMMENTS Pat Harrison 1848)(58-137 SHIPMENT INFORMATION INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC Shipment Tracking No: Shipment Method: # OOO Custody Seal # Project #: METHODS FOR ANALYSIS Email: ₽₩ TestAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P: 912-354-7858 F: 912-352-0165
DiestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P: 330-497-9396 F: 330-497-0772 Custody Intact □ TestAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 F: 813-885-7049 □ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001 F: 850-478-2671 □ TestAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 F: 716-961-7991 □ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211 Stc 100 X3T8 3721 Date/Time; LAB USE: Date/Time: **®**ate/Time: d CONSULTANT INFORMATION Note # 四百 3 Adyrigh Coll Pres. Code <u>র</u> Code Matrix LIQ = Liquid City State Zip: 16 Comp or Grab Company Type Lab Remarks: 10199 1 9 4 = Sodium Thiosulfate 5 = Sodium Hydroxide SOL = Other Solid Filtered Sampler Y or N 3 = Sulfuric Acid Z Z SL = Sludge SO = Soil 6 = Other 0 = 0il ST 17 F ENW1138915MR Proj. City: SAVONDAN Received By: Received By: Received By 529 Sample Collection Proj. State (State of Origin) Time Preservative Codes: 0 = No Preservatives 1 = Hydrochloric Acid SW = Surface Water GW = Groundwater WW = Waste Water Matrix Codes: 70,60 2 = Nitric Acid カニカラ ナニ/ト/9 Date Number & Containers Date/Time: Hutchingon Island EDD Required, Format: 3 ત્યુ Date/Time: Date/Time ISI' CHAIN OF Standard 6-13 Days CUSTODY Standard 14 Days
Other ORIGINAL - RETURN TO LABORATORY WITH SAMPLES Specify # Days Other Deliv: TRIPBLANK-06042017 \$DMW-50_06042014 CSXT Project Number: 9415545 San Ross CSXT PROJECT INFORMATION Sample Identification Deliverables: SAMPLE INFORMATION **TRANSPORTATION** Turnaround Time: CSXT Project Name: 1 Day Rush 2 Day Rush 3 Day Rush By Labora Level III Level IV Relinquished By CSXT Contact:

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-101996-1

Login Number: 101996 List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-102049-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Sida Horey

Authorized for release by: 6/20/2014 5:58:22 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

----- LINKS -----

Review your project results through
Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-102049-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-102049-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 6/6/2014 8:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 5.2° C, 5.4° C and 5.8° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), TMW-01_06052014 (680-102049-3), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), PDMW-26T_06052014 (680-102049-6), MW-3R_06052014 (680-102049-7), PDMW-10R_06052014 (680-102049-9), PDMW-13P_06052014 (680-102049-11), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14), SW-01-HIGH_06052014 (680-102049-15) and TRIPBLANK_06052014 (680-102049-16) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Method(s) 8260B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: PDMW-26T_06052014 (680-102049-6), TMW-01_06052014 (680-102049-3).

Sample TMW-01_06052014 (680-102049-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), TMW-01_06052014 (680-102049-3), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), PDMW-26T_06052014 (680-102049-6), MW-3R_06052014 (680-102049-7), PDMW-10R_06052014 (680-102049-9), PDMW-13P_06052014 (680-102049-11), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14) and SW-01-HIGH_06052014 (680-102049-15) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 333829 recovered outside control limits for the following analytes: acenapthylene.

METALS (ICP)

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14) and SW-01-HIGH_06052014 (680-102049-15) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

METALS (ICP)

Samples TMW-01_06052014 (680-102049-3), PDMW-26T_06052014 (680-102049-6), MW-3R_06052014 (680-102049-7), PDMW-10R_06052014 (680-102049-9) and PDMW-13P_06052014 (680-102049-11) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

<u>ALKALINITY</u>

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Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

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Job ID: 680-102049-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14) and SW-01-HIGH_06052014 (680-102049-15) were analyzed for alkalinity in accordance with EPA Method 310.1.

AMMONIA

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), TMW-01_06052014 (680-102049-3), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), PDMW-26T_06052014 (680-102049-6), MW-3R_06052014 (680-102049-7), PDMW-52_06052014 (680-102049-8), PDMW-10R_06052014 (680-102049-9), DUP-03_06052014 (680-102049-10), PDMW-13P_06052014 (680-102049-11), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14) and SW-01-HIGH_06052014 (680-102049-15) were analyzed for ammonia in accordance with EPA Method 350.1.

Samples TMW-01_06052014 (680-102049-3)[2000X], SW-01-LOW_06052014 (680-102049-4)[2X], SW-02-LOW_06052014 (680-102049-5)[2X], PDMW-26T_06052014 (680-102049-6)[500X], MW-3R_06052014 (680-102049-7)[5X], PDMW-52_06052014 (680-102049-8)[10X], PDMW-10R_06052014 (680-102049-9)[10X], DUP-03_06052014 (680-102049-10)[5X] and PDMW-13P_06052014 (680-102049-11)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples SW-04-LOW_06052014 (680-102049-1), SW-03-LOW_06052014 (680-102049-2), TMW-01_06052014 (680-102049-3), SW-01-LOW_06052014 (680-102049-4), SW-02-LOW_06052014 (680-102049-5), PDMW-26T_06052014 (680-102049-6), MW-3R_06052014 (680-102049-7), PDMW-52_06052014 (680-102049-8), PDMW-10R_06052014 (680-102049-9), DUP-03_06052014 (680-102049-10), PDMW-13P_06052014 (680-102049-11), SW-03-HIGH_06052014 (680-102049-12), SW-04-HIGH_06052014 (680-102049-13), SW-02-HIGH_06052014 (680-102049-14) and SW-01-HIGH_06052014 (680-102049-15) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

Sample TMW-01_06052014 (680-102049-3)[250X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Ū Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier **Qualifier Description** U Indicates the analyte was analyzed for but not detected.

RPD of the LCS and LCSD exceeds the control limits

Metals

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision level concentration DLC MDA Minimum detectable activity **EDL Estimated Detection Limit** MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

Quality Control QC RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TFO

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-102049-1	SW-04-LOW_06052014	Water	06/05/14 09:30	06/06/14 08:35
680-102049-2	SW-03-LOW_06052014	Water	06/05/14 09:40	06/06/14 08:35
680-102049-3 TMW-01_06052014		Water	06/05/14 09:55	06/06/14 08:35
680-102049-4	SW-01-LOW_06052014	Water	06/05/14 10:40	06/06/14 08:35
680-102049-5	SW-02-LOW_06052014	Water	06/05/14 10:45	06/06/14 08:35
680-102049-6	PDMW-26T_06052014	Water	06/05/14 11:35	06/06/14 08:35
680-102049-7	MW-3R_06052014	Water	06/05/14 13:25	06/06/14 08:35
680-102049-8	PDMW-52_06052014	Water	06/05/14 12:50	06/06/14 08:35
680-102049-9	PDMW-10R_06052014	Water	06/05/14 13:05	06/06/14 08:35
680-102049-10	DUP-03_06052014	Water	06/05/14 00:00	06/06/14 08:35
680-102049-11	PDMW-13P_06052014	Water	06/05/14 14:50	06/06/14 08:35
680-102049-12	SW-03-HIGH_06052014	Water	06/05/14 14:25	06/06/14 08:35
680-102049-13	SW-04-HIGH_06052014	Water	06/05/14 14:45	06/06/14 08:35
680-102049-14	SW-02-HIGH_06052014	Water	06/05/14 15:15	06/06/14 08:35
680-102049-15	SW-01-HIGH_06052014	Water	06/05/14 15:30	06/06/14 08:35
680-102049-16	TRIPBLANK 06052014	Water	06/05/14 00:00	06/06/14 08:35

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-1

Client Sample ID: SW-04-LOW_06052014

Date Collected: 06/05/14 09:30 Date Received: 06/06/14 08:35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acetone	25	U	25		ug/L			06/13/14 14:31	
Benzene	1.0	U	1.0		ug/L			06/13/14 14:31	
Bromodichloromethane	1.0	U	1.0		ug/L			06/13/14 14:31	
Bromoform	1.0	U	1.0		ug/L			06/13/14 14:31	
Bromomethane	5.0	U	5.0		ug/L			06/13/14 14:31	
2-Butanone	10	U	10		ug/L			06/13/14 14:31	
Carbon disulfide	2.0	U	2.0		ug/L			06/13/14 14:31	
Carbon tetrachloride	1.0	U	1.0		ug/L			06/13/14 14:31	
Chlorobenzene	1.0	U	1.0		ug/L			06/13/14 14:31	
Chloroethane	5.0	U	5.0		ug/L			06/13/14 14:31	
Chloroform	1.0	U	1.0		ug/L			06/13/14 14:31	
Chloromethane	1.0	U	1.0		ug/L			06/13/14 14:31	
cis-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/13/14 14:31	
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/13/14 14:31	
Cyclohexane	1.0	U	1.0		ug/L			06/13/14 14:31	
Dibromochloromethane	1.0	U	1.0		ug/L			06/13/14 14:31	
1,2-Dibromo-3-Chloropropane	1.0	U	1.0		ug/L			06/13/14 14:31	

Bromoform	1.0 U	1.0	ug/L	06/13/14 14:31
Bromomethane	5.0 U	5.0	ug/L	06/13/14 14:31
2-Butanone	10 U	10	ug/L	06/13/14 14:31
Carbon disulfide	2.0 U	2.0	ug/L	06/13/14 14:31
Carbon tetrachloride	1.0 U	1.0	ug/L	06/13/14 14:31
Chlorobenzene	1.0 U	1.0	ug/L	06/13/14 14:31
Chloroethane	5.0 U	5.0	ug/L	06/13/14 14:31
Chloroform	1.0 U	1.0	ug/L	06/13/14 14:31
Chloromethane	1.0 U	1.0	ug/L	06/13/14 14:31
cis-1,2-Dichloroethene	1.0 U	1.0	ug/L	06/13/14 14:31
cis-1,3-Dichloropropene	1.0 U	1.0	ug/L	06/13/14 14:31
Cyclohexane	1.0 U	1.0	ug/L	06/13/14 14:31
Dibromochloromethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,2-Dibromo-3-Chloropropane	1.0 U	1.0	ug/L	06/13/14 14:31
1,2-Dibromoethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,2-Dichlorobenzene	1.0 U	1.0	ug/L	06/13/14 14:31
1,3-Dichlorobenzene	1.0 U	1.0	ug/L	06/13/14 14:31
1,4-Dichlorobenzene	1.0 U	1.0	ug/L	06/13/14 14:31
Dichlorodifluoromethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,1-Dichloroethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,2-Dichloroethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,1-Dichloroethene	1.0 U	1.0	ug/L	06/13/14 14:31
1,2-Dichloropropane	1.0 U	1.0	ug/L	06/13/14 14:31
Ethylbenzene	1.0 U	1.0	ug/L	06/13/14 14:31
2-Hexanone	10 U	10	ug/L	06/13/14 14:31
Isopropylbenzene	1.0 U	1.0	ug/L	06/13/14 14:31
Methyl acetate	1.0 U	1.0	ug/L	06/13/14 14:31
Methylcyclohexane	1.0 U	1.0	ug/L	06/13/14 14:31
Methylene Chloride	5.0 U	5.0	ug/L	06/13/14 14:31
4-Methyl-2-pentanone	10 U	10	ug/L	06/13/14 14:31
Methyl tert-butyl ether	10 U	10	ug/L	06/13/14 14:31
Styrene	1.0 U	1.0	ug/L	06/13/14 14:31
1,1,2,2-Tetrachloroethane	1.0 U	1.0	ug/L	06/13/14 14:31
Tetrachloroethene	1.0 U	1.0	ug/L	06/13/14 14:31
Toluene	1.0 U	1.0	ug/L	06/13/14 14:31
trans-1,2-Dichloroethene	1.0 U	1.0	ug/L	06/13/14 14:31
trans-1,3-Dichloropropene	1.0 U	1.0	ug/L	06/13/14 14:31
1,2,4-Trichlorobenzene	1.0 U	1.0	ug/L	06/13/14 14:31
1,1,1-Trichloroethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,1,2-Trichloroethane	1.0 U	1.0	ug/L	06/13/14 14:31
Trichloroethene	1.0 U	1.0	ug/L	06/13/14 14:31
Trichlorofluoromethane	1.0 U	1.0	ug/L	06/13/14 14:31
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0	ug/L	06/13/14 14:31
Vinyl chloride	1.0 U	1.0	ug/L	06/13/14 14:31
Xylenes, Total	2.0 U	2.0	ug/L	06/13/14 14:31
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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-04-LOW_06052014

Date Collected: 06/05/14 09:30 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130		06/13/14 14:31	1
Dibromofluoromethane	100		70 - 130		06/13/14 14:31	1
Toluene-d8 (Surr)	98		70 - 130		06/13/14 14:31	1

Dibioinionadioinicularic	100		70 - 700					00/10/14 14.01	
Toluene-d8 (Surr)	98		70 - 130					06/13/14 14:31	
Method: 8270D - Semivolatil	e Organic Compou	nds (GC/MS	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Acenaphthylene	10	U *	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Benzo[a]anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Benzo[a]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Benzo[b]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Benzo[g,h,i]perylene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Benzo[k]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Chrysene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Dibenz(a,h)anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	· · · · · · · · ·
Fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Fluorene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
1-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Naphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Phenanthrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	
Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 15:38	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	94		38 - 130				06/12/14 15:41	06/16/14 15:38	
Nitrobenzene-d5 (Surr)	99		39 - 130				06/12/14 15:41	06/16/14 15:38	
Terphenyl-d14 (Surr)	94		10 - 143				06/12/14 15:41	06/16/14 15:38	
Method: 6010C - Metals (ICP	•								
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Arsenic		U	20		ug/L		06/07/14 11:38	06/17/14 18:48	•
Chromium	10		10		ug/L		06/07/14 11:38	06/17/14 18:48	•
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 18:48	
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 18:48	•
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 18:48	•
General Chemistry									
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Ammonia	1.9		0.050		mg/L			06/13/14 16:29	
Nitrate as N	0.28		0.050		mg/L			06/06/14 16:25	•
			D.	DI.	Unit	D	Duamanad	Analyzad	Dil Fa
Analyte	Result	Qualifier	RL	KL	UIIIL	U	Prepared	Analyzed	DII Fa

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-03-LOW_06052014

Date Collected: 06/05/14 09:40 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-2

Matrix: Water

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Acetone	25	U	25		ug/L			06/13/14 14:55	
Benzene	1.0	U	1.0		ug/L			06/13/14 14:55	
Bromodichloromethane	1.0	U	1.0		ug/L			06/13/14 14:55	
Bromoform	1.0	U	1.0		ug/L			06/13/14 14:55	
Bromomethane	5.0	U	5.0		ug/L			06/13/14 14:55	
2-Butanone	10		10		ug/L			06/13/14 14:55	
Carbon disulfide	2.0		2.0		ug/L			06/13/14 14:55	
Carbon tetrachloride	1.0	U	1.0		ug/L			06/13/14 14:55	
Chlorobenzene	1.0		1.0		ug/L			06/13/14 14:55	
Chloroethane	5.0	U	5.0		ug/L			06/13/14 14:55	
Chloroform	1.0	U	1.0		ug/L			06/13/14 14:55	
Chloromethane	1.0	U	1.0		ug/L			06/13/14 14:55	
cis-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/13/14 14:55	
cis-1,3-Dichloropropene	1.0		1.0		ug/L			06/13/14 14:55	
Cyclohexane	1.0		1.0		ug/L			06/13/14 14:55	
Dibromochloromethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2-Dibromo-3-Chloropropane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2-Dibromoethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/13/14 14:55	
Ethylbenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
2-Hexanone	10	U	10		ug/L			06/13/14 14:55	
Isopropylbenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
Methyl acetate	1.0	U	1.0		ug/L			06/13/14 14:55	
Methylcyclohexane	1.0	U	1.0		ug/L			06/13/14 14:55	
Methylene Chloride	5.0	U	5.0		ug/L			06/13/14 14:55	
4-Methyl-2-pentanone	10	U	10		ug/L			06/13/14 14:55	
Methyl tert-butyl ether	10	U	10		ug/L			06/13/14 14:55	
Styrene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
Tetrachloroethene	1.0	U	1.0		ug/L			06/13/14 14:55	
Toluene	1.0	U	1.0		ug/L			06/13/14 14:55	
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			06/13/14 14:55	
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
Trichloroethene	1.0	U	1.0		ug/L			06/13/14 14:55	
Trichlorofluoromethane	1.0	U	1.0		ug/L			06/13/14 14:55	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0		ug/L			06/13/14 14:55	
Vinyl chloride	1.0	U	1.0		ug/L			06/13/14 14:55	
Xylenes, Total	2.0	U	2.0		ug/L			06/13/14 14:55	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-2

ib Sample ib. 000-102049-2

Matrix: Water

Client Sample ID: SW-03-LOW_06052014

Date Collected: 06/05/14 09:40 Date Received: 06/06/14 08:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130		06/13/14 14:55	1
Dibromofluoromethane	98		70 - 130		06/13/14 14:55	1
Toluene-d8 (Surr)	100		70 - 130		06/13/14 14:55	1

Toluene-d8 (Surr)	100		70 - 130					06/13/14 14:55	1
- Method: 8270D - Semivolatile	Organic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Acenaphthylene	9.6	U *	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Anthracene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Chrysene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Fluoranthene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Fluorene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Naphthalene	9.6		9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Phenanthrene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Pyrene	9.6	U	9.6		ug/L		06/12/14 15:41	06/16/14 16:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77	-	38 - 130				06/12/14 15:41	06/16/14 16:03	1
Nitrobenzene-d5 (Surr)	83		39 - 130				06/12/14 15:41	06/16/14 16:03	1
Terphenyl-d14 (Surr)	79		10 - 143				06/12/14 15:41	06/16/14 16:03	1
- Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 18:53	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 18:53	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 18:53	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 18:53	1
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 18:53	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.7		0.050		mg/L	 _		06/13/14 12:39	1
Nitrate as N	0.26		0.050		mg/L			06/06/14 16:26	1
Analyte	Result	Qualifier	RL	RL		D	Prepared	Analyzed	Dil Fac
Alkalinity	160		5.0		mg/L			06/12/14 21:27	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-3

Matrix: Water

Client Sample ID: TMW-01_06052014

Date Collected: 06/05/14 09:55 Date Received: 06/06/14 08:35

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fa
Acetone	50	U	50	ug/L		· · · · · · · · · · · · · · · · · · ·	06/13/14 15:20	
Benzene	81		2.0	ug/L			06/13/14 15:20	
Bromodichloromethane	2.0	U	2.0	ug/L			06/13/14 15:20	
Bromoform	2.0	U	2.0	ug/L			06/13/14 15:20	
Bromomethane	10	U	10	ug/L			06/13/14 15:20	
2-Butanone	20	U	20	ug/L			06/13/14 15:20	
Carbon disulfide	4.0	U	4.0	ug/L			06/13/14 15:20	
Carbon tetrachloride	2.0	U	2.0	ug/L			06/13/14 15:20	
Chlorobenzene	2.0	U	2.0	ug/L			06/13/14 15:20	
Chloroethane	10	U	10	ug/L			06/13/14 15:20	
Chloroform	2.0	U	2.0	ug/L			06/13/14 15:20	
Chloromethane	2.0	U	2.0	ug/L			06/13/14 15:20	
is-1,2-Dichloroethene	2.0	U	2.0	ug/L			06/13/14 15:20	
is-1,3-Dichloropropene	2.0	U	2.0	ug/L			06/13/14 15:20	
yclohexane	6.6		2.0	ug/L			06/13/14 15:20	
ibromochloromethane	2.0	U	2.0	ug/L			06/13/14 15:20	
,2-Dibromo-3-Chloropropane	2.0	U	2.0	ug/L			06/13/14 15:20	
,2-Dibromoethane	2.0	U	2.0	ug/L			06/13/14 15:20	
2-Dichlorobenzene	2.0	U	2.0	ug/L			06/13/14 15:20	
,3-Dichlorobenzene	2.0	U	2.0	ug/L			06/13/14 15:20	
4-Dichlorobenzene	2.0	U	2.0	ug/L			06/13/14 15:20	
ichlorodifluoromethane	2.0	Ü	2.0	ug/L			06/13/14 15:20	
.1-Dichloroethane	2.0	U	2.0	ug/L			06/13/14 15:20	
,2-Dichloroethane	2.0	U	2.0	ug/L			06/13/14 15:20	
,1-Dichloroethene	2.0	U	2.0	ug/L			06/13/14 15:20	
,2-Dichloropropane	2.0	U	2.0	ug/L			06/13/14 15:20	
thylbenzene	2.0	U	2.0	ug/L			06/13/14 15:20	
-Hexanone	20	U	20	ug/L			06/13/14 15:20	
sopropylbenzene	43		2.0	ug/L			06/13/14 15:20	
lethyl acetate	2.0	U	2.0	ug/L			06/13/14 15:20	
lethylcyclohexane	3.2		2.0	ug/L			06/13/14 15:20	
lethylene Chloride		U	10	ug/L			06/13/14 15:20	
-Methyl-2-pentanone	20	U	20	ug/L			06/13/14 15:20	
lethyl tert-butyl ether	20	U	20	ug/L			06/13/14 15:20	
tyrene	2.0	U	2.0	ug/L			06/13/14 15:20	
,1,2,2-Tetrachloroethane	2.0	U	2.0	ug/L			06/13/14 15:20	
etrachloroethene	2.0	U	2.0	ug/L			06/13/14 15:20	
oluene	2.0	U	2.0	ug/L			06/13/14 15:20	
ans-1,2-Dichloroethene	2.0	U	2.0	ug/L			06/13/14 15:20	
ans-1,3-Dichloropropene	2.0	U	2.0	ug/L			06/13/14 15:20	
,2,4-Trichlorobenzene	2.0		2.0	ug/L			06/13/14 15:20	
,1,1-Trichloroethane	2.0		2.0	ug/L			06/13/14 15:20	
,1,2-Trichloroethane	2.0		2.0	ug/L			06/13/14 15:20	
richloroethene	2.0		2.0	ug/L			06/13/14 15:20	
richlorofluoromethane	2.0		2.0	ug/L			06/13/14 15:20	
,1,2-Trichloro-1,2,2-trifluoroethane	2.0		2.0	ug/L			06/13/14 15:20	
/inyl chloride	2.0		2.0	ug/L			06/13/14 15:20	
(ylenes, Total	250		4.0	ug/L			06/13/14 15:20	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: TMW-01_06052014

Date Collected: 06/05/14 09:55 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130					06/13/14 15:20	2
Dibromofluoromethane	91		70 - 130					06/13/14 15:20	2
Toluene-d8 (Surr)	107		70 - 130					06/13/14 15:20	2
Method: 8270D - Semivolatile C Analyte		inds (GC/MS Qualifier	S) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8		9.8	WIDE	ug/L		06/12/14 15:41	06/16/14 16:27	1
Acenaphthylene		U *	9.8		ug/L		06/12/14 15:41	06/16/14 16:27	1
Anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 16:27	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 16:27	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 16:27	1
Danzalhiftuaranthana	0.0	11	0.0		/1		06/10/14 15:41	06/46/44 46:07	4

Acenaphthene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	-
Acenaphthylene	9.8	U *	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Anthracene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Benzo[a]anthracene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Benzo[a]pyrene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Benzo[b]fluoranthene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Benzo[g,h,i]perylene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Benzo[k]fluoranthene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Chrysene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Dibenz(a,h)anthracene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Fluoranthene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Fluorene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Indeno[1,2,3-cd]pyrene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
1-Methylnaphthalene	15		9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
2-Methylnaphthalene	15		9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Naphthalene	39		9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Phenanthrene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•
Pyrene	9.8	U	9.8	ug/L	06/12/14 15:41	06/16/14 16:27	•

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		38 - 130	06/12/14 15:41	06/16/14 16:27	1
Nitrobenzene-d5 (Surr)	105		39 - 130	06/12/14 15:41	06/16/14 16:27	1
Terphenyl-d14 (Surr)	40		10 - 143	06/12/14 15:41	06/16/14 16:27	1

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	95		20		ug/L		06/11/14 11:17	06/12/14 21:03	1
Chromium	17		10		ug/L		06/11/14 11:17	06/12/14 21:03	1
Lead	10	U	10		ug/L		06/11/14 11:17	06/12/14 21:03	1
Nickel	40	U	40		ug/L		06/11/14 11:17	06/12/14 21:03	1
Zinc	72		20		ug/L		06/11/14 11:17	06/12/14 21:03	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2600		100		mg/L			06/13/14 17:23	2000
Nitrate as N	170		13		mg/L			06/06/14 16:32	250

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-01-LOW_06052014

Date Collected: 06/05/14 10:40 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-4

Matrix: Water

Analyte		Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	ug/L			06/13/14 15:44	1
Benzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Bromodichloromethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
Bromoform	1.0	U	1.0	ug/L			06/13/14 15:44	1
Bromomethane	5.0	U	5.0	ug/L			06/13/14 15:44	1
2-Butanone	10	U	10	ug/L			06/13/14 15:44	1
Carbon disulfide	2.0	U	2.0	ug/L			06/13/14 15:44	1
Carbon tetrachloride	1.0	U	1.0	ug/L			06/13/14 15:44	1
Chlorobenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Chloroethane	5.0	U	5.0	ug/L			06/13/14 15:44	1
Chloroform	1.0	U	1.0	ug/L			06/13/14 15:44	1
Chloromethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 15:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Cyclohexane	1.0	U	1.0	ug/L			06/13/14 15:44	1
Dibromochloromethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2-Dibromoethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Dichlorodifluoromethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,1-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			06/13/14 15:44	1
Ethylbenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
2-Hexanone	10	U	10	ug/L			06/13/14 15:44	1
Isopropylbenzene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Methyl acetate	1.0	U	1.0	ug/L			06/13/14 15:44	1
Methylcyclohexane	1.0	U	1.0	ug/L			06/13/14 15:44	1
Methylene Chloride	5.0	U	5.0	ug/L			06/13/14 15:44	1
4-Methyl-2-pentanone	10	U	10	ug/L			06/13/14 15:44	1
Methyl tert-butyl ether	10	U	10	ug/L			06/13/14 15:44	1
Styrene	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			06/13/14 15:44	1
Tetrachloroethene	1.0	U	1.0	ug/L			06/13/14 15:44	1
Toluene	1.0	U	1.0	ug/L			06/13/14 15:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 15:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 15:44	1
1,2,4-Trichlorobenzene	1.0		1.0	ug/L			06/13/14 15:44	1
1,1,1-Trichloroethane	1.0		1.0	ug/L			06/13/14 15:44	1
1,1,2-Trichloroethane	1.0		1.0	ug/L			06/13/14 15:44	1
Trichloroethene	1.0		1.0	ug/L			06/13/14 15:44	
Trichlorofluoromethane	1.0		1.0	ug/L			06/13/14 15:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L			06/13/14 15:44	1
Vinyl chloride	1.0		1.0	ug/L			06/13/14 15:44	1
Xylenes, Total	2.0		2.0	ug/L			06/13/14 15:44	1

Limits

%Recovery Qualifier

10 U

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-01-LOW_06052014

Date Collected: 06/05/14 10:40 Date Received: 06/06/14 08:35

Surrogate

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

1-Methylnaphthalene

2-Methylnaphthalene

Fluoranthene

Naphthalene

Phenanthrene

Fluorene

Lab Sample ID: 680-102049-4

Prepared

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

06/12/14 15:41

Matrix: Water

Analyzed

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

06/16/14 17:16

4-Bromofluorobenzene	99		70 - 130					06/13/14 15:44	1
Dibromofluoromethane	99		70 - 130					06/13/14 15:44	1
Toluene-d8 (Surr)	104		70 - 130					06/13/14 15:44	1
- Method: 8270D - Semivolatile	Organic Compou	ınds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Acenaphthylene	10	U *	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Benzo[a]anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Benzo[a]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Benzo[b]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Benzo[g,h,i]perylene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Benzo[k]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1
Chrysene	10	U	10		ug/L		06/12/14 15:41	06/16/14 17:16	1

10

10

10

10

10

10

10

10

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

	Pyrene	10 U	10	ug/L	06/12/14 15:41	06/16/14 17:16	1
5	Surrogate	%Recovery Qualifi	ier Limits		Prepared	Analyzed	Dil Fac
2	2-Fluorobiphenyl	100	38 - 130		06/12/14 15:41	06/16/14 17:16	1
1	Nitrobenzene-d5 (Surr)	110	39 - 130		06/12/14 15:41	06/16/14 17:16	1
7	Terphenyl-d14 (Surr)	122	10 - 143		06/12/14 15:41	06/16/14 17:16	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 18:57	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 18:57	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 18:57	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 18:57	1
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 18:57	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.4		0.10		mg/L			06/13/14 16:46	2
Nitrate as N	0.32		0.050		mg/L			06/06/14 16:33	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	160		5.0		mg/L			06/12/14 21:42	1

Dil Fac

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-02-LOW_06052014

Date Collected: 06/05/14 10:45 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil F
Acetone	25	U	25	ug/L		06/13/14 16:08	
Benzene	1.0	U	1.0	ug/L		06/13/14 16:08	
Bromodichloromethane	1.0	U	1.0	ug/L		06/13/14 16:08	
3romoform Sromoform	1.0	U	1.0	ug/L		06/13/14 16:08	
Bromomethane	5.0	U	5.0	ug/L		06/13/14 16:08	
2-Butanone	10	U	10	ug/L		06/13/14 16:08	
Carbon disulfide	2.0	U	2.0	ug/L		06/13/14 16:08	
Carbon tetrachloride	1.0	U	1.0	ug/L		06/13/14 16:08	
Chlorobenzene	1.0	U	1.0	ug/L		06/13/14 16:08	
Chloroethane	5.0	U	5.0	ug/L		06/13/14 16:08	
Chloroform	1.0	U	1.0	ug/L		06/13/14 16:08	
Chloromethane	1.0	U	1.0	ug/L		06/13/14 16:08	
cis-1,2-Dichloroethene	1.0		1.0	ug/L		06/13/14 16:08	
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 16:08	
Cyclohexane	1.0	U	1.0	ug/L		06/13/14 16:08	
Dibromochloromethane	1.0	U	1.0	ug/L		06/13/14 16:08	
,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		06/13/14 16:08	
,2-Dibromoethane	1.0	U	1.0	ug/L		06/13/14 16:08	
,2-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 16:08	
,3-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 16:08	
,4-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 16:08	
Dichlorodifluoromethane	1.0		1.0	ug/L		06/13/14 16:08	
,1-Dichloroethane	1.0		1.0	ug/L		06/13/14 16:08	
,2-Dichloroethane	1.0		1.0	ug/L		06/13/14 16:08	
,1-Dichloroethene	1.0		1.0	ug/L		06/13/14 16:08	
,2-Dichloropropane	1.0		1.0	ug/L		06/13/14 16:08	
Ethylbenzene	1.0		1.0	ug/L		06/13/14 16:08	
?-Hexanone	10		10	ug/L		06/13/14 16:08	
sopropylbenzene	1.0		1.0	ug/L		06/13/14 16:08	
Nethyl acetate	1.0		1.0	ug/L		06/13/14 16:08	
Methylcyclohexane	1.0		1.0	ug/L		06/13/14 16:08	
Methylene Chloride	5.0		5.0	ug/L		06/13/14 16:08	
-Methyl-2-pentanone	10		10	ug/L		06/13/14 16:08	
Methyl tert-butyl ether	10		10	ug/L		06/13/14 16:08	
Styrene	1.0		1.0	ug/L		06/13/14 16:08	
,1,2,2-Tetrachloroethane	1.0		1.0			06/13/14 16:08	
etrachloroethene	1.0		1.0	ug/L		06/13/14 16:08	
oluene	1.0			ug/L		06/13/14 16:08	
	1.0		1.0	ug/L			
rans-1,2-Dichloroethene			1.0	ug/L		06/13/14 16:08	
rans-1,3-Dichloropropene	1.0		1.0	ug/L		06/13/14 16:08	
,2,4-Trichlorobenzene	1.0		1.0	ug/L		06/13/14 16:08	
,1,1-Trichloroethane	1.0		1.0	ug/L		06/13/14 16:08	
,1,2-Trichloroethane	1.0		1.0	ug/L		06/13/14 16:08	
richloroethene	1.0		1.0	ug/L		06/13/14 16:08	
Frichlorofluoromethane	1.0		1.0	ug/L		06/13/14 16:08	
I,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L		06/13/14 16:08	
/inyl chloride	1.0 2.0		1.0 2.0	ug/L		06/13/14 16:08	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-02-LOW_06052014

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-5

ib Sample 1D. 000-102049-3

Matrix: Water

Date Collected: 06/05/14 10:45 Date Received: 06/06/14 08:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130		06/13/14 16:08	1
Dibromofluoromethane	98		70 - 130		06/13/14 16:08	1
Toluene-d8 (Surr)	97		70 - 130		06/13/14 16:08	1

Toluene-d8 (Surr)	97		70 - 130					06/13/14 16:08	1
Method: 8270D - Semivolatile Orga	nic Compou	nds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Acenaphthylene	9.7	U *	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Chrysene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Fluorene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Naphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Phenanthrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		38 - 130				06/12/14 15:41	06/16/14 17:41	1
Nitrobenzene-d5 (Surr)	102		39 - 130				06/12/14 15:41	06/16/14 17:41	1
Terphenyl-d14 (Surr)	100		10 - 143				06/12/14 15:41	06/16/14 17:41	1
- Method: 6010C - Metals (ICP) - Diss	olved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:02	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:02	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 19:02	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:02	1
Zinc -	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:02	1
General Chemistry									
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.6		0.10		mg/L			06/13/14 16:46	2
Nitrate as N	0.22		0.050		mg/L			06/06/14 16:34	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	170		5.0		mg/L			06/12/14 21:34	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-6

Client Sample ID: PDMW-26T_06052014

Date Collected: 06/05/14 11:35 Matrix: Water Date Received: 06/06/14 08:35

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Acetone	25	U	25	ug/L		06/13/14 16:32	1
Benzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
Bromodichloromethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
Bromoform	1.0	U	1.0	ug/L		06/13/14 16:32	1
Bromomethane	5.0	U	5.0	ug/L		06/13/14 16:32	1
2-Butanone	10	U	10	ug/L		06/13/14 16:32	1
Carbon disulfide	2.0	U	2.0	ug/L		06/13/14 16:32	1
Carbon tetrachloride	1.0	U	1.0	ug/L		06/13/14 16:32	1
Chlorobenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
Chloroethane	5.0	U	5.0	ug/L		06/13/14 16:32	1
Chloroform	1.0	U	1.0	ug/L		06/13/14 16:32	1
Chloromethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 16:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 16:32	1
Cyclohexane	1.0	U	1.0	ug/L		06/13/14 16:32	1
Dibromochloromethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,2-Dibromoethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
Dichlorodifluoromethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,1-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,2-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,1-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,2-Dichloropropane	1.0	U	1.0	ug/L		06/13/14 16:32	1
Ethylbenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
2-Hexanone	10	U	10	ug/L		06/13/14 16:32	1
Isopropylbenzene	1.0	U	1.0	ug/L		06/13/14 16:32	1
Methyl acetate	1.0	U	1.0	ug/L		06/13/14 16:32	1
Methylcyclohexane	1.0	U	1.0	ug/L		06/13/14 16:32	1
Methylene Chloride	5.0	U	5.0	ug/L		06/13/14 16:32	1
4-Methyl-2-pentanone	10	U	10	ug/L		06/13/14 16:32	1
Methyl tert-butyl ether	10	U	10	ug/L		06/13/14 16:32	1
Styrene	1.0	U	1.0	ug/L		06/13/14 16:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L		06/13/14 16:32	1
Tetrachloroethene	1.0		1.0	ug/L		06/13/14 16:32	1
Toluene	1.0		1.0	ug/L		06/13/14 16:32	1
trans-1,2-Dichloroethene	1.0		1.0	ug/L		06/13/14 16:32	1
trans-1,3-Dichloropropene	1.0		1.0	ug/L		06/13/14 16:32	1
1,2,4-Trichlorobenzene	1.0		1.0	ug/L		06/13/14 16:32	1
1,1,1-Trichloroethane	1.0		1.0	ug/L		06/13/14 16:32	1
1,1,2-Trichloroethane	1.0		1.0	ug/L		06/13/14 16:32	
Trichloroethene	1.0		1.0	ug/L		06/13/14 16:32	1
Trichlorofluoromethane	1.0		1.0	ug/L		06/13/14 16:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L		06/13/14 16:32	
Vinyl chloride	1.0		1.0	ug/L		06/13/14 16:32	1
Xylenes, Total	2.0		2.0	ug/L		06/13/14 16:32	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: PDMW-26T_06052014

Date Collected: 06/05/14 11:35 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130	06/13/14 16:32	1
Dibromofluoromethane	100		70 - 130	06/13/14 16:32	1
Toluene-d8 (Surr)	103		70 - 130	06/13/14 16:32	1

Dibromonuoromemane	100		70 - 130					06/13/14 16.32	
Toluene-d8 (Surr)	103		70 - 130					06/13/14 16:32	
Method: 8270D - Semivolatile Org	ganic Compou	nds (GC/MS	3)						
Analyte	-	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Acenaphthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Acenaphthylene	9.8	U *	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Chrysene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Fluorene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
1-Methylnaphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
2-Methylnaphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Naphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Phenanthrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:06	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2-Fluorobiphenyl	107		38 - 130				06/12/14 15:41	06/16/14 18:06	
Nitrobenzene-d5 (Surr)	115		39 - 130				06/12/14 15:41	06/16/14 18:06	
Terphenyl-d14 (Surr)	74		10 - 143				06/12/14 15:41	06/16/14 18:06	
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Arsenic	25		20		ug/L		06/07/14 09:43	06/10/14 19:51	
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:51	
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:51	
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 19:51	
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 19:51	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Ammonia	600		25		mg/L			06/13/14 16:37	5
Nitrate as N	1.1		0.050		mg/L			06/06/14 16:38	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-7

Matrix: Water

Client Sample ID: MW-3R_06052014

Date Collected: 06/05/14 13:25 Date Received: 06/06/14 08:35

Method: 8260B - Volatile Organ						_			5".5
Analyte	Result	Qualifier	RL	MDL		D _	Prepared	Analyzed	Dil Fac
Acetone			25		ug/L			06/13/14 16:57	1
Benzene	1.0		1.0		ug/L			06/13/14 16:57	1
Bromodichloromethane	1.0		1.0		ug/L			06/13/14 16:57	
Bromoform	1.0		1.0		ug/L			06/13/14 16:57	1
Bromomethane	5.0		5.0		ug/L			06/13/14 16:57	1
2-Butanone	10		10		ug/L			06/13/14 16:57	
Carbon disulfide	2.0		2.0		ug/L			06/13/14 16:57	1
Carbon tetrachloride	1.0		1.0		ug/L			06/13/14 16:57	1
Chlorobenzene	1.0		1.0		ug/L			06/13/14 16:57	1
Chloroethane	5.0		5.0		ug/L			06/13/14 16:57	1
Chloroform	1.0	U	1.0		ug/L			06/13/14 16:57	1
Chloromethane	1.0	U	1.0		ug/L			06/13/14 16:57	
cis-1,2-Dichloroethene	1.0		1.0		ug/L			06/13/14 16:57	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			06/13/14 16:57	1
Cyclohexane	1.0	U	1.0		ug/L			06/13/14 16:57	1
Dibromochloromethane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/13/14 16:57	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			06/13/14 16:57	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/13/14 16:57	1
Ethylbenzene	1.0	U	1.0		ug/L			06/13/14 16:57	1
2-Hexanone	10	U	10		ug/L			06/13/14 16:57	1
sopropylbenzene	1.0	U	1.0		ug/L			06/13/14 16:57	1
Methyl acetate	1.0	U	1.0		ug/L			06/13/14 16:57	1
Methylcyclohexane	1.0	U	1.0		ug/L			06/13/14 16:57	
Methylene Chloride	5.0	U	5.0		ug/L			06/13/14 16:57	1
4-Methyl-2-pentanone	10	U	10		ug/L			06/13/14 16:57	1
Methyl tert-butyl ether	10		10		ug/L			06/13/14 16:57	1
Styrene	1.0		1.0		ug/L			06/13/14 16:57	1
1,1,2,2-Tetrachloroethane	1.0		1.0		ug/L			06/13/14 16:57	1
Tetrachloroethene	1.0		1.0		ug/L			06/13/14 16:57	· · · · · · · · · · · · · · · · · · ·
Toluene	1.0		1.0		ug/L			06/13/14 16:57	1
trans-1,2-Dichloroethene	1.0		1.0		ug/L			06/13/14 16:57	1
rans-1,3-Dichloropropene	1.0		1.0		ug/L			06/13/14 16:57	·
1,2,4-Trichlorobenzene	1.0		1.0		ug/L			06/13/14 16:57	1
1,1,1-Trichloroethane	1.0		1.0					06/13/14 16:57	1
	1.0				ug/L				
1,1,2-Trichloroethane Trichloroethene			1.0		ug/L			06/13/14 16:57	1
	1.0		1.0		ug/L			06/13/14 16:57	1
Trichlorofluoromethane	1.0		1.0		ug/L			06/13/14 16:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0		ug/L			06/13/14 16:57	1
Vinyl chloride	1.0	U	1.0		ug/L			06/13/14 16:57	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: MW-3R_06052014

Date Collected: 06/05/14 13:25 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-7

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		70 - 130		06/13/14 16:57	1
Dibromofluoromethane	97		70 - 130		06/13/14 16:57	1
Toluene-d8 (Surr)	99		70 - 130		06/13/14 16:57	1

Dibromofluoromethane	97		70 - 130					06/13/14 16:57	
Toluene-d8 (Surr)	99		70 - 130					06/13/14 16:57	
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Acenaphthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Acenaphthylene	10	U *	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Benzo[a]anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Benzo[a]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Benzo[b]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Benzo[g,h,i]perylene	10		10		ug/L		06/12/14 15:41	06/16/14 18:30	
Benzo[k]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Chrysene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Dibenz(a,h)anthracene	10		10		ug/L		06/12/14 15:41	06/16/14 18:30	
Fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Fluorene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Indeno[1,2,3-cd]pyrene	10		10		ug/L		06/12/14 15:41	06/16/14 18:30	
1-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Naphthalene	10		10		ug/L		06/12/14 15:41	06/16/14 18:30	
Phenanthrene	10		10		ug/L		06/12/14 15:41	06/16/14 18:30	
Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 18:30	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2-Fluorobiphenyl	94		38 - 130				06/12/14 15:41	06/16/14 18:30	-
Nitrobenzene-d5 (Surr)	98		39 - 130				06/12/14 15:41	06/16/14 18:30	
Terphenyl-d14 (Surr)	102		10 - 143				06/12/14 15:41	06/16/14 18:30	
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 19:55	
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:55	
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:55	
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 19:55	
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 19:55	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Ammonia	3.9		0.25	·	mg/L			06/13/14 16:46	
Nitrate as N	0.050	11	0.050		mg/L			06/06/14 16:39	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: PDMW-52_06052014

Date Received: 06/06/14 08:35

Lab Sample ID: 680-102049-8 Date Collected: 06/05/14 12:50

Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	11		0.50		mg/L			06/13/14 14:56	10
Nitrate as N	0.050	U	0.050		ma/L			06/06/14 16:40	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: PDMW-10R_06052014

Date Collected: 06/05/14 13:05 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-9

Matrix: Water

Analyte		Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	ug/L			06/13/14 17:21	1
Benzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
Bromodichloromethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
Bromoform	1.0	U	1.0	ug/L			06/13/14 17:21	1
Bromomethane	5.0	U	5.0	ug/L			06/13/14 17:21	1
2-Butanone	10	U	10	ug/L			06/13/14 17:21	1
Carbon disulfide	2.0	U	2.0	ug/L			06/13/14 17:21	1
Carbon tetrachloride	1.0	U	1.0	ug/L			06/13/14 17:21	1
Chlorobenzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
Chloroethane	5.0	U	5.0	ug/L			06/13/14 17:21	1
Chloroform	1.0	U	1.0	ug/L			06/13/14 17:21	1
Chloromethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 17:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 17:21	1
Cyclohexane	1.0		1.0	ug/L			06/13/14 17:21	1
Dibromochloromethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2-Dibromoethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 17:21	•
Dichlorodifluoromethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,1-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			06/13/14 17:21	1
Ethylbenzene	1.0	U	1.0	ug/L			06/13/14 17:21	•
2-Hexanone	10	U	10	ug/L			06/13/14 17:21	1
Isopropylbenzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
Methyl acetate	1.0	U	1.0	ug/L			06/13/14 17:21	1
Methylcyclohexane	1.0	U	1.0	ug/L			06/13/14 17:21	1
Methylene Chloride	5.0	U	5.0	ug/L			06/13/14 17:21	1
4-Methyl-2-pentanone	10	U	10	ug/L			06/13/14 17:21	1
Methyl tert-butyl ether	10	U	10	ug/L			06/13/14 17:21	1
Styrene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
Tetrachloroethene	1.0	U	1.0	ug/L			06/13/14 17:21	
Toluene	1.0	U	1.0	ug/L			06/13/14 17:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 17:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 17:21	1
Trichloroethene	1.0	U	1.0	ug/L			06/13/14 17:21	
Trichlorofluoromethane	1.0	U	1.0	ug/L			06/13/14 17:21	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	ug/L			06/13/14 17:21	
Vinyl chloride	1.0		1.0	ug/L			06/13/14 17:21	1
Xylenes, Total	2.0		2.0	ug/L			06/13/14 17:21	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: PDMW-10R_06052014

Date Collected: 06/05/14 13:05 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared Ana	lyzed Dil Fac	;
4-Bromofluorobenzene	98		70 - 130	06/13/	14 17:21 1	į
Dibromofluoromethane	100		70 - 130	06/13/	14 17:21 1	1
Toluene-d8 (Surr)	99		70 - 130	06/13/	14 17:21 1	!

Dibiomonaoromounano	100		, 0 = , 00					00, 10, 11, 11, 21	
Toluene-d8 (Surr)	99		70 - 130					06/13/14 17:21	
: Method: 8270D - Semivolatile Org	nanic Compou	nds (GC/MS	3)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Acenaphthylene	9.8	U *	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Benzo[a]anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Benzo[a]pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Chrysene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Fluoranthene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Fluorene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
1-Methylnaphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
2-Methylnaphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Naphthalene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Phenanthrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Pyrene	9.8	U	9.8		ug/L		06/12/14 15:41	06/16/14 18:54	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	92		38 - 130				06/12/14 15:41	06/16/14 18:54	
Nitrobenzene-d5 (Surr)	106		39 - 130				06/12/14 15:41	06/16/14 18:54	
Terphenyl-d14 (Surr)	69		10 - 143				06/12/14 15:41	06/16/14 18:54	
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 19:59	
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:59	
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 19:59	
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 19:59	
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 19:59	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Ammonia	13		0.50		mg/L			06/13/14 15:06	1
Nitrate as N	0.050		0.050		mg/L			06/06/14 16:42	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: DUP-03_06052014

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-10

Matrix: Water

Date Collected: 06/05/14 00:00 Date Received: 06/06/14 08:35

General Chemistry Analyte	Result	Qualifier	RL	MDL (Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	8.8		0.25	r	mg/L			06/13/14 15:16	5
Nitrate as N	0.050	U	0.050	r	mg/L			06/06/14 16:43	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: PDMW-13P_06052014

Date Collected: 06/05/14 14:50 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-11

Matrix: Water

Analyte		Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil F
Acetone	25	U	25	ug/L		06/13/14 17:45	
Benzene	1.0	U	1.0	ug/L		06/13/14 17:45	
Bromodichloromethane	1.0	U	1.0	ug/L		06/13/14 17:45	
Bromoform	1.0	U	1.0	ug/L		06/13/14 17:45	
Bromomethane	5.0	U	5.0	ug/L		06/13/14 17:45	
2-Butanone	10	U	10	ug/L		06/13/14 17:45	
Carbon disulfide	2.0	U	2.0	ug/L		06/13/14 17:45	
Carbon tetrachloride	1.0	U	1.0	ug/L		06/13/14 17:45	
Chlorobenzene	1.0	U	1.0	ug/L		06/13/14 17:45	
Chloroethane	5.0	U	5.0	ug/L		06/13/14 17:45	
Chloroform	1.0	U	1.0	ug/L		06/13/14 17:45	
Chloromethane	1.0	U	1.0	ug/L		06/13/14 17:45	
sis-1,2-Dichloroethene	1.0		1.0	ug/L		06/13/14 17:45	
is-1,3-Dichloropropene	1.0		1.0	ug/L		06/13/14 17:45	
Cyclohexane	1.0		1.0	ug/L		06/13/14 17:45	
Dibromochloromethane	1.0		1.0	ug/L		06/13/14 17:45	
,2-Dibromo-3-Chloropropane	1.0		1.0	ug/L		06/13/14 17:45	
,2-Dibromoethane	1.0		1.0	ug/L		06/13/14 17:45	
,2-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 17:45	
,3-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 17:45	
,4-Dichlorobenzene	1.0		1.0	ug/L		06/13/14 17:45	
Dichlorodifluoromethane	1.0		1.0	ug/L		06/13/14 17:45	
,1-Dichloroethane	1.0		1.0	ug/L		06/13/14 17:45	
,2-Dichloroethane	1.0		1.0	ug/L		06/13/14 17:45	
,1-Dichloroethene	1.0		1.0	ug/L		06/13/14 17:45	
,2-Dichloropropane	1.0		1.0	ug/L		06/13/14 17:45	
Ethylbenzene	1.0		1.0	ug/L		06/13/14 17:45	
-Hexanone	10		10	ug/L		06/13/14 17:45	
sopropylbenzene	1.0		1.0	ug/L		06/13/14 17:45	
Methyl acetate	1.0		1.0	ug/L		06/13/14 17:45	
Methylcyclohexane	1.0		1.0	.		06/13/14 17:45	
• •	5.0		5.0	ug/L		06/13/14 17:45	
Methyl 2 partonage				ug/L			
-Methyl-2-pentanone	10		10	ug/L		06/13/14 17:45	
Methyl tert-butyl ether	10		10	ug/L		06/13/14 17:45 06/13/14 17:45	
Styrene	1.0		1.0	ug/L			
,1,2,2-Tetrachloroethane	1.0		1.0	ug/L		06/13/14 17:45	
etrachloroethene	1.0		1.0	ug/L		06/13/14 17:45	
oluene	1.0		1.0	ug/L		06/13/14 17:45	
ans-1,2-Dichloroethene	1.0		1.0	ug/L		06/13/14 17:45	
ans-1,3-Dichloropropene	1.0		1.0	ug/L		06/13/14 17:45	
,2,4-Trichlorobenzene	1.0		1.0	ug/L		06/13/14 17:45	
,1,1-Trichloroethane	1.0		1.0	ug/L		06/13/14 17:45	
,1,2-Trichloroethane	1.0		1.0	ug/L		06/13/14 17:45	
richloroethene	1.0		1.0	ug/L		06/13/14 17:45	
richlorofluoromethane	1.0		1.0	ug/L		06/13/14 17:45	
,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L		06/13/14 17:45	
'inyl chloride	1.0	U	1.0	ug/L		06/13/14 17:45	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

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Client Sample ID: PDMW-13P_06052014

Date Collected: 06/05/14 14:50 Date Received: 06/06/14 08:35

Nitrate as N

Lab Sample ID: 680-102049-11

Matrix: Water

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	4-Bromofluorobenzene	96		70 - 130		06/13/14 17:45	1
	Dibromofluoromethane	98		70 - 130		06/13/14 17:45	1
L	Toluene-d8 (Surr)	99		70 - 130		06/13/14 17:45	1

Dibromofluoromethane	98		70 - 130					06/13/14 17:45	1
Toluene-d8 (Surr)	99		70 - 130					06/13/14 17:45	1
_ Method: 8270D - Semivolatile Org	nanic Compou	nds (GC/M	S)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Acenaphthylene	9.7	U *	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Chrysene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Fluorene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Naphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Phenanthrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		38 - 130				06/12/14 15:41	06/16/14 19:18	1
Nitrobenzene-d5 (Surr)	87		39 - 130				06/12/14 15:41	06/16/14 19:18	1
Terphenyl-d14 (Surr)	89		10 - 143				06/12/14 15:41	06/16/14 19:18	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 20:03	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 20:03	1
Lead	21		10		ug/L		06/07/14 09:43	06/10/14 20:03	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 20:03	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 20:03	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.9	-	0.10		mg/L			06/13/14 17:11	2

06/06/14 16:44

0.050

mg/L

0.21

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-03-HIGH_06052014

Date Collected: 06/05/14 14:25 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil F
Acetone	25	U	25	ug/L		06/13/14 18:10	
Benzene	1.0	U	1.0	ug/L		06/13/14 18:10	
Bromodichloromethane	1.0	U	1.0	ug/L		06/13/14 18:10	
Bromoform	1.0	U	1.0	ug/L		06/13/14 18:10	
Bromomethane	5.0	U	5.0	ug/L		06/13/14 18:10	
2-Butanone	10	U	10	ug/L		06/13/14 18:10	
Carbon disulfide	2.0	U	2.0	ug/L		06/13/14 18:10	
Carbon tetrachloride	1.0	U	1.0	ug/L		06/13/14 18:10	
Chlorobenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
Chloroethane	5.0	U	5.0	ug/L		06/13/14 18:10	
Chloroform	1.0	U	1.0	ug/L		06/13/14 18:10	
Chloromethane	1.0	U	1.0	ug/L		06/13/14 18:10	
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 18:10	
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 18:10	
Cyclohexane	1.0	U	1.0	ug/L		06/13/14 18:10	
Dibromochloromethane	1.0	U	1.0	ug/L		06/13/14 18:10	
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		06/13/14 18:10	
1,2-Dibromoethane	1.0	U	1.0	ug/L		06/13/14 18:10	
I,2-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
1,3-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
I,4-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
Dichlorodifluoromethane	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
1,2-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 18:10	
1,2-Dichloropropane	1.0	U	1.0	ug/L		06/13/14 18:10	
Ethylbenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
2-Hexanone	10	U	10	ug/L		06/13/14 18:10	
sopropylbenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
Methyl acetate	1.0	U	1.0	ug/L		06/13/14 18:10	
Methylcyclohexane	1.0	U	1.0	ug/L		06/13/14 18:10	
Methylene Chloride	5.0	U	5.0	ug/L		06/13/14 18:10	
1-Methyl-2-pentanone	10	U	10	ug/L		06/13/14 18:10	
Methyl tert-butyl ether	10	U	10	ug/L		06/13/14 18:10	
Styrene	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
Tetrachloroethene	1.0	U	1.0	ug/L		06/13/14 18:10	
Гoluene	1.0	U	1.0	ug/L		06/13/14 18:10	
rans-1,2-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 18:10	
rans-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 18:10	
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1,1-Trichloroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1,2-Trichloroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
Trichloroethene	1.0	U	1.0	ug/L		06/13/14 18:10	
Trichlorofluoromethane	1.0	U	1.0	ug/L		06/13/14 18:10	
I,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	ug/L		06/13/14 18:10	
/inyl chloride	1.0	U	1.0	ug/L		06/13/14 18:10	
Kylenes, Total	2.0	U	2.0	ug/L		06/13/14 18:10	

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-03-HIGH_06052014

Date Collected: 06/05/14 14:25 Date Received: 06/06/14 08:35

Alkalinity

Lab Sample ID: 680-102049-12

Matrix: Water

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99	70 - 130		06/13/14 18:10	1
Dibromofluoromethane	98	70 - 130		06/13/14 18:10	1
Toluene-d8 (Surr)	102	70 - 130		06/13/14 18:10	1

Method: 8270D - Semivolatile Org	janic Compou	nds (GC/M	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Acenaphthylene	9.7	U *	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Chrysene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Fluorene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Naphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Phenanthrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/16/14 19:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97	-	38 - 130				06/12/14 15:41	06/16/14 19:42	1
Nitrobenzene-d5 (Surr)	107		39 - 130				06/12/14 15:41	06/16/14 19:42	1
Terphenyl-d14 (Surr)	104		10 - 143				06/12/14 15:41	06/16/14 19:42	1
- Method: 6010C - Metals (ICP) - Di	ssolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:07	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:07	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 19:07	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:07	1
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:07	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.31		0.050		mg/L			06/13/14 12:21	1
Nitrate as N	0.36		0.050		mg/L			06/06/14 16:45	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

06/15/14 22:12

5.0

67

mg/L

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

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Client Sample ID: SW-04-HIGH_06052014

Date Collected: 06/05/14 14:45 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fa
Acetone	25		25	ug/L		<u> </u>	06/13/14 18:34	
Benzene	1.0	U	1.0	ug/L			06/13/14 18:34	
Bromodichloromethane	1.0	U	1.0	ug/L			06/13/14 18:34	
Bromoform	1.0	U	1.0	ug/L			06/13/14 18:34	
Bromomethane	5.0	U	5.0	ug/L			06/13/14 18:34	
2-Butanone	10	U	10	ug/L			06/13/14 18:34	
Carbon disulfide	2.0		2.0	ug/L			06/13/14 18:34	
Carbon tetrachloride	1.0	U	1.0	ug/L			06/13/14 18:34	
Chlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:34	
Chloroethane	5.0		5.0	ug/L			06/13/14 18:34	
Chloroform	1.0		1.0	ug/L			06/13/14 18:34	
Chloromethane	1.0		1.0	ug/L			06/13/14 18:34	
cis-1,2-Dichloroethene	1.0		1.0	ug/L			06/13/14 18:34	
cis-1,3-Dichloropropene	1.0		1.0	ug/L			06/13/14 18:34	
Cyclohexane	1.0		1.0	ug/L			06/13/14 18:34	
Dibromochloromethane	1.0		1.0	ug/L ug/L			06/13/14 18:34	
1,2-Dibromo-3-Chloropropane	1.0		1.0	ug/L			06/13/14 18:34	
1,2-Dibromoethane	1.0		1.0	ug/L ug/L			06/13/14 18:34	
1,2-Dichlorobenzene	1.0		1.0				06/13/14 18:34	
1,3-Dichlorobenzene	1.0		1.0	ug/L ug/L			06/13/14 18:34	
	1.0		1.0	_			06/13/14 18:34	
1,4-Dichlorobenzene Dichlorodifluoromethane	1.0			ug/L			06/13/14 18:34	
			1.0	ug/L				
1,1-Dichloroethane	1.0		1.0	ug/L			06/13/14 18:34	
1,2-Dichloroethane	1.0		1.0	ug/L			06/13/14 18:34	
1,1-Dichloroethene	1.0		1.0	ug/L			06/13/14 18:34	
1,2-Dichloropropane	1.0		1.0	ug/L			06/13/14 18:34	
Ethylbenzene	1.0		1.0	ug/L			06/13/14 18:34	
2-Hexanone	10		10	ug/L			06/13/14 18:34	
Isopropylbenzene	1.0		1.0	ug/L			06/13/14 18:34	
Methyl acetate	1.0		1.0	ug/L			06/13/14 18:34	
Methylcyclohexane	1.0		1.0	ug/L			06/13/14 18:34	
Methylene Chloride	5.0		5.0	ug/L			06/13/14 18:34	
4-Methyl-2-pentanone	10		10	ug/L			06/13/14 18:34	
Methyl tert-butyl ether	10		10	ug/L			06/13/14 18:34	
Styrene	1.0		1.0	ug/L			06/13/14 18:34	
1,1,2,2-Tetrachloroethane	1.0		1.0	ug/L			06/13/14 18:34	
Tetrachloroethene	1.0	U	1.0	ug/L			06/13/14 18:34	
Toluene	1.0	U	1.0	ug/L			06/13/14 18:34	
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 18:34	
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 18:34	
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:34	
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 18:34	
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 18:34	
Trichloroethene	1.0	U	1.0	ug/L			06/13/14 18:34	
Trichlorofluoromethane	1.0	U	1.0	ug/L			06/13/14 18:34	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	ug/L			06/13/14 18:34	
Vinyl chloride	1.0	U	1.0	ug/L			06/13/14 18:34	
Xylenes, Total	2.0	U	2.0	ug/L			06/13/14 18:34	

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-04-HIGH_06052014

Lab Sample ID: 680-102049-13 Date Collected: 06/05/14 14:45

Matrix: Water

Date Received: 06/06/14 08:35

Analyte

Alkalinity

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130		06/13/14 18:34	1
Dibromofluoromethane	98		70 - 130		06/13/14 18:34	1
Toluene-d8 (Surr)	99		70 - 130		06/13/14 18:34	1

- Toluene-uo (Sun)	99		70 - 130					00/13/14 10.34	,
Method: 8270D - Semivolatil				Mari		_			D.: E
Analyte		Qualifier U		MDL	Unit ug/L	D	Prepared 06/12/14 15:41	Analyzed 06/16/14 20:07	Dil Fac
Acenaphthene Acenaphthylene			10		ug/L ug/L		06/12/14 15:41	06/16/14 20:07	1
Anthracene	10		10		ug/L ug/L		06/12/14 15:41	06/16/14 20:07	1
	10		10				06/12/14 15:41		· · · · · · · · · · · 1
Benzo[a]anthracene	10		10		ug/L			06/16/14 20:07	1
Benzo[a]pyrene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Benzo[b]fluoranthene					ug/L		06/12/14 15:41	06/16/14 20:07	
Benzo[g,h,i]perylene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Benzo[k]fluoranthene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Chrysene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	
Dibenz(a,h)anthracene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Fluoranthene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Fluorene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Indeno[1,2,3-cd]pyrene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
1-Methylnaphthalene	10		10		ug/L		06/12/14 15:41	06/16/14 20:07	1
2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Naphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Phenanthrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		38 - 130				06/12/14 15:41	06/16/14 20:07	1
Nitrobenzene-d5 (Surr)	109		39 - 130				06/12/14 15:41	06/16/14 20:07	1
Terphenyl-d14 (Surr)	98		10 - 143				06/12/14 15:41	06/16/14 20:07	1
- Method: 6010C - Metals (ICP) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:11	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:11	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 19:11	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:11	1
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:11	1
-									
General Chemistry									
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
•	Result 0.39	Qualifier	RL	MDL	Unit mg/L	<u>D</u>	Prepared	Analyzed 06/13/14 12:21	Dil Fac

Analyzed

06/15/14 22:06

Dil Fac

RL

5.0

RL Unit

mg/L

D

Prepared

Result Qualifier

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-02-HIGH_06052014

Date Collected: 06/05/14 15:15 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-14

Matrix: Water

Analyte		Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	ug/L			06/13/14 18:58	1
Benzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Bromodichloromethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
Bromoform	1.0	U	1.0	ug/L			06/13/14 18:58	1
Bromomethane	5.0	U	5.0	ug/L			06/13/14 18:58	1
2-Butanone	10	U	10	ug/L			06/13/14 18:58	1
Carbon disulfide	2.0	U	2.0	ug/L			06/13/14 18:58	1
Carbon tetrachloride	1.0	U	1.0	ug/L			06/13/14 18:58	1
Chlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Chloroethane	5.0	U	5.0	ug/L			06/13/14 18:58	1
Chloroform	1.0	U	1.0	ug/L			06/13/14 18:58	1
Chloromethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 18:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Cyclohexane	1.0	U	1.0	ug/L			06/13/14 18:58	1
Dibromochloromethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,2-Dibromoethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Dichlorodifluoromethane	1.0	U	1.0	ug/L			06/13/14 18:58	,
1,1-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 18:58	
1,2-Dichloroethane	1.0	U	1.0	ug/L			06/13/14 18:58	
1,1-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			06/13/14 18:58	
Ethylbenzene	1.0	U	1.0	ug/L			06/13/14 18:58	•
2-Hexanone	10	U	10	ug/L			06/13/14 18:58	1
Isopropylbenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Methyl acetate	1.0	U	1.0	ug/L			06/13/14 18:58	1
Methylcyclohexane	1.0	U	1.0	ug/L			06/13/14 18:58	1
Methylene Chloride	5.0	U	5.0	ug/L			06/13/14 18:58	1
4-Methyl-2-pentanone	10	U	10	ug/L			06/13/14 18:58	1
Methyl tert-butyl ether	10	U	10	ug/L			06/13/14 18:58	1
Styrene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
Tetrachloroethene	1.0	U	1.0	ug/L			06/13/14 18:58	1
Toluene	1.0	U	1.0	ug/L			06/13/14 18:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 18:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L			06/13/14 18:58	1
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 18:58	
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			06/13/14 18:58	1
Trichloroethene	1.0		1.0	ug/L			06/13/14 18:58	
Trichlorofluoromethane	1.0	U	1.0	ug/L			06/13/14 18:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L			06/13/14 18:58	
Vinyl chloride	1.0		1.0	ug/L			06/13/14 18:58	
Xylenes, Total	2.0		2.0	ug/L			06/13/14 18:58	1

Limits

70 - 130

70 - 130

%Recovery Qualifier

98

97

20 U

Result Qualifier

Result Qualifier

0.12

0.37

45

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-02-HIGH_06052014

Date Collected: 06/05/14 15:15 Date Received: 06/06/14 08:35

Surrogate

Zinc

Analyte

Analyte

Alkalinity

Ammonia

Nitrate as N

General Chemistry

4-Bromofluorobenzene

Dibromofluoromethane

Lab Sample ID: 680-102049-14

Prepared

. Matrix: Water

Analyzed

06/13/14 18:58

06/13/14 18:58

Dil Fac

1

Toluene-d8 (Surr)	100		70 - 130					06/13/14 18:58	
Method: 8270D - Semivolati	ile Organic Compou	ınds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Acenaphthylene	9.5	U *	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Anthracene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Benzo[a]anthracene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Benzo[a]pyrene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Benzo[b]fluoranthene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Benzo[g,h,i]perylene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Benzo[k]fluoranthene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Chrysene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Dibenz(a,h)anthracene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Fluoranthene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Fluorene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Indeno[1,2,3-cd]pyrene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
1-Methylnaphthalene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
2-Methylnaphthalene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Naphthalene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Phenanthrene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Pyrene	9.5	U	9.5		ug/L		06/12/14 15:41	06/16/14 20:30	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	109		38 - 130				06/12/14 15:41	06/16/14 20:30	
Nitrobenzene-d5 (Surr)	113		39 - 130				06/12/14 15:41	06/16/14 20:30	
Terphenyl-d14 (Surr)	101		10 - 143				06/12/14 15:41	06/16/14 20:30	
- Method: 6010C - Metals (ICI	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:16	
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:16	
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 19:16	
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:16	

20

RL

0.050

0.050

RL

5.0

ug/L

mg/L

mg/L

mg/L

MDL Unit

RL Unit

06/07/14 11:38

Prepared

Prepared

D

D

06/17/14 19:16

Analyzed

06/13/14 12:21

06/06/14 16:54

Analyzed

06/16/14 00:06

Dil Fac

Dil Fac

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-15

Client Sample ID: SW-01-HIGH_06052014

Date Collected: 06/05/14 15:30
Date Received: 06/06/14 08:35

Matrix: Water

Mothod: 8260B - Volatile Organic Compounds	CCIME

Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fa
Acetone	25 U	25	ug/L		06/13/14 19:23	
Benzene	1.0 U	1.0	ug/L		06/13/14 19:23	
Bromodichloromethane	1.0 U	1.0	ug/L		06/13/14 19:23	
Bromoform	1.0 U	1.0	ug/L		06/13/14 19:23	
Bromomethane	5.0 U	5.0	ug/L		06/13/14 19:23	
2-Butanone	10 U	10	ug/L		06/13/14 19:23	
Carbon disulfide	2.0 U	2.0	ug/L		06/13/14 19:23	
Carbon tetrachloride	1.0 U	1.0	ug/L		06/13/14 19:23	
Chlorobenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
Chloroethane	5.0 U	5.0	ug/L		06/13/14 19:23	
Chloroform	1.0 U	1.0	ug/L		06/13/14 19:23	
Chloromethane	1.0 U	1.0	ug/L		06/13/14 19:23	
cis-1,2-Dichloroethene	1.0 U	1.0	ug/L		06/13/14 19:23	
cis-1,3-Dichloropropene	1.0 U	1.0	ug/L		06/13/14 19:23	
Cyclohexane	1.0 U	1.0	ug/L		06/13/14 19:23	
Dibromochloromethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2-Dibromo-3-Chloropropane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2-Dibromoethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2-Dichlorobenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
1,3-Dichlorobenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
1.4-Dichlorobenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
Dichlorodifluoromethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1-Dichloroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2-Dichloroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1-Dichloroethene	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2-Dichloropropane	1.0 U	1.0	ug/L		06/13/14 19:23	
Ethylbenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
2-Hexanone	1.0 U	1.0	.		06/13/14 19:23	
	1.0 U	1.0	ug/L		06/13/14 19:23	
Isopropylbenzene	1.0 U		ug/L			
Methyl acetate		1.0	ug/L		06/13/14 19:23	
Methylcyclohexane	1.0 U	1.0	ug/L		06/13/14 19:23	
Methylene Chloride	5.0 U	5.0	ug/L		06/13/14 19:23	
4-Methyl-2-pentanone	10 U	10	ug/L		06/13/14 19:23	
Methyl tert-butyl ether	10 U	10	ug/L		06/13/14 19:23	
Styrene	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
Tetrachloroethene	1.0 U	1.0	ug/L		06/13/14 19:23	
Toluene	1.0 U	1.0	ug/L		06/13/14 19:23	
trans-1,2-Dichloroethene	1.0 U	1.0	ug/L		06/13/14 19:23	
trans-1,3-Dichloropropene	1.0 U	1.0	ug/L		06/13/14 19:23	
1,2,4-Trichlorobenzene	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1,1-Trichloroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1,2-Trichloroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
Trichloroethene	1.0 U	1.0	ug/L		06/13/14 19:23	
Trichlorofluoromethane	1.0 U	1.0	ug/L		06/13/14 19:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0	ug/L		06/13/14 19:23	
Vinyl chloride	1.0 U	1.0	ug/L		06/13/14 19:23	
Xylenes, Total	2.0 U	2.0	ug/L		06/13/14 19:23	

TestAmerica Savannah

4

6

8

Limits

70 - 130

70 - 130

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: SW-01-HIGH_06052014

%Recovery

98

98

Result Qualifier

Result Qualifier

0.44

0.34

43

Qualifier

Date Collected: 06/05/14 15:30 Date Received: 06/06/14 08:35

Surrogate

Analyte

Analyte

Alkalinity

Ammonia

Nitrate as N

4-Bromofluorobenzene

Dibromofluoromethane

Lab Sample ID: 680-102049-15

Prepared

Matrix: Water

Analyzed

06/13/14 19:23

06/13/14 19:23

Dil Fac

1

2.0.0	• • • • • • • • • • • • • • • • • • • •							00, 10, 11, 10,20	
Toluene-d8 (Surr)	101		70 - 130					06/13/14 19:23	
Method: 8270D - Semivolati	le Organic Compou	inds (GC/M	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Acenaphthylene	10	U *	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Benzo[a]anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Benzo[a]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Benzo[b]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Benzo[g,h,i]perylene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Benzo[k]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Chrysene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Dibenz(a,h)anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Fluorene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
1-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Naphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Phenanthrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 20:55	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	87		38 - 130				06/12/14 15:41	06/16/14 20:55	-
Nitrobenzene-d5 (Surr)	97		39 - 130				06/12/14 15:41	06/16/14 20:55	
Terphenyl-d14 (Surr)	98		10 - 143				06/12/14 15:41	06/16/14 20:55	
Method: 6010C - Metals (ICF	P) - Dissolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:21	
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:21	
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 19:21	
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 19:21	
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 19:21	
General Chemistry									

Analyzed

06/13/14 12:21

06/06/14 17:11

Analyzed

06/16/14 00:13

RL

0.050

0.050

RL

5.0

MDL Unit

RL Unit

mg/L

mg/L

mg/L

D

D

Prepared

Prepared

Dil Fac

Dil Fac

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: TRIPBLANK_06052014

Date Collected: 06/05/14 00:00 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-16

Matrix: Water

Analyte		Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Acetone	25	U	25	ug/L		06/13/14 12:56	•
Benzene	1.0	U	1.0	ug/L		06/13/14 12:56	•
Bromodichloromethane	1.0	U	1.0	ug/L		06/13/14 12:56	•
Bromoform	1.0	U	1.0	ug/L		06/13/14 12:56	
Bromomethane	5.0	U	5.0	ug/L		06/13/14 12:56	•
2-Butanone	10	U	10	ug/L		06/13/14 12:56	•
Carbon disulfide	2.0	U	2.0	ug/L		06/13/14 12:56	
Carbon tetrachloride	1.0	U	1.0	ug/L		06/13/14 12:56	•
Chlorobenzene	1.0	U	1.0	ug/L		06/13/14 12:56	,
Chloroethane	5.0	U	5.0	ug/L		06/13/14 12:56	
Chloroform	1.0	U	1.0	ug/L		06/13/14 12:56	
Chloromethane	1.0	U	1.0	ug/L		06/13/14 12:56	
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 12:56	
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 12:56	
Cyclohexane	1.0	U	1.0	ug/L		06/13/14 12:56	
Dibromochloromethane	1.0	U	1.0	ug/L		06/13/14 12:56	
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		06/13/14 12:56	•
1,2-Dibromoethane	1.0	U	1.0	ug/L		06/13/14 12:56	•
1,2-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 12:56	,
1,3-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 12:56	
1,4-Dichlorobenzene	1.0	U	1.0	ug/L		06/13/14 12:56	
Dichlorodifluoromethane	1.0	U	1.0	ug/L		06/13/14 12:56	•
1,1-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 12:56	
1,2-Dichloroethane	1.0	U	1.0	ug/L		06/13/14 12:56	
1,1-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 12:56	
1,2-Dichloropropane	1.0	U	1.0	ug/L		06/13/14 12:56	
Ethylbenzene	1.0	U	1.0	ug/L		06/13/14 12:56	
2-Hexanone	10	U	10	ug/L		06/13/14 12:56	
Isopropylbenzene	1.0	U	1.0	ug/L		06/13/14 12:56	
Methyl acetate	1.0	U	1.0	ug/L		06/13/14 12:56	
Methylcyclohexane	1.0	U	1.0	ug/L		06/13/14 12:56	
Methylene Chloride	5.0	U	5.0	ug/L		06/13/14 12:56	
4-Methyl-2-pentanone	10	U	10	ug/L		06/13/14 12:56	
Methyl tert-butyl ether	10	U	10	ug/L		06/13/14 12:56	
Styrene	1.0	U	1.0	ug/L		06/13/14 12:56	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L		06/13/14 12:56	
Tetrachloroethene	1.0	U	1.0	ug/L		06/13/14 12:56	
Toluene	1.0	U	1.0	ug/L		06/13/14 12:56	
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L		06/13/14 12:56	
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L		06/13/14 12:56	
1,2,4-Trichlorobenzene	1.0		1.0	ug/L		06/13/14 12:56	
1,1,1-Trichloroethane	1.0		1.0	ug/L		06/13/14 12:56	
1,1,2-Trichloroethane	1.0		1.0	ug/L		06/13/14 12:56	
Trichloroethene	1.0		1.0	ug/L		06/13/14 12:56	
Trichlorofluoromethane	1.0		1.0	ug/L		06/13/14 12:56	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L		06/13/14 12:56	
Vinyl chloride	1.0		1.0	ug/L		06/13/14 12:56	,
Xylenes, Total	2.0		2.0	ug/L		06/13/14 12:56	,

TestAmerica Savannah

4

6

9

11

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Client Sample ID: TRIPBLANK_06052014

Date Collected: 06/05/14 00:00 Date Received: 06/06/14 08:35 Lab Sample ID: 680-102049-16

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130	_		06/13/14 12:56	1
Dibromofluoromethane	99		70 - 130			06/13/14 12:56	1
Toluene-d8 (Surr)	98		70 - 130			06/13/14 12:56	1

5

J

8

9

11

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-334022/7

Matrix: Water

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fa
Acetone	25	U –	25	ug/L			06/13/14 11:04	
Benzene	1.0	U	1.0	ug/L			06/13/14 11:04	
Bromodichloromethane	1.0	U	1.0	ug/L			06/13/14 11:04	
Bromoform	1.0	U	1.0	ug/L			06/13/14 11:04	
Bromomethane	5.0	U	5.0	ug/L			06/13/14 11:04	
2-Butanone	10	U	10	ug/L			06/13/14 11:04	
Carbon disulfide	2.0	U	2.0	ug/L			06/13/14 11:04	
Carbon tetrachloride	1.0	U	1.0	ug/L			06/13/14 11:04	
Chlorobenzene	1.0	U	1.0	ug/L			06/13/14 11:04	
Chloroethane	5.0	U	5.0	ug/L			06/13/14 11:04	
Chloroform	1.0	U	1.0	ug/L			06/13/14 11:04	
Chloromethane	1.0	U	1.0	ug/L			06/13/14 11:04	
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L			06/13/14 11:04	
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			06/13/14 11:04	
Cyclohexane	1.0	U	1.0	ug/L			06/13/14 11:04	
Dibromochloromethane	1.0		1.0	ug/L			06/13/14 11:04	
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L			06/13/14 11:04	
1,2-Dibromoethane	1.0	U	1.0	ug/L			06/13/14 11:04	
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 11:04	
1,3-Dichlorobenzene	1.0		1.0	ug/L			06/13/14 11:04	
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			06/13/14 11:04	
Dichlorodifluoromethane	1.0		1.0	ug/L			06/13/14 11:04	
1,1-Dichloroethane	1.0		1.0	ug/L			06/13/14 11:04	
1,2-Dichloroethane	1.0		1.0	ug/L			06/13/14 11:04	
1,1-Dichloroethene	1.0		1.0	ug/L			06/13/14 11:04	
1,2-Dichloropropane	1.0		1.0	ug/L			06/13/14 11:04	
Ethylbenzene	1.0		1.0	ug/L			06/13/14 11:04	
2-Hexanone	10		10	ug/L			06/13/14 11:04	
Isopropylbenzene	1.0		1.0	ug/L			06/13/14 11:04	
Methyl acetate	1.0		1.0	ug/L			06/13/14 11:04	
Methylcyclohexane	1.0		1.0	ug/L			06/13/14 11:04	
Methylene Chloride	5.0		5.0	ug/L			06/13/14 11:04	
4-Methyl-2-pentanone	10		10	ug/L			06/13/14 11:04	
Methyl tert-butyl ether	10		10	ug/L			06/13/14 11:04	
Styrene	1.0		1.0	ug/L			06/13/14 11:04	
1,1,2,2-Tetrachloroethane	1.0		1.0	ug/L			06/13/14 11:04	
Tetrachloroethene	1.0		1.0	ug/L			06/13/14 11:04	
Toluene	1.0		1.0	ug/L			06/13/14 11:04	
trans-1,2-Dichloroethene	1.0		1.0	ug/L			06/13/14 11:04	
trans-1,3-Dichloropropene	1.0		1.0	ug/L			06/13/14 11:04	
1,2,4-Trichlorobenzene	1.0		1.0				06/13/14 11:04	
, ,	1.0		1.0	ug/L			06/13/14 11:04	
1,1,1-Trichloroethane				ug/L				
1,1,2-Trichloroethane	1.0		1.0	ug/L			06/13/14 11:04	
Trichloroethene Trichlorofluoromethane	1.0		1.0	ug/L			06/13/14 11:04	
	1.0		1.0	ug/L			06/13/14 11:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	ug/L			06/13/14 11:04	
Vinyl chloride Xylenes, Total	1.0 2.0		1.0	ug/L			06/13/14 11:04 06/13/14 11:04	

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-334022/7

Lab Sample ID: LCS 680-334022/4

Matrix: Water

Analysis Batch: 334022

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130		06/13/14 11:04	1
Dibromofluoromethane	100		70 - 130		06/13/14 11:04	1
Toluene-d8 (Surr)	102		70 - 130		06/13/14 11:04	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis	Batcn:	334022

Matrix: Water

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	100	92.9		ug/L		93	39 - 162
Benzene	50.0	46.6		ug/L		93	74 - 123
Bromodichloromethane	50.0	52.1		ug/L		104	72 _ 129
Bromoform	50.0	53.2		ug/L		106	60 - 134
Bromomethane	50.0	62.2		ug/L		124	10 _ 171
2-Butanone	100	82.7		ug/L		83	55 ₋ 142
Carbon disulfide	50.0	47.2		ug/L		94	63 _ 142
Carbon tetrachloride	50.0	55.2		ug/L		110	70 ₋ 131
Chlorobenzene	50.0	46.6		ug/L		93	79 - 120
Chloroethane	50.0	60.0		ug/L		120	47 - 148
Chloroform	50.0	51.8		ug/L		104	76 ₋ 128
Chloromethane	50.0	47.0		ug/L		94	47 - 151
cis-1,2-Dichloroethene	50.0	47.5		ug/L		95	78 ₋ 127
cis-1,3-Dichloropropene	50.0	52.7		ug/L		105	73 - 128
Cyclohexane	50.0	46.9		ug/L		94	68 ₋ 137
Dibromochloromethane	50.0	59.1		ug/L		118	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	55.7		ug/L		111	57 ₋ 126
1,2-Dibromoethane	50.0	47.3		ug/L		95	75 ₋ 127
1,2-Dichlorobenzene	50.0	43.4		ug/L		87	77 - 124
1,3-Dichlorobenzene	50.0	44.8		ug/L		90	79 ₋ 123
1,4-Dichlorobenzene	50.0	44.1		ug/L		88	76 ₋ 124
Dichlorodifluoromethane	50.0	50.6		ug/L		101	41 - 165
1,1-Dichloroethane	50.0	49.4		ug/L		99	69 - 132
1,2-Dichloroethane	50.0	43.8		ug/L		88	75 - 120
1,1-Dichloroethene	50.0	50.7		ug/L		101	73 ₋ 134
1,2-Dichloropropane	50.0	46.3		ug/L		93	71 ₋ 126
Ethylbenzene	50.0	47.7		ug/L		95	78 ₋ 125
2-Hexanone	100	82.9		ug/L		83	52 ₋ 149
Isopropylbenzene	50.0	48.2		ug/L		96	72 - 129
Methyl acetate	50.0	48.9		ug/L		98	26 - 182
Methylcyclohexane	50.0	49.3		ug/L		99	72 - 133
Methylene Chloride	50.0	47.5		ug/L		95	79 ₋ 124
4-Methyl-2-pentanone	100	82.7		ug/L		83	51 ₋ 143
Methyl tert-butyl ether	100	101		ug/L		101	76 ₋ 126
Styrene	50.0	46.6		ug/L		93	75 ₋ 129
1,1,2,2-Tetrachloroethane	50.0	45.4		ug/L		91	71 _ 127
Tetrachloroethene	50.0	50.8		ug/L		102	77 ₋ 128
Toluene	50.0	46.0		ug/L		92	77 ₋ 125
trans-1,2-Dichloroethene	50.0	49.5		ug/L		99	78 - 130

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-334022/4

Matrix: Water Analysis Batch: 334022 Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
trans-1,3-Dichloropropene	50.0	53.0	-	ug/L		106	72 _ 127	
1,2,4-Trichlorobenzene	50.0	45.4		ug/L		91	67 _ 134	
1,1,1-Trichloroethane	50.0	52.8		ug/L		106	76 - 126	
1,1,2-Trichloroethane	50.0	45.3		ug/L		91	69 _ 127	
Trichloroethene	50.0	50.0		ug/L		100	80 - 120	
Trichlorofluoromethane	50.0	53.4		ug/L		107	66 - 144	
1,1,2-Trichloro-1,2,2-trifluoroetha	50.0	52.2		ug/L		104	72 _ 139	
ne								
Vinyl chloride	50.0	49.0		ug/L		98	58 - 141	
Xylenes, Total	150	142		ug/L		95	80 - 124	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	91		70 - 130
Dibromofluoromethane	102		70 - 130
Toluene-d8 (Surr)	92		70 - 130

Lab Sample ID: LCSD 680-334022/5

Matrix: Water

Analysis Batch: 334022

Client Sample ID: Lab	Control Sample Dup
	Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	100	87.3		ug/L		87	39 - 162	6	50
Benzene	50.0	45.7		ug/L		91	74 - 123	2	30
Bromodichloromethane	50.0	53.2		ug/L		106	72 - 129	2	30
Bromoform	50.0	54.7		ug/L		109	60 - 134	3	30
Bromomethane	50.0	62.5		ug/L		125	10 - 171	1	50
2-Butanone	100	77.2		ug/L		77	55 - 142	7	30
Carbon disulfide	50.0	45.7		ug/L		91	63 - 142	3	30
Carbon tetrachloride	50.0	57.6		ug/L		115	70 - 131	4	30
Chlorobenzene	50.0	47.2		ug/L		94	79 - 120	1	30
Chloroethane	50.0	50.8		ug/L		102	47 - 148	17	40
Chloroform	50.0	44.6		ug/L		89	76 - 128	15	30
Chloromethane	50.0	41.2		ug/L		82	47 - 151	13	30
cis-1,2-Dichloroethene	50.0	42.8		ug/L		86	78 - 127	10	30
cis-1,3-Dichloropropene	50.0	54.1		ug/L		108	73 - 128	3	30
Cyclohexane	50.0	47.6		ug/L		95	68 - 137	2	30
Dibromochloromethane	50.0	60.3		ug/L		121	63 - 134	2	50
1,2-Dibromo-3-Chloropropane	50.0	56.3		ug/L		113	57 - 126	1	50
1,2-Dibromoethane	50.0	49.3		ug/L		99	75 - 127	4	30
1,2-Dichlorobenzene	50.0	43.9		ug/L		88	77 - 124	1	30
1,3-Dichlorobenzene	50.0	44.6		ug/L		89	79 - 123	0	30
1,4-Dichlorobenzene	50.0	44.9		ug/L		90	76 - 124	2	30
Dichlorodifluoromethane	50.0	45.0		ug/L		90	41 - 165	12	50
1,1-Dichloroethane	50.0	44.2		ug/L		88	69 - 132	11	30
1,2-Dichloroethane	50.0	44.6		ug/L		89	75 - 120	2	30
1,1-Dichloroethene	50.0	46.3		ug/L		93	73 - 134	9	30
1,2-Dichloropropane	50.0	46.5		ug/L		93	71 - 126	1	30
Ethylbenzene	50.0	47.9		ug/L		96	78 - 125	0	30

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-334022/5

Matrix: Water

Analysis Batch: 334022

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-Hexanone	100	87.5		ug/L		88	52 - 149	5	30
Isopropylbenzene	50.0	49.3		ug/L		99	72 - 129	2	30
Methyl acetate	50.0	45.3		ug/L		91	26 - 182	7	30
Methylcyclohexane	50.0	50.1		ug/L		100	72 - 133	2	30
Methylene Chloride	50.0	42.3		ug/L		85	79 - 124	12	30
4-Methyl-2-pentanone	100	87.9		ug/L		88	51 - 143	6	30
Methyl tert-butyl ether	100	94.3		ug/L		94	76 - 126	7	30
Styrene	50.0	47.8		ug/L		96	75 - 129	3	30
1,1,2,2-Tetrachloroethane	50.0	46.5		ug/L		93	71 - 127	2	30
Tetrachloroethene	50.0	51.0		ug/L		102	77 - 128	0	30
Toluene	50.0	46.7		ug/L		93	77 - 125	2	30
trans-1,2-Dichloroethene	50.0	43.8		ug/L		88	78 - 130	12	30
trans-1,3-Dichloropropene	50.0	54.6		ug/L		109	72 - 127	3	50
1,2,4-Trichlorobenzene	50.0	46.6		ug/L		93	67 - 134	3	30
1,1,1-Trichloroethane	50.0	51.6		ug/L		103	76 - 126	2	30
1,1,2-Trichloroethane	50.0	46.7		ug/L		93	69 - 127	3	30
Trichloroethene	50.0	50.6		ug/L		101	80 - 120	1	30
Trichlorofluoromethane	50.0	47.9		ug/L		96	66 - 144	11	30
1,1,2-Trichloro-1,2,2-trifluoroetha	50.0	46.7		ug/L		93	72 - 139	11	30
ne									
Vinyl chloride	50.0	44.1		ug/L		88	58 - 141	11	30
Xylenes, Total	150	144		ug/L		96	80 - 124	1	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	93		70 - 130
Dibromofluoromethane	91		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333829/18-A

Matrix: Water

Analysis Batch: 334440

Client Sample ID: Method Blank
Prep Type: Total/NA

Prep Batch: 333829

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1
	10 10 10 10 10 10 10 10 10 10	Result Qualifier 10 U 10 U	10 U 10	10 U 10 10 U 10	10 U 10 ug/L	10 U 10 ug/L	10 U 10 ug/L 06/12/14 15:41	10 U 10 ug/L 06/12/14 15:41 06/16/14 16:51

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-333829/18-A

Matrix: Water

Analysis Batch: 334440

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 333829

ı		MB	MR	MD									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
	1-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1			
	2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1			
١	Naphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1			
	Phenanthrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1			
	Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:51	1			
ı													

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		38 - 130	06/12/14 15:4	06/16/14 16:51	1
Nitrobenzene-d5 (Surr)	96		39 - 130	06/12/14 15:4	06/16/14 16:51	1
Terphenyl-d14 (Surr)	112		10 - 143	06/12/14 15:4	06/16/14 16:51	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Lab Sample ID: LCS 680-333829/19-A

Analysis Batch: 334440							Prep Batch: 333829
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	100	81.9		ug/L		82	41 - 99
Acenaphthylene	100	38.0		ug/L		38	32 _ 118
Anthracene	100	76.0		ug/L		76	50 - 103
Benzo[a]anthracene	100	80.4		ug/L		80	53 - 109
Benzo[a]pyrene	100	62.8		ug/L		63	38 - 111
Benzo[b]fluoranthene	100	78.0		ug/L		78	53 - 108
Benzo[g,h,i]perylene	100	70.4		ug/L		70	42 - 114
Benzo[k]fluoranthene	100	71.2		ug/L		71	49 - 108
Chrysene	100	80.3		ug/L		80	54 ₋ 111
Dibenz(a,h)anthracene	100	80.5		ug/L		80	48 - 110
Fluoranthene	100	78.2		ug/L		78	48 - 111
Fluorene	100	82.9		ug/L		83	50 - 105
Indeno[1,2,3-cd]pyrene	100	83.8		ug/L		84	34 _ 115
1-Methylnaphthalene	100	64.2		ug/L		64	50 - 130
2-Methylnaphthalene	100	64.9		ug/L		65	32 - 92
Naphthalene	100	63.4		ug/L		63	29 _ 91
Phenanthrene	100	79.3		ug/L		79	52 - 108
Pyrene	100	69.8		ug/L		70	50 - 111

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	110		38 - 130
Nitrobenzene-d5 (Surr)	114		39 - 130
Terphenyl-d14 (Surr)	124		10 - 143

Lab Sample ID: LCSD 680-333829/20-A

Matrix: Water

Analysis Batch: 334440								Prep Batch: 333829				
		Sp	ike	LCSD	LCSD				%Rec.		RPD	
Analyte		Add	led	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Acenaphthene			100	86.2		ug/L		86	41 - 99	5	20	
Acenaphthylene			100	76.0	*	ug/L		76	32 - 118	67	20	
Anthracene			100	84.0		ug/L		84	50 - 103	10	20	

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Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-333829/20-A

Matrix: Water

Analysis Batch: 334440

Client Sample ID: Lab Control Sample Dup

Prep Type	e: Total/NA
Prep Bat	ch: 333829
%Rec.	RPD

/ indigoto Butom co i i ic										
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzo[a]anthracene	100	87.3		ug/L		87	53 - 109	8	40	
Benzo[a]pyrene	100	81.9		ug/L		82	38 - 111	26	40	
Benzo[b]fluoranthene	100	81.6		ug/L		82	53 - 108	5	50	
Benzo[g,h,i]perylene	100	92.8		ug/L		93	42 - 114	27	50	
Benzo[k]fluoranthene	100	85.3		ug/L		85	49 - 108	18	40	
Chrysene	100	84.4		ug/L		84	54 - 111	5	50	
Dibenz(a,h)anthracene	100	88.4		ug/L		88	48 - 110	9	40	
Fluoranthene	100	86.4		ug/L		86	48 - 111	10	40	
Fluorene	100	89.1		ug/L		89	50 - 105	7	20	
Indeno[1,2,3-cd]pyrene	100	92.6		ug/L		93	34 - 115	10	40	
1-Methylnaphthalene	100	68.6		ug/L		69	50 - 130	7	50	
2-Methylnaphthalene	100	67.9		ug/L		68	32 - 92	5	30	
Naphthalene	100	63.9		ug/L		64	29 - 91	1	40	
Phenanthrene	100	84.5		ug/L		84	52 - 108	6	40	
Pyrene	100	82.4		ug/L		82	50 - 111	17	50	

LCSD LCSD

MR MR

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	109		38 - 130
Nitrobenzene-d5 (Surr)	106		39 - 130
Terphenyl-d14 (Surr)	129		10 - 143

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-332912/1-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Method Blank

Prep Type: Total/NA **Prep Batch: 332912**

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:08	1
Chromium	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:08	1
Lead	10	U	10		ug/L		06/07/14 09:43	06/10/14 18:08	1
Nickel	40	U	40		ug/L		06/07/14 09:43	06/10/14 18:08	1
Zinc	20	U	20		ug/L		06/07/14 09:43	06/10/14 18:08	1

Lab Sample ID: LCS 680-332912/2-A

Matrix: Water

Analysis Batch: 333550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 332912

	Spike	LCS	LCS		%Rec.	
Analyte	Added	Result	Qualifier Unit	t D %Re	c Limits	
Arsenic	100	101	ug/L		75 - 125	
Chromium	100	97.4	ug/L	_	75 _ 125	
Lead	50.0	48.9	ug/L	_	8 75 - 125	
Nickel	100	97.9	ug/L	_	8 75 - 125	
Zinc	100	96.8	ug/L	_	75 _ 125	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 680-333618/1-A

Matrix: Water

Analysis Batch: 334039

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 333618

	MB	в мв									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	20	U	20		ug/L		06/11/14 11:17	06/12/14 20:54	1		
Chromium	10	U	10		ug/L		06/11/14 11:17	06/12/14 20:54	1		
Lead	10	U	10		ug/L		06/11/14 11:17	06/12/14 20:54	1		
Nickel	40	U	40		ug/L		06/11/14 11:17	06/12/14 20:54	1		
Zinc	20	U	20		ug/L		06/11/14 11:17	06/12/14 20:54	1		

Lab Sample ID: LCS 680-333618/2-A

Matrix: Water

Analysis Batch: 334039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 333618

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	99.3		ug/L		99	75 - 125	
Chromium	100	95.8		ug/L		96	75 - 125	
Lead	50.0	48.3		ug/L		97	75 - 125	
Nickel	100	94.0		ug/L		94	75 - 125	
Zinc	100	96.7		ug/L		97	75 - 125	

Lab Sample ID: 680-102049-3 MS

Matrix: Water

Analysis Batch: 334039

Client Sample ID: TMW-01_06052014

Prep Type: Total/NA

Prep Batch: 333618

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	95		100	206		ug/L		111	75 - 125	
Chromium	17		100	120		ug/L		103	75 - 125	
Lead	10	U	50.0	49.0		ug/L		98	75 - 125	
Nickel	40	U	100	132		ug/L		98	75 - 125	
Zinc	72		100	172		ua/L		100	75 ₋ 125	

Lab Sample ID: 680-102049-3 MSD

Matrix: Water

Analysis Batch: 334039

Client Sample ID: TMW-01_06052014

Prep Type: Total/NA

Prep Batch: 333618

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	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	95		100	208		ug/L		113	75 - 125	1	20
Chromium	17		100	121		ug/L		104	75 - 125	1	20
Lead	10	U	50.0	51.9		ug/L		104	75 - 125	6	20
Nickel	40	U	100	134		ug/L		100	75 - 125	1	20
Zinc	72		100	173		ug/L		101	75 - 125	1	20

Lab Sample ID: MB 680-332949/1-A

Matrix: Water

Analysis Batch: 334904

Client Sample ID: Method Blank **Prep Type: Total Recoverable**

Prep Batch: 332949

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/07/14 11:38	06/17/14 17:50	1
Chromium	10	U	10		ug/L		06/07/14 11:38	06/17/14 17:50	1
Lead	10	U	10		ug/L		06/07/14 11:38	06/17/14 17:50	1
Nickel	40	U	40		ug/L		06/07/14 11:38	06/17/14 17:50	1
Zinc	20	U	20		ug/L		06/07/14 11:38	06/17/14 17:50	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-332949/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 334904

Prep Batch: 332949

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	109		ug/L		109	75 - 125	
Chromium	100	108		ug/L		108	75 - 125	
Lead	50.0	54.4		ug/L		109	75 ₋ 125	
Nickel	100	108		ug/L		108	75 ₋ 125	
Zinc	100	108		ug/L		108	75 - 125	
_								

Client Sample ID: SW-01-HIGH_06052014 Lab Sample ID: 680-102049-15 MS **Matrix: Water Prep Type: Dissolved** Analysis Batch: 334904

Prep Batch: 332949

, ,	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	119		ug/L		119	75 - 125	
Chromium	10	U	100	104		ug/L		104	75 - 125	
Lead	10	U	50.0	55.5		ug/L		111	75 - 125	
Nickel	40	U	100	107		ug/L		100	75 - 125	
Zinc	20	U	100	108		ug/L		108	75 - 125	
<u> </u>										

Lab Sample ID: 680-102049-15 MSD Client Sample ID: SW-01-HIGH_06052014 **Matrix: Water Prep Type: Dissolved**

Analysis Batch: 334904									Batch: 3	: 332949	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	20	U	100	120		ug/L		120	75 - 125	1	20
Chromium	10	U	100	104		ug/L		104	75 - 125	0	20
Lead	10	U	50.0	52.6		ug/L		105	75 - 125	5	20
Nickel	40	U	100	106		ug/L		99	75 - 125	1	20
Zinc	20	U	100	106		ug/L		106	75 - 125	2	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-334026/3 Client Sample ID: Method Blank

Matrix: Water Analysis Batch: 334026

Prep Type: Total/NA

мв мв Analyte Result Qualifier RLRL Unit Prepared Analyzed Dil Fac Alkalinity 5.0 U 5.0 mg/L 06/12/14 21:07

Lab Sample ID: LCS 680-334026/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334026

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Alkalinity 250 254 80 - 120 mg/L 102

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 310.1	- Alkalinity	(Continued)
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Lab Sample ID: MB 680-334396/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334396

мв мв Result Qualifier RL RL Unit D Analyzed Dil Fac Analyte Prepared 5.0 06/15/14 21:23 Alkalinity 5.0 U mg/L

Lab Sample ID: LCS 680-334396/4 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334396

LCS LCS Spike %Rec. Added Analyte Result Qualifier Unit %Rec Limits Alkalinity 250 229 mg/L 92 80 - 120

Lab Sample ID: LCSD 680-334396/30 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334396

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit Alkalinity 250 242 mg/L

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-334251/51 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334251

MB MB Analyte Result Qualifier RL MDL Unit Analyzed Dil Fac Prepared 0.050 U 0.050 06/13/14 17:14 Ammonia mg/L

Lab Sample ID: LCS 680-334251/1 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 334251

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit %Rec 1.00 Ammonia 0.937 mg/L 94 90 - 110

Lab Sample ID: MB 680-334252/52 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 334252

мв мв RLAnalyte Result Qualifier MDL Unit D Prepared Analyzed Dil Fac 0.050 Ammonia 0.050 U mg/L 06/13/14 17:14

Lab Sample ID: LCS 680-334252/46 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 334252

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Ammonia 1.00 0.946 mg/L 95 90 - 110

Client Sample ID: Lab Control Sample

Client Sample ID: SW-03-LOW_06052014

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: SW-02-HIGH_06052014

Client Sample ID: SW-02-HIGH_06052014

Prep Type: Total/NA

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-332872/13 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 332872

мв мв

Result Qualifier RL Analyte MDL Unit D Analyzed Dil Fac Prepared 0.050 06/06/14 16:05 Nitrate as N 0.050 U mg/L

Lab Sample ID: LCS 680-332872/16

Matrix: Water

Analysis Batch: 332872

LCS LCS Spike %Rec. Added Analyte Result Qualifier Unit %Rec Limits Nitrate as N 0.500 0.543 mg/L 109 75 - 125

Lab Sample ID: 680-102049-2 DU

Matrix: Water

Analysis Batch: 332872

DU DU RPD Sample Sample Analyte Result Qualifier Result Qualifier Unit **RPD** Limit Nitrate as N 0.26 0.259 mg/L 30

Lab Sample ID: MB 680-332873/11

Matrix: Water

Analysis Batch: 332873

мв мв

Result Qualifier RL **MDL** Unit Dil Fac Analyte Prepared Analyzed Nitrate as N 0.050 0.050 mg/L 06/06/14 16:46

Lab Sample ID: LCS 680-332873/16

Matrix: Water

Analysis Batch: 332873

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit Limits %Rec Nitrate as N 0.500 108 0.539 mg/L 75 - 125

Lab Sample ID: 680-102049-14 MS

Matrix: Water

Analysis Batch: 332873

Sample Sample Spike MS MS %Rec. Result Qualifier Analyte Result Qualifier Added Unit %Rec Limits 0.500 96 Nitrate as N 0.37 0.847 mg/L 75 - 125

Lab Sample ID: 680-102049-14 MSD

Matrix: Water

Analysis Batch: 332873

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Nitrate as N 0.37 0.500 0.848 mg/L 96 75 - 125

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 334022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	8260B	_
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	8260B	
680-102049-3	TMW-01_06052014	Total/NA	Water	8260B	
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	8260B	
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	8260B	
680-102049-6	PDMW-26T_06052014	Total/NA	Water	8260B	
680-102049-7	MW-3R_06052014	Total/NA	Water	8260B	
680-102049-9	PDMW-10R_06052014	Total/NA	Water	8260B	
680-102049-11	PDMW-13P_06052014	Total/NA	Water	8260B	
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	8260B	
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	8260B	
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	8260B	
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	8260B	
680-102049-16	TRIPBLANK_06052014	Total/NA	Water	8260B	
LCS 680-334022/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-334022/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-334022/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 333829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	3520C	
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	3520C	
680-102049-3	TMW-01_06052014	Total/NA	Water	3520C	
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	3520C	
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	3520C	
680-102049-6	PDMW-26T_06052014	Total/NA	Water	3520C	
680-102049-7	MW-3R_06052014	Total/NA	Water	3520C	
680-102049-9	PDMW-10R_06052014	Total/NA	Water	3520C	
680-102049-11	PDMW-13P_06052014	Total/NA	Water	3520C	
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	3520C	
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	3520C	
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	3520C	
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	3520C	
LCS 680-333829/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-333829/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-333829/18-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 334440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	8270D	333829
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	8270D	333829
680-102049-3	TMW-01_06052014	Total/NA	Water	8270D	333829
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	8270D	333829
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	8270D	333829
680-102049-6	PDMW-26T_06052014	Total/NA	Water	8270D	333829
680-102049-7	MW-3R_06052014	Total/NA	Water	8270D	333829
680-102049-9	PDMW-10R_06052014	Total/NA	Water	8270D	333829
680-102049-11	PDMW-13P_06052014	Total/NA	Water	8270D	333829

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS Semi VOA (Continued)

Analysis Batch: 334440 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	8270D	333829
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	8270D	333829
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	8270D	333829
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	8270D	333829
LCS 680-333829/19-A	Lab Control Sample	Total/NA	Water	8270D	333829
LCSD 680-333829/20-A	Lab Control Sample Dup	Total/NA	Water	8270D	333829
MB 680-333829/18-A	Method Blank	Total/NA	Water	8270D	333829

Metals

Prep Batch: 332912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
680-102049-6	PDMW-26T_06052014	Total/NA	Water	3010A	<u> </u>
680-102049-7	MW-3R_06052014	Total/NA	Water	3010A	
680-102049-9	PDMW-10R_06052014	Total/NA	Water	3010A	
680-102049-11	PDMW-13P_06052014	Total/NA	Water	3010A	
LCS 680-332912/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-332912/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 332949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Dissolved	Water	3005A	
680-102049-2	SW-03-LOW_06052014	Dissolved	Water	3005A	
680-102049-4	SW-01-LOW_06052014	Dissolved	Water	3005A	
680-102049-5	SW-02-LOW_06052014	Dissolved	Water	3005A	
680-102049-12	SW-03-HIGH_06052014	Dissolved	Water	3005A	
680-102049-13	SW-04-HIGH_06052014	Dissolved	Water	3005A	
680-102049-14	SW-02-HIGH_06052014	Dissolved	Water	3005A	
680-102049-15	SW-01-HIGH_06052014	Dissolved	Water	3005A	
680-102049-15 MS	SW-01-HIGH_06052014	Dissolved	Water	3005A	
680-102049-15 MSD	SW-01-HIGH_06052014	Dissolved	Water	3005A	
LCS 680-332949/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 680-332949/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 333550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-6	PDMW-26T_06052014	Total/NA	Water	6010C	332912
680-102049-7	MW-3R_06052014	Total/NA	Water	6010C	332912
680-102049-9	PDMW-10R_06052014	Total/NA	Water	6010C	332912
680-102049-11	PDMW-13P_06052014	Total/NA	Water	6010C	332912
LCS 680-332912/2-A	Lab Control Sample	Total/NA	Water	6010C	332912
MB 680-332912/1-A	Method Blank	Total/NA	Water	6010C	332912

Prep Batch: 333618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-3	TMW-01_06052014	Total/NA	Water	3010A	
680-102049-3 MS	TMW-01_06052014	Total/NA	Water	3010A	
680-102049-3 MSD	TMW-01_06052014	Total/NA	Water	3010A	
LCS 680-333618/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-333618/1-A	Method Blank	Total/NA	Water	3010A	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Metals (Continued)

Analysis Batch: 334039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-3	TMW-01_06052014	Total/NA	Water	6010C	333618
680-102049-3 MS	TMW-01_06052014	Total/NA	Water	6010C	333618
680-102049-3 MSD	TMW-01_06052014	Total/NA	Water	6010C	333618
LCS 680-333618/2-A	Lab Control Sample	Total/NA	Water	6010C	333618
MB 680-333618/1-A	Method Blank	Total/NA	Water	6010C	333618

Analysis Batch: 334904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Dissolved	Water	6010C	332949
680-102049-2	SW-03-LOW_06052014	Dissolved	Water	6010C	332949
680-102049-4	SW-01-LOW_06052014	Dissolved	Water	6010C	332949
680-102049-5	SW-02-LOW_06052014	Dissolved	Water	6010C	332949
680-102049-12	SW-03-HIGH_06052014	Dissolved	Water	6010C	332949
680-102049-13	SW-04-HIGH_06052014	Dissolved	Water	6010C	332949
680-102049-14	SW-02-HIGH_06052014	Dissolved	Water	6010C	332949
680-102049-15	SW-01-HIGH_06052014	Dissolved	Water	6010C	332949
680-102049-15 MS	SW-01-HIGH_06052014	Dissolved	Water	6010C	332949
680-102049-15 MSD	SW-01-HIGH_06052014	Dissolved	Water	6010C	332949
LCS 680-332949/2-A	Lab Control Sample	Total Recoverable	Water	6010C	332949
MB 680-332949/1-A	Method Blank	Total Recoverable	Water	6010C	332949

General Chemistry

Analysis Batch: 332872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	353.2	_
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	353.2	
680-102049-2 DU	SW-03-LOW_06052014	Total/NA	Water	353.2	
680-102049-3	TMW-01_06052014	Total/NA	Water	353.2	
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	353.2	
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	353.2	
680-102049-6	PDMW-26T_06052014	Total/NA	Water	353.2	
680-102049-7	MW-3R_06052014	Total/NA	Water	353.2	
680-102049-8	PDMW-52_06052014	Total/NA	Water	353.2	
680-102049-9	PDMW-10R_06052014	Total/NA	Water	353.2	
680-102049-10	DUP-03_06052014	Total/NA	Water	353.2	
680-102049-11	PDMW-13P_06052014	Total/NA	Water	353.2	
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	353.2	
LCS 680-332872/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-332872/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 332873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	353.2	
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	353.2	
680-102049-14 MS	SW-02-HIGH_06052014	Total/NA	Water	353.2	
680-102049-14 MSD	SW-02-HIGH_06052014	Total/NA	Water	353.2	
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	353.2	
LCS 680-332873/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-332873/11	Method Blank	Total/NA	Water	353.2	

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

General Chemistry (Continued)

Analysis Batch: 334026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	310.1	
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	310.1	
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	310.1	
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	310.1	
LCS 680-334026/4	Lab Control Sample	Total/NA	Water	310.1	
MB 680-334026/3	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 334251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-1	SW-04-LOW_06052014	Total/NA	Water	350.1	
680-102049-2	SW-03-LOW_06052014	Total/NA	Water	350.1	
680-102049-3	TMW-01_06052014	Total/NA	Water	350.1	
680-102049-4	SW-01-LOW_06052014	Total/NA	Water	350.1	
680-102049-5	SW-02-LOW_06052014	Total/NA	Water	350.1	
680-102049-6	PDMW-26T_06052014	Total/NA	Water	350.1	
680-102049-7	MW-3R_06052014	Total/NA	Water	350.1	
680-102049-8	PDMW-52_06052014	Total/NA	Water	350.1	
LCS 680-334251/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-334251/51	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 334252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-9	PDMW-10R_06052014	Total/NA	Water	350.1	_
680-102049-10	DUP-03_06052014	Total/NA	Water	350.1	
680-102049-11	PDMW-13P_06052014	Total/NA	Water	350.1	
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	350.1	
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	350.1	
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	350.1	
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	350.1	
LCS 680-334252/46	Lab Control Sample	Total/NA	Water	350.1	
MB 680-334252/52	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 334396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102049-12	SW-03-HIGH_06052014	Total/NA	Water	310.1	
680-102049-13	SW-04-HIGH_06052014	Total/NA	Water	310.1	
680-102049-14	SW-02-HIGH_06052014	Total/NA	Water	310.1	
680-102049-15	SW-01-HIGH_06052014	Total/NA	Water	310.1	
LCS 680-334396/4	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-334396/30	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-334396/3	Method Blank	Total/NA	Water	310.1	

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: SW-04-LOW_06052014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-102049-1

Matrix: Water

Date Collected: 06/05/14 09:30 Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 14:31	MMT	TAL SAV
	Instrum	ent ID: CMSAC								
Total/NA	Prep	3520C			246 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	246 mL	0.5 mL	334440	06/16/14 15:38	LEG	TAL SAV
	Instrum	ent ID: CMSG								
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	334904	06/17/14 18:48	BCB	TAL SAV
	Instrum	ent ID: ICPF								
Total/NA	Analysis	310.1		1			334026	06/12/14 21:21	TAR	TAL SAV
	Instrum	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	334251	06/13/14 16:29	JME	TAL SAV
	Instrum	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:25	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Client Sample ID: SW-03-LOW_06052014 Lab Sample ID: 680-102049-2

Date Collected: 06/05/14 09:40

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAC		1	5 mL	5 mL	334022	06/13/14 14:55	MMT	TAL SAV
Total/NA	Prep	3520C			259.4 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSG		1	259.4 mL	0.5 mL	334440	06/16/14 16:03	LEG	TAL SAV
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	334904	06/17/14 18:53	BCB	TAL SAV
Total/NA	Analysis Instrume	310.1 ent ID: MANTECH		1			334026	06/12/14 21:27	TAR	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	334251	06/13/14 12:39	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332872	06/06/14 16:26	GRX	TAL SAV

Client Sample ID: TMW-01_06052014 Lab Sample ID: 680-102049-3

Date Collected: 06/05/14 09:55

Date Received: 06/06/14 08:35

Γ		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
P	гер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Ŧ	otal/NA	Analysis	8260B		2	5 mL	5 mL	334022	06/13/14 15:20	MMT	TAL SAV
		Instrumer	nt ID: CMSAC								
Т	otal/NA	Prep	3520C			256.4 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV

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Matrix: Water

Matrix: Water

6/20/2014

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: TMW-01_06052014 Lab Sample ID: 680-102049-3

Date Collected: 06/05/14 09:55 Matrix: Water Date Received: 06/06/14 08:35

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 8270D 256.4 mL 0.5 mL 334440 06/16/14 16:27 LEG TAL SAV Instrument ID: CMSG Total/NA Prep 3010A 50 mL 333618 06/11/14 11:17 SP TAL SAV 50 mL Total/NA 50 mL BCB TAL SAV Analysis 6010C 50 mL 334039 06/12/14 21:03 Instrument ID: ICPF Total/NA Analysis 350.1 2000 2 mL 2 mL 334251 06/13/14 17:23 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 250 2 mL 332872 06/06/14 16:32 GRX TAL SAV 2 mL Instrument ID: LACHAT2

Client Sample ID: SW-01-LOW_06052014 Lab Sample ID: 680-102049-4

Date Collected: 06/05/14 10:40 **Matrix: Water**

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAC		1	5 mL	5 mL	334022	06/13/14 15:44	MMT	TAL SAV
Total/NA	Prep	3520C			249.5 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSG		1	249.5 mL	0.5 mL	334440	06/16/14 17:16	LEG	TAL SAV
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	334904	06/17/14 18:57	BCB	TAL SAV
Total/NA	Analysis Instrume	310.1 ent ID: MANTECH		1			334026	06/12/14 21:42	TAR	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		2	2 mL	2 mL	334251	06/13/14 16:46	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332872	06/06/14 16:33	GRX	TAL SAV

Client Sample ID: SW-02-LOW_06052014 Lab Sample ID: 680-102049-5

Date Collected: 06/05/14 10:45 Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 16:08	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			258.9 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	258.9 mL	0.5 mL	334440	06/16/14 17:41	LEG	TAL SAV
	Instrume	ent ID: CMSG								
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	334904	06/17/14 19:02	BCB	TAL SAV
	Instrume	ent ID: ICPF								

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Matrix: Water

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-02-LOW_06052014 Lab Sample ID: 680-102049-5

Date Collected: 06/05/14 10:45 Matrix: Water

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1	_	-	334026	06/12/14 21:34	TAR	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis	350.1		2	2 mL	2 mL	334251	06/13/14 16:46	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:34	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-26T_06052014 Lab Sample ID: 680-102049-6

Date Collected: 06/05/14 11:35 Matrix: Water

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAC		1	5 mL	5 mL	334022	06/13/14 16:32	MMT	TAL SAV
Total/NA	Prep	3520C			255.9 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSG		1	255.9 mL	0.5 mL	334440	06/16/14 18:06	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 19:51	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		500	2 mL	2 mL	334251	06/13/14 16:37	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332872	06/06/14 16:38	GRX	TAL SAV

Client Sample ID: MW-3R_06052014 Lab Sample ID: 680-102049-7

Date Collected: 06/05/14 13:25 **Matrix: Water** Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAC		1	5 mL	5 mL	334022	06/13/14 16:57	MMT	TAL SAV
Total/NA	Prep	3520C			246.7 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSG		1	246.7 mL	0.5 mL	334440	06/16/14 18:30	LEG	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 19:55	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		5	2 mL	2 mL	334251	06/13/14 16:46	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332872	06/06/14 16:39	GRX	TAL SAV

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.9-1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-102049-8

Matrix: Water

Client Sample ID: PDMW-52_06052014 Date Collected: 06/05/14 12:50

Date Received: 06/06/14 08:35

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		10	2 mL	2 mL	334251	06/13/14 14:56	JME	TAL SAV
	Instrum	ent ID: KONELAE	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:40	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Date Collected: 06/05/14 13:05 Matrix: Water

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 17:21	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			254.2 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	254.2 mL	0.5 mL	334440	06/16/14 18:54	LEG	TAL SAV
	Instrume	ent ID: CMSG								
Total/NA	Prep	3010A			50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	333550	06/10/14 19:59	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		10	2 mL	2 mL	334252	06/13/14 15:06	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:42	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Date Collected: 06/05/14 00:00

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	334252	06/13/14 15:16	JME	TAL SAV
	Instrum	ent ID: KONELAE	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:43	GRX	TAL SAV
	Instrum	ent ID: LACHAT2	!							

Date Collected: 06/05/14 14:50 Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 17:45	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			257 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	257 mL	0.5 mL	334440	06/16/14 19:18	LEG	TAL SAV
	Instrume	ent ID: CMSG								

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6/20/2014

Matrix: Water

Matrix: Water

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-102049-11

Client Sample ID: PDMW-13P_06052014 Date Collected: 06/05/14 14:50

Matrix: Water

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	_		50 mL	50 mL	332912	06/07/14 09:43	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	333550	06/10/14 20:03	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		2	2 mL	2 mL	334252	06/13/14 17:11	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332872	06/06/14 16:44	GRX	TAL SAV

Client Sample ID: SW-03-HIGH_06052014 Lab Sample ID: 680-102049-12

Matrix: Water Date Collected: 06/05/14 14:25

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 18:10	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			257.6 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	257.6 mL	0.5 mL	334440	06/16/14 19:42	LEG	TAL SAV
	Instrume	ent ID: CMSG								
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	334904	06/17/14 19:07	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	310.1		1			334396	06/15/14 22:12	LBH	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	334252	06/13/14 12:21	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	332872	06/06/14 16:45	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: SW-04-HIGH_06052014

Lab Sample ID: 680-102049-13 Date Collected: 06/05/14 14:45 **Matrix: Water**

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 18:34	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			242.8 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	242.8 mL	0.5 mL	334440	06/16/14 20:07	LEG	TAL SAV
	Instrume	ent ID: CMSG								
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	334904	06/17/14 19:11	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	310.1		1			334396	06/15/14 22:06	LBH	TAL SAV
	Instrume	ent ID: MANTECH								

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Lab Sample ID: 680-102049-13

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-04-HIGH_06052014

Date Collected: 06/05/14 14:45 Matrix: Water

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	2 mL	2 mL	334252	06/13/14 12:21	JME	TAL SAV
	Instrume	ent ID: KONELAE	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	332873	06/06/14 17:10	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Lab Sample ID: 680-102049-14 Client Sample ID: SW-02-HIGH_06052014

Date Collected: 06/05/14 15:15 **Matrix: Water**

Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B ent ID: CMSAC		1	5 mL	5 mL	334022	06/13/14 18:58	MMT	TAL SAV
Total/NA	Prep	3520C			262.3 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSG		1	262.3 mL	0.5 mL	334440	06/16/14 20:30	LEG	TAL SAV
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	334904	06/17/14 19:16	BCB	TAL SAV
Total/NA	Analysis Instrume	310.1 ent ID: MANTECH		1			334396	06/16/14 00:06	LBH	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	334252	06/13/14 12:21	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	332873	06/06/14 16:54	GRX	TAL SAV

Client Sample ID: SW-01-HIGH_06052014 Lab Sample ID: 680-102049-15

Date Collected: 06/05/14 15:30 **Matrix: Water** Date Received: 06/06/14 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	334022	06/13/14 19:23	MMT	TAL SAV
	Instrume	ent ID: CMSAC								
Total/NA	Prep	3520C			244.7 mL	0.5 mL	333829	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	244.7 mL	0.5 mL	334440	06/16/14 20:55	LEG	TAL SAV
	Instrume	ent ID: CMSG								
Dissolved	Prep	3005A			50 mL	50 mL	332949	06/07/14 11:38	BJB	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	334904	06/17/14 19:21	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	310.1		1			334396	06/16/14 00:13	LBH	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	334252	06/13/14 12:21	JME	TAL SAV
	Instrume	ent ID: KONELAB1								

TestAmerica Savannah

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-01-HIGH_06052014

TestAmerica Job ID: 680-102049-1

Lab Sample ID: 680-102049-15

Matrix: Water

Date Collected: 06/05/14 15:30 Date Received: 06/06/14 08:35

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 353.2 2 mL 2 mL 332873 06/06/14 17:11 GRX TAL SAV

Instrument ID: LACHAT2

Client Sample ID: TRIPBLANK_06052014

Lab Sample ID: 680-102049-16 Date Collected: 06/05/14 00:00 Matrix: Water

Date Received: 06/06/14 08:35

Dil Batch Batch Initial Final Batch Prepared Prep Type Type Method Factor Amount Amount Number or Analyzed Run Analyst Lab Total/NA Analysis 8260B 5 mL 5 mL 334022 06/13/14 12:56 MMT TAL SAV Instrument ID: CMSAC

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14 *
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14 *
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	803	06-30-14 *
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-14 *
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
lowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	02-28-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14 *
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-14 *
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14 *
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-14 *
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia DEP	State Program	3	94	06-30-14 *
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14 *

6/20/2014

TestAmerica Savannah

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 $[\]ensuremath{^{\star}}$ Certification renewal pending - certification considered valid.

Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102049-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# 200	SHIPMENT INFORMATION	Shipment Method: Lab Courter		Project 6-4300-5240	PM: Pat Hamison	But, havison@ once com	Pre=3658-13 Fit		NALYSIS	week to the contract of the co)	4)	i N	68	1/k	16	9	Chain	of Cu	ustod	, ××	× ×						Comments & Special Analytical Requirements:	3 7 6 6 5	0.8(5.2/5.4	Custody Seal # LAB Log Number	ILL YES LONG # # 1AL-6006 (0509)
	:: n	0, Tampa, FL 33634 P: 813-885-7427 F: 813-885-7049 isacola, FL 32514 P: 850-474-1001 F: 850-478-2671	☐ TestAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P. 716-961-2600 ③F. 716-961-7991 ☐ TestAmerica Chicago _™ 2417 Bond Street, University Park, IL 60466 P. 708-534-5200 ☐F. 708-534-5211	CONSULTANT INFORMATION	Dany: Amec E'8I	Address; 3500 F2211 Rd St. 100	City, State Zip: Shruffle, TH 3721	id Note ** 3 3,0 0 1 2	iosulfate Pres. METHODS FOR ANALYSIS	Code	된 TIO = Figure	N	אלמ	700	メラシンの		or Grab Code A A C C	NXXXX MS 9 W	X X X X M5 9 (5)	N 6 6W X X X X X	(n) 6 Stul × X X X	3 6 5W× X XX	6 GW X X X X	X X X X X X X X X X X X X X X X X X X	X X Z S	6 6W×XXXX	× × 39 9 7	Date/fine: 14 08,0	Date/Time: k	Date/Time:	3	I LIY8S LINO INVOICE MUST BE SUBMITTED
LABORATORY INFORMATION	TestAmerica Savannah - 5102 LaRoche Avenue, Sav:	☐ TestAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 ☐ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001	☐ TestAmerica Buffalo : 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 《F: 716-961 ☐ TestAmerica Chicago⇒ 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 《F: 708-534-5211		Proj. City: Savonnah Company:		LWON 1989 SMR City 8	Codes: 3 = Sulfu		1 = Hydrochloric Acid 5 = Sodium Hydroxide 2 = Nitric Acid		ater		SW = Surface Water SUL = Other Solid	A-tametamenta-estatement estatement	Sample Collection Filtered	Date Time Sampler Y or N	(1) K S S N (1) N (1)	(1) K SCHO H 10)	6 15/14 OGSS P6 A	6/5/14 1040 55 10	615114 NO45 SF YW	61814 1135 PG N	6 15 14 1325 JJ N	615114 1250 SF N	N 20 2051 1913 1	7 51519	of O Received By: My	AS S Received By:	Received By:	Lab Remarks:	
	CHAIN OF	THE ANCED DE		CSXT PROJECT INFORMATION	CSXT Project Number: 9415575	CSXT Project Name: Hutchings TSC	`\			2 Day Rush X Standard 14 Days		ndard (Level II)	Level III EDD Required, Format:	LJ Level IV	SAMPLE INFORMATION		Sample Identification Number & Type	01 plazsogo-MOT-HO-MS	01 H1025090-M07-80-MS	p 41025090-10-WMT	01 h1025090-M07-10-M5	SW-02-10W-06052014 10	PDMW-26T_06052014 9	MW-38_06052014 9	PDMW-52-06052014 9	PDMW-108_06052014 9		Refinquished By: Date/Time:	Relinquished B.	Relinquished By:	Received By Laboratory:	ORIGINAL – RETURN TO LABORATORY WITH SAMPLES

# COC #	SHIPMENT INFORMATION	Shipment Method: Lab Courter	Shipment Tracking No:	Project # 6 -4300-5240	PM: Pat Hanson	Email: pat, harrison@omec.com	Sept.	<u>م</u> لا	INALYSIS	Vą	L 111	ができていた。	Property of the state of the st	1/2 55 50 1/2 1/2	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	T T		X	<u>×</u> ×	× ×	X ×				Comment:	5.8/5.2/5.4	640701-089	stody Seal #	INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC TAL-6006 (0509)
D-012-254-7858. F-012-359-0165	Section - 4101 Shuffel Drive NW, North Canton, OH 4720 P. 330-497-9396 P. 330-497-0772	P: 813-885-7427 F: 813-885-7049 P: 850-474-1001 F: 850-478-2671	8 P: 716-691-2600 F: 716-961-7991 708-534-5200 F: 708-534-5211	RMATION	8.T	41 Rd Stc 100	372(1	Note - 3 30 0 1 2	Pres. METHODS FOR ANALYSIS	Code	10	0 <u>)</u>	201	T WHY CONT			X X X X M	XXXXMS	XXXX	××××35	XXXXXXX	X mo			Calle 4 08.00	Date/Time:	Date/Time:	LAB USE: Custody Intact	I L Yes L NO INVOICE MUST BE SUBMITTED
Aumio Sayanah GA 3404	31 Shuffel Drive NW, North Canton, OH 44	Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P. 813-885-7427 F. 813-885-7049 Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P. 850-474-1001 F. 850-478-2671	Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 F: 716-961 Chicago <-2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211	CONSULTANT INFORMATION	で Company Company に の の の の の の の の の の の の の		MR City, State, Zip: The Th	Suff	_	5 = Sodium Hydroxide Co	SO = Soil LIQ = Liquid	de	OI = OII SOL = Other Solid		Filtered Type	Sampler Y or N Comp	PC N G	SF 製加 C	2 (3) (5)	SK 7(1) G	J (1) L	9 1 1	e y e de	:	Ch. Le	y:	у:	(5:	TO THE RESIDENCE OF THE CONTROLLED THE RESIDENCE OF THE PROPERTY OF THE PROPER
LABORATORY INFORMATION	TestAmerica North Canton - 410	☐ TestAmerica Tampa - 6712 Benj ☐ TestAmerica Pensacola - 3355 N	☐ TestAmerica Buffalo - 10 Hazely ☐ TestAmerica Chicago = 2417 Bo	Proj. State (State of Origin)	Proj. City: Savennah	1 -	ENWON: 35915MR	Preservati	0 = No Preservatives	1 = Hydrochloric Acid	Matrix Codes:	GW = Groundwater	WW = Waste Water		rs Sample Collection	Da	6/5/2014 1450	25H1 HOUS 19	6/5/2014 1445	4 15 2014	6 15/2014 1530	- hoods19			Received By	14 58 > Received By	Received By:	(M egg) Lab Remarks:	Ì
	CHAIN OF	CUSTODY		ATION	15575	Hutchingon Isbar	Ross		Specify # Days	Standard 14 Days	Other Deliv:		EDD Required, Format:		Containers	fication Number & Type		1_06252014 10	H_060572014 10	4_06052014 1 0	Q1 hlezsong")	06052014 2			114 0800 Date/Time:	Sate frime:	Date/Time:	Date/Time OC OF W	RATORY WITH SAMPLES
	V	NOTTATAOCHO	IKAINSI OKIANI	CSXT PROJECT INFORMATION	CSXT Project Number: QLSST	CSXT Project Name:	CSXT Contact: SQM	Turnaround Time:	1 Day Rush	2 Day Rush	Deliverables:	CSXT Standard (Level II)	Level III	SAMPLE INFORMATION		Sample Identification	PDMW-13P-06052014	40-03-HIGH_06520H	H1675090-H91H-H0-M5	SW-02-H16H_06052014	HG5090-H91H-10-MS	TRIPBLANK-C			Relinduished By:	Helinquished By N	Relinquished By:	Received By Laborator	ORIGINAL – RETURN TO LABORATORY WITH SAMPLES

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-102049-1

Login Number: 102049 List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	COC mistakenly reads 10 bottles each for -8 and -10
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-102080-2

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Subal Horey

Authorized for release by: 6/24/2014 6:05:27 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

·····LINKS ·······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102080-2

Job ID: 680-102080-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-102080-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/06/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.0 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples ERB-03-060620214 (680-102080-5) and trip blank_-03-060620214 (680-102080-6) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Sample ERB-03-060620214 (680-102080-5) was analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Acenaphthylene exceeded the RPD limit for LCSD 680-333823/5-A. Refer to the QC report for details.

METALS (ICP)

Sample ERB-03-060620214 (680-102080-5) was analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

AMMONIA

Samples PDMW-49_06062014 (680-102080-3), PDMW-51_06062014 (680-102080-4) and ERB-03-060620214 (680-102080-5) were analyzed for ammonia in accordance with EPA Method 350.1.

Sample PDMW-51_06062014 (680-102080-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-49_06062014 (680-102080-3), PDMW-51_06062014 (680-102080-4) and ERB-03-060620214 (680-102080-5) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 06/10/2014 and 06/11/2014.

Method(s) 353.2: Nitrate has a 48-hour hold time. The following sample(s) was analyzed outside hold time due to laboratory error: PDMW-51_06062014 (680-102080-4), ERB-03-06062014 (680-102080-5), PDMW-49_06062014 (680-102080-3).

Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102080-2

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Ū Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier **Qualifier Description** U Indicates the analyte was analyzed for but not detected. RPD of the LCS and LCSD exceeds the control limits

Metals

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier **Qualifier Description** Н Sample was prepped or analyzed beyond the specified holding time

Indicates the analyte was analyzed for but not detected.

Glossary

U

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dilution Factor Dil Fac

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DL, RA, RE, IN

DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

QC **Quality Control RER** Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TFF TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Savannah

6/24/2014

Sample Summary

Matrix

Water

Water

Water

Water

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID

PDMW-49_06062014

PDMW-51_06062014

ERB-03-060620214

trip blank_-03-060620214

Lab Sample ID

680-102080-3

680-102080-4

680-102080-5

680-102080-6

TestAmerica Job ID: 680-102080-2

Collected	Received
06/06/14 10:25	06/06/14 12:45
06/06/14 10:46	06/06/14 12:45

06/06/14 10:45

06/06/14 00:00

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06/06/14 12:45

06/06/14 12:45

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Client Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-49_06062014

TestAmerica Job ID: 680-102080-2

Lab Sample ID: 680-102080-3

Matrix: Water

Date Collected: 06/06/14 10:25 Date Received: 06/06/14 12:45

General Chemistry Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 0.42 0.050 mg/L 06/13/14 12:31 Ammonia Nitrate as N 0.050 UH 0.050 06/11/14 17:26 mg/L

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Client Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-51_06062014

TestAmerica Job ID: 680-102080-2

Lab Sample ID: 680-102080-4

Matrix: Water

Date Collected: 06/06/14 10:46 Date Received: 06/06/14 12:45

	General Chemistry									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Ammonia	7.0		0.25		mg/L			06/13/14 16:46	5
Į	Nitrate as N	0.050	UH	0.050		mg/L			06/10/14 16:24	1

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Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: ERB-03-060620214 Lab Sample ID: 680-102080-5

Date Collected: 06/06/14 10:45 Matrix: Water

Date Received: 06/06/14 12:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 18:04	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 18:04	1
Toluene	1.0	U	1.0		ug/L			06/11/14 18:04	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		70 - 130			-		06/11/14 18:04	1
Dibromofluoromethane	93		70 - 130					06/11/14 18:04	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 18:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Acenaphthylene	9.7	U *	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Chrysene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Fluoranthene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Fluorene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
1-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
2-Methylnaphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Naphthalene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Phenanthrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Pyrene	9.7	U	9.7		ug/L		06/12/14 15:41	06/17/14 11:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		38 - 130				06/12/14 15:41	06/17/14 11:26	1
Nitrobenzene-d5 (Surr)	83		39 - 130				06/12/14 15:41	06/17/14 11:26	1

Terphenyl-d14 (Surr)	111		10 - 143				06/12/14 15:41	06/17/14 11:26	1
Method: 6010C - Metals (ICP)						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/11/14 11:17	06/12/14 21:43	1
Chromium	10	U	10		ug/L		06/11/14 11:17	06/12/14 21:43	1
Lead	10	U	10		ug/L		06/11/14 11:17	06/12/14 21:43	1
Nickel	40	U	40		ug/L		06/11/14 11:17	06/12/14 21:43	1
Zinc -	20	U	20		ug/L		06/11/14 11:17	06/12/14 21:43	1
General Chemistry									
Analyte	Result	Qualifier	RI	MDI	Unit	n	Prenared	Δnalvzed	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.050		mg/L			06/13/14 12:31	1
Nitrate as N	0.14	H	0.050		mg/L			06/10/14 16:16	1

TestAmerica Savannah

Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.

TestAmerica Job ID: 680-102080-2

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: trip blank_-03-060620214

Lab Sample ID: 680-102080-6

Matrix: Water

Date Collected: 06/06/14 00:00 Date Received: 06/06/14 12:45

Method: 8260B - Volatile Organ	ic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 12:39	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 12:39	1
Toluene	1.0	U	1.0		ug/L			06/11/14 12:39	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 12:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		70 - 130			-		06/11/14 12:39	1
Dibromofluoromethane	98		70 - 130					06/11/14 12:39	1
Toluene-d8 (Surr)	102		70 - 130					06/11/14 12:39	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333526/8

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			06/11/14 11:42	1
Ethylbenzene	1.0	U	1.0		ug/L			06/11/14 11:42	1
Toluene	1.0	U	1.0		ug/L			06/11/14 11:42	1
Xylenes, Total	2.0	U	2.0		ug/L			06/11/14 11:42	1

MB MB Limits Surrogate %Recovery Qualifier Prepared Analyzed Dil Fac 70 - 130 4-Bromofluorobenzene 96 06/11/14 11:42 Dibromofluoromethane 101 70 - 130 06/11/14 11:42 Toluene-d8 (Surr) 70 - 130 06/11/14 11:42 104

Lab Sample ID: LCS 680-333526/4

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	50.0	51.3		ug/L		103	74 - 123
Ethylbenzene	50.0	49.2		ug/L		98	78 - 125
Toluene	50.0	50.9		ug/L		102	77 - 125
Xylenes, Total	150	145		ug/L		96	80 - 124

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 96 70 - 130 Dibromofluoromethane 108 70 - 130 Toluene-d8 (Surr) 103 70 - 130

Lab Sample ID: LCSD 680-333526/6

Matrix: Water

Analysis Batch: 333526

Client Sample ID: Lab	Control Sample Dup
	Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50.0	49.1		ug/L		98	74 - 123	4	30
Ethylbenzene	50.0	46.6		ug/L		93	78 ₋ 125	6	30
Toluene	50.0	47.0		ug/L		94	77 - 125	8	30
Xylenes, Total	150	140		ug/L		93	80 - 124	3	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	93		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8 (Surr)	97		70 - 130

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6/24/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-333823/3-A

Matrix: Water

Analysis Batch: 334386

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 333823

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Acenaphthylene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Benzo[a]anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Benzo[a]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Benzo[b]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Benzo[g,h,i]perylene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Benzo[k]fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Chrysene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Dibenz(a,h)anthracene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Fluoranthene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Fluorene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
1-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
2-Methylnaphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Naphthalene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Phenanthrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	
Pyrene	10	U	10		ug/L		06/12/14 15:41	06/16/14 16:41	1	

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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	100		38 - 130	06/12/14 15:41	06/16/14 16:41	1
Nitrobenzene-d5 (Surr)	107		39 - 130	06/12/14 15:41	06/16/14 16:41	1
Terphenvl-d14 (Surr)	128		10 - 143	06/12/14 15:41	06/16/14 16:41	1

Lab Sample ID: LCS 680-333823/4-A

Matrix: Water

Analysis Batch: 334386

Client	Sample	ID:	l ah	Control	Sample
CHEIL	Sample	ID.	Lab	COILLIO	Sample

Prep Type: Total/NA

Prep Batch: 333823

Analysis balcii. 334300							Prep ball	ii. 333023
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	100	66.7		ug/L		67	41 - 99	
Acenaphthylene	100	55.0		ug/L		55	32 _ 118	
Anthracene	100	76.3		ug/L		76	50 - 103	
Benzo[a]anthracene	100	78.3		ug/L		78	53 _ 109	
Benzo[a]pyrene	100	72.7		ug/L		73	38 _ 111	
Benzo[b]fluoranthene	100	86.3		ug/L		86	53 _ 108	
Benzo[g,h,i]perylene	100	77.5		ug/L		77	42 _ 114	
Benzo[k]fluoranthene	100	73.8		ug/L		74	49 - 108	
Chrysene	100	78.1		ug/L		78	54 ₋ 111	
Dibenz(a,h)anthracene	100	85.3		ug/L		85	48 - 110	
Fluoranthene	100	80.7		ug/L		81	48 - 111	
Fluorene	100	75.8		ug/L		76	50 ₋ 105	
Indeno[1,2,3-cd]pyrene	100	82.9		ug/L		83	34 - 115	
1-Methylnaphthalene	100	63.9		ug/L		64	50 - 130	
2-Methylnaphthalene	100	62.8		ug/L		63	32 - 92	
Naphthalene	100	63.5		ug/L		64	29 - 91	
Phenanthrene	100	74.8		ug/L		75	52 - 108	
Pyrene	100	74.3		ug/L		74	50 - 111	

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6/24/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-333823/4-A

Lab Sample ID: LCSD 680-333823/5-A

Matrix: Water

Analysis Batch: 334386

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 333823

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	98		38 - 130
Nitrobenzene-d5 (Surr)	102		39 - 130
Terphenyl-d14 (Surr)	116		10 - 143

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 333823

Matrix: Water

Analysis Batch: 334386

Analysis Baton: 00-1000							i rop Baton. c		00020
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	100	63.9		ug/L		64	41 - 99	4	20
Acenaphthylene	100	38.8	*	ug/L		39	32 _ 118	34	20
Anthracene	100	78.7		ug/L		79	50 - 103	3	20
Benzo[a]anthracene	100	83.9		ug/L		84	53 - 109	7	40
Benzo[a]pyrene	100	71.8		ug/L		72	38 _ 111	1	40
Benzo[b]fluoranthene	100	89.6		ug/L		90	53 - 108	4	50
Benzo[g,h,i]perylene	100	78.3		ug/L		78	42 - 114	1	50
Benzo[k]fluoranthene	100	70.7		ug/L		71	49 - 108	4	40
Chrysene	100	81.3		ug/L		81	54 - 111	4	50
Dibenz(a,h)anthracene	100	85.2		ug/L		85	48 - 110	0	40
Fluoranthene	100	85.2		ug/L		85	48 - 111	6	40
Fluorene	100	78.5		ug/L		79	50 ₋ 105	3	20
Indeno[1,2,3-cd]pyrene	100	86.7		ug/L		87	34 - 115	5	40
1-Methylnaphthalene	100	63.2		ug/L		63	50 - 130	1	50
2-Methylnaphthalene	100	61.2		ug/L		61	32 - 92	2	30
Naphthalene	100	60.5		ug/L		61	29 - 91	5	40
Phenanthrene	100	77.9		ug/L		78	52 - 108	4	40
Pyrene	100	76.9		ug/L		77	50 - 111	3	50

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	90		38 - 130
Nitrobenzene-d5 (Surr)	97		39 - 130
Terphenyl-d14 (Surr)	120		10 - 143

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-333618/1-A

Matrix: Water

Analysis Batch: 334039

Client Sample ID: Method Blank
Prep Type: Total/NA

Prep Batch: 333618

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		06/11/14 11:17	06/12/14 20:54	1
Chromium	10	U	10		ug/L		06/11/14 11:17	06/12/14 20:54	1
Lead	10	U	10		ug/L		06/11/14 11:17	06/12/14 20:54	1
Nickel	40	U	40		ug/L		06/11/14 11:17	06/12/14 20:54	1
Zinc	20	U	20		ug/L		06/11/14 11:17	06/12/14 20:54	1

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75 - 125

75 - 125

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-333618/2-A	ab Sample ID: LCS 680-333618/2-A CI					Client Sample ID: Lab Control Sample		
Matrix: Water							Prep Typ	e: Total/NA
Analysis Batch: 334039							Prep Ba	tch: 333618
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	99.3		ug/L		99	75 _ 125	
Chromium	100	95.8		ug/L		96	75 ₋ 125	
Lead	50.0	48.3		ug/L		97	75 _ 125	

94.0

96.7

ug/L

ug/L

100

100

Method: 350.1 - Nitrogen, Ammonia

Nickel

Zinc

Lab Sample ID: MB 680-334252/52 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 334252 мв мв Result Qualifier RL MDL Unit Analyte D Prepared Analyzed Dil Fac 06/13/14 17:14 Ammonia 0.050 U 0.050 mg/L

Lab Sample ID: LCS 680-334252/46 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 334252 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Ammonia 1.00 0.946 90 - 110 mg/L

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-333489/11 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 333489 MR MR

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 06/10/14 16:11 mg/L

Lab Sample ID: LCS 680-333489/14 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333489

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	 	0.500	0.541		mg/L		108	75 - 125	

Lab Sample ID: LLCS 680-333489/13 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333489

	Spike	LLCS	LLCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.0500	0.0598		mg/L	_	120	50 - 150	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-102080-5 MS Client Sample ID: ERB-03-060620214 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333489

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier Limits Unit D %Rec Nitrate as N 0.500 107 75 - 125 0.14 H 0.671 mg/L

Lab Sample ID: 680-102080-5 MSD Client Sample ID: ERB-03-060620214 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333489

Sample Sample MSD MSD %Rec. RPD Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Nitrate as N 0.14 H 0.500 0.665 mg/L 106 75 - 125

Lab Sample ID: MB 680-333748/12 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333748

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 06/11/14 17:05 mg/L

Lab Sample ID: LCS 680-333748/11 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 333748

Spike LCS LCS %Rec. Analyte Added Result Qualifier Limits Unit %Rec Nitrate as N 0.500 0.544 109 mg/L 75 - 125

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 333526

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
ERB-03-060620214	Total/NA	Water	8260B	
trip blank03-060620214	Total/NA	Water	8260B	
Lab Control Sample	Total/NA	Water	8260B	
Lab Control Sample Dup	Total/NA	Water	8260B	
Method Blank	Total/NA	Water	8260B	
-	ERB-03-060620214 trip blank03-060620214 Lab Control Sample Lab Control Sample Dup	ERB-03-060620214 Total/NA trip blank03-060620214 Total/NA Lab Control Sample Total/NA Lab Control Sample Dup Total/NA	ERB-03-060620214 Total/NA Water trip blank03-060620214 Total/NA Water Lab Control Sample Total/NA Water Lab Control Sample Dup Total/NA Water	ERB-03-060620214 Total/NA Water 8260B trip blank03-060620214 Total/NA Water 8260B Lab Control Sample Total/NA Water 8260B Lab Control Sample Dup Total/NA Water 8260B

GC/MS Semi VOA

Prep Batch: 333823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-5	ERB-03-060620214	Total/NA	Water	3520C	
LCS 680-333823/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-333823/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-333823/3-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 334386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-333823/4-A	Lab Control Sample	Total/NA	Water	8270D	333823
LCSD 680-333823/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	333823
MB 680-333823/3-A	Method Blank	Total/NA	Water	8270D	333823

Analysis Batch: 334608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-5	ERB-03-060620214	Total/NA	Water	8270D	333823

Metals

Prep Batch: 333618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-5	ERB-03-060620214	Total/NA	Water	3010A	
LCS 680-333618/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-333618/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 334039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-5	ERB-03-060620214	Total/NA	Water	6010C	333618
LCS 680-333618/2-A	Lab Control Sample	Total/NA	Water	6010C	333618
MB 680-333618/1-A	Method Blank	Total/NA	Water	6010C	333618

General Chemistry

Analysis Batch: 333489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-4	PDMW-51_06062014	Total/NA	Water	353.2	
680-102080-5	ERB-03-060620214	Total/NA	Water	353.2	
680-102080-5 MS	ERB-03-060620214	Total/NA	Water	353.2	
680-102080-5 MSD	ERB-03-060620214	Total/NA	Water	353.2	
LCS 680-333489/14	Lab Control Sample	Total/NA	Water	353.2	
LLCS 680-333489/13	Lab Control Sample	Total/NA	Water	353.2	
MB 680-333489/11	Method Blank	Total/NA	Water	353.2	

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102080-2

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General Chemistry (Continued)

Analysis Batch: 333748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-3	PDMW-49_06062014	Total/NA	Water	353.2	
LCS 680-333748/11	Lab Control Sample	Total/NA	Water	353.2	
MB 680-333748/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 334252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102080-3	PDMW-49_06062014	Total/NA	Water	350.1	
680-102080-4	PDMW-51_06062014	Total/NA	Water	350.1	
680-102080-5	ERB-03-060620214	Total/NA	Water	350.1	
LCS 680-334252/46	Lab Control Sample	Total/NA	Water	350.1	
MB 680-334252/52	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-102080-3

Client Sample ID: PDMW-49_06062014 Date Collected: 06/06/14 10:25

Date Received: 06/06/14 12:45

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	2 mL	2 mL	334252	06/13/14 12:31	JME	TAL SAV
	Instrume	ent ID: KONELAB	1							
Total/NA	Analysis	353.2		1	2 mL	2 mL	333748	06/11/14 17:26	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-51_06062014

Lab Sample ID: 680-102080-4

Matrix: Water

Date Collected: 06/06/14 10:46 Date Received: 06/06/14 12:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		5	2 mL	2 mL	334252	06/13/14 16:46	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	333489	06/10/14 16:24	GRX	TAL SAV

Client Sample ID: ERB-03-060620214

Lab Sample ID: 680-102080-5

Matrix: Water

Date Collected: 06/06/14 10:45 Date Received: 06/06/14 12:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	333526	06/11/14 18:04	CAR	TAL SAV
	Instrume	ent ID: CMSAD								
Total/NA	Prep	3520C			256.9 mL	0.5 mL	333823	06/12/14 15:41	RBS	TAL SAV
Total/NA	Analysis	8270D		1	256.9 mL	0.5 mL	334608	06/17/14 11:26	SMC	TAL SAV
	Instrume	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	333618	06/11/14 11:17	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	334039	06/12/14 21:43	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		1	2 mL	2 mL	334252	06/13/14 12:31	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	333489	06/10/14 16:16	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: trip blank_-03-060620214

Lab Sample ID: 680-102080-6

Matrix: Water

Date Collected: 06/06/14 00:00 Date Received: 06/06/14 12:45

Batch Batch Dil Initial Final Batch Prepared Method Run or Analyzed Prep Type Type Factor Amount Amount Number Analyst Lab Total/NA Analysis 8260B 5 mL 5 mL 333526 06/11/14 12:39 CAR TAL SAV Instrument ID: CMSAD

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102080-2

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-14 *

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 $[\]ensuremath{^{\star}}$ Certification renewal pending - certification considered valid.

Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-102080-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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	ATION	300de		0-4300-524D	BON	pat. harrison@omec.com	A STANDARD S	COMMENTS LABUSE			ewo e														Comments & Special Analytical Requirements:			LAB Log Number
3	SHIPMENT INFORMATION	Shipment Method: Drop	Shipment Tracking No:	ct #:	72	Email: pat. hal	Phyle 78 - 13 FX 4		MALYSIS																Comments & Specia		30%	Custody Seal#
	858 F; 912-352-0165 10-497-9396 F: 330-497-0772	5-7427 F; 813-885-7049 1001 F; 850-478-2671	391-2600 F; 716-961-7991 00 F; 708-534-5211	N	EST	00 7S	シギタリ	ं	METHODS FOR ANALYSIS	V erg			101 X 101 100 100 100 100 100 100 100 10	٠H ۲۰	il.	(×	X	X X X	X					Date/Time/	Date/Time: /	Date/Time:	LAB USE: Custody Intact
	TostAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P. 912-354-7858 F. 912-352-0166 TostAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P. 330-497-9396 F. 330-497-0772	☐ TestAmerica Tampa - 6712 Benjamin Road, Suite 100, Jampa; FL 33634 — P. 813-885-7427 —F. 813-885-704 ☐ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 — P. 850-474-1001 — F. 860-478-2671	☐ TestAmerica Butfalo - 10 Hazalwood Drive, Suite 106, Ámherst, NY 14228 P. 716-691-2600 F. 716-961-7991 ☐ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P. 708-534-5200 F. 708-534-5211	CONSULTANT INFORMATION	Company: AMEC E	Address: Per Rad Rad	City, State, Zip., A. L.	Acid Note 1	sulfate	Hydroxide Code	LIQ = Liquid				Filtered Type Matrix	YorN Comp Code	X 03 9 7	X 109 5 1	N 6 6W	7 PM					() () () () () () () () () ()	Oa	Da	(X) (V) 1 0
LABORATORY INFORMATION	nnah - 5102 LaRoche Avenue, S h Canton - 4101 Shuffel Drive N	pa - 6712 Benjamin Road, Suìte sacola - 3355 McLemore Drive, l	D TestAmerica Butfalo - 10 Hazelwood Drive, Suite 106, Âmherst, MY 1 TestAmerica Chicago - 2417 Bond Street, University Park; IL 60466	of Origin) CA CC		The state of the s	28 ISAR C	ĮŽ		ric Acid 5 = Sodium Hydroxide 6 = Other	SO = Soil		Water Ot = Oil Water SOL = Other Solid	WATER AND AND ADDRESS OF THE PARTY OF THE PA	Sample Collection Fill	Sampler	1035 SF	10 % O 31	1045 SF 1	Contracts Contracts		ALL MANAGEMENT OF THE PARTY OF			Received By:	19	Received By:	Lab Remarks:
LABOHATORY	TestAmerica Sava TestAmerica Nort	☐ TestAmerica Tam☐ TestAmerica Pen	TestAmerica Buff	Proj. State (State of Origin)	Proj. City:	West to be a second of the sec			0 = No Preservatives	1 = Hydrochloric Acid 2 = Nitric Acid	Matrix Codes:	GW = Groundwater	WW = Waste Water		-	Ö	7:13/9	300	7 7 9	6/6/14			AND		272	- alexandra des		3
	CHAIN OF	CUSTODY	-) -		54	75/24		Standard 6-13 Days	Specify # Days	Standard 14 Days Other	Other Deliv:		EDD Required, Format:	STATE OF THE PROPERTY OF THE P	Containers	Number & Type	10000000000000000000000000000000000000		5	7 2 0				 THE PROPERTY OF THE PROPERTY O	Date/Tigne:	Date/Time:	Date/Time:	Date/Time
			IKANSPORTALION	CSXT PROJECT INFORMATION	CSXT Project Number: QH I 5575	CSXT Project Name: HAHDINSON	CSXT Contact: Som Ross		,	M(O		CSXT Standard (Level II)	Level III ED	SAMPLE INFORMATION		Sample Identification	PIOG000-94-WMGF		ER8-03_06062014		Academic and a second a second and a second				Relinquished By:	Refinquished By:	Relinquished By:	Received By Language Date/1

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-102080-2

Login Number: 102080 List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-104723-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Authorized for relea

Authorized for release by: 9/11/2014 5:59:50 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Job ID: 680-104723-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-104723-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 08/28/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

METALS (ICP)

Sample PDMW-13P_08272014 (680-104723-6) was analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

METALS (ICP

Sample PDMW-13P_08272014 (680-104723-6) was analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

TOTAL ORGANIC CARBON (TOC)

Samples HA-01 (3.5-4.0) (680-104723-1), HA-02 (2.5-3.0) (680-104723-2), HA-02 (5.5-6.0) (680-104723-3), HA-03 (2.0-2.5) (680-104723-4) and HA-03 (4.5-5.0) (680-104723-5) were analyzed for Total Organic Carbon (TOC) in accordance with EPA SW-846 9060A.

PERCENT SOLIDS/MOISTURE

Samples HA-01 (3.5-4.0) (680-104723-1), HA-02 (2.5-3.0) (680-104723-2), HA-02 (5.5-6.0) (680-104723-3), HA-03 (2.0-2.5) (680-104723-4) and HA-03 (4.5-5.0) (680-104723-5) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Qualifiers

Metals

U Indicates the analyte was analyzed for but not detected.

General Chemistry

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit

EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit

ML Minimum Level (Dioxin)
NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

9/11/2014

Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-104723-1	HA-01 (3.5-4.0)	Solid	08/27/14 12:30	08/28/14 09:30
680-104723-2	HA-02 (2.5-3.0)	Solid	08/27/14 14:30	08/28/14 09:30
680-104723-3	HA-02 (5.5-6.0)	Solid	08/27/14 15:00	08/28/14 09:30
680-104723-4	HA-03 (2.0-2.5)	Solid	08/27/14 15:55	08/28/14 09:30
680-104723-5	HA-03 (4.5-5.0)	Solid	08/27/14 16:10	08/28/14 09:30
680-104723-6	PDMW-13P_08272014	Water	08/27/14 11:20	08/28/14 09:30

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: HA-01 (3.5-4.0)

TestAmerica Job ID: 680-104723-1

Lab Sample ID: 680-104723-1

Matrix: Solid

Date Collected: 08/27/14 12:30 Date Received: 08/28/14 09:30

_ General Chemistry - ASTM Leach

AnalyteResult
Total Organic Carbon - QuadResult
UQualifier
URL
1.0MDL
1.0Unit
mg/LD
Mg/LPrepared
09/08/14 15:07Analyzed
09/08/14 15:07Dil Fac
09/08/14 15:07

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Client Sample ID: HA-02 (2.5-3.0)

Lab Sample ID: 680-104723-2

Matrix: Solid

Date Collected: 08/27/14 14:30 Date Received: 08/28/14 09:30

General Chemistry - ASTM Leach Analyte

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Total Organic Carbon - Quad 1.4 1.0 mg/L 09/08/14 15:33 1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: HA-02 (5.5-6.0)

TestAmerica Job ID: 680-104723-1

Lab Sample ID: 680-104723-3

Date Collected: 08/27/14 15:00 Matrix: Solid

Date Received: 08/28/14 09:30

General Chemistry - ASTM Leach									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	5.3		1.0		mg/L			09/08/14 15:58	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: HA-03 (2.0-2.5)

TestAmerica Job ID: 680-104723-1

Lab Sample ID: 680-104723-4

Matrix: Solid

Date Collected: 08/27/14 15:55 Date Received: 08/28/14 09:30

	General Chemistry - ASTM Leach									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
l	Total Organic Carbon - Quad	7.0		1.0		mg/L			09/08/14 16:24	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

09/08/14 16:51

Client Sample ID: HA-03 (4.5-5.0)

Lab Sample ID: 680-104723-5

Matrix: Solid

Date Collected: 08/27/14 16:10 Date Received: 08/28/14 09:30

Total Organic Carbon - Quad

Γ									
General Chemistry - ASTM Leach									
Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

1.0

9.3

mg/L

5

6

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-13P_08272014

TestAmerica Job ID: 680-104723-1

Lab Sample ID: 680-104723-6

Matrix: Water

Date Collected: 08/27/14 11:20 Date Received: 08/28/14 09:30

Method: 6010C - Metals (ICP)							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	23	10	ug/L		09/10/14 12:52	09/11/14 11:13	1

Method: 6010C - Metals (ICP) - Dis	solved							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Lead		10	ug/l		09/10/14 13:06	09/11/14 12:00	1	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method:	6010C	- Metals	(ICP)
---------	-------	----------	-------

Analyte

Lead

Lead

Lead

Lab Sample ID: MB 680-348266/1-A Client Sample ID: Method Blank **Matrix: Water**

Prep Type: Total/NA **Prep Batch: 348266**

Prep Batch: 348272

Analysis Batch: 348494 мв мв

Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed 10 09/10/14 12:52 09/11/14 10:11 10 U ug/L

ug/L

ug/L

105

107

75 - 125

75 - 125

Lab Sample ID: LCS 680-348266/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 348494 Prep Batch: 348266

LCS LCS Spike Result Qualifier Analyte Added Unit %Rec Limits

50.0

Lab Sample ID: MB 680-348272/1-A Client Sample ID: Method Blank **Matrix: Water Prep Type: Total Recoverable**

52.7

53.4

Analysis Batch: 348494

мв мв Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 10 U 10 09/10/14 13:06 09/11/14 11:37 Lead ug/L

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 680-348272/2-A **Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 348494 Prep Batch: 348272

LCS LCS Spike %Rec. Added Analyte Result Qualifier Unit %Rec Limits

50.0

Lab Sample ID: LCSD 680-348272/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 348494 **Prep Batch: 348272** Spike LCSD LCSD %Rec. RPD

Added Limit Analyte Result Qualifier Unit D Limits RPD %Rec 50.0 50.4 Lead 101 75 - 125 20 ug/L

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-117391/6 Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 117391

мв мв Result Qualifier RLDil Fac Analyte MDL Unit Prepared Analyzed Total Organic Carbon - Quad 1.0 U 1.0 mg/L 09/08/14 14:33

Lab Sample ID: LCS 180-117391/4 **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 117391

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Total Organic Carbon - Quad 20.0 19.3 mg/L 96 80 - 120

TestAmerica Savannah

QC Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 180-117391/5	Client Sample ID: Lab Control Sample Dup
Matrix: Solid	Prep Type: Total/NA

Analysis Batch: 117391

-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Total Organic Carbon - Quad	20.0	19.2		mg/L		96	80 - 120	0	20

Lab Sample ID: LB3 180-117159/6-A **Client Sample ID: Method Blank** Matrix: Solid **Prep Type: ASTM Leach**

Analysis Batch: 117391

-	LB3	LB3							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	1.0	U	1.0		mg/L			09/08/14 17:16	1

TestAmerica Job ID: 680-104723-1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Metals

Prep Batch: 348266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-6	PDMW-13P_08272014	Total/NA	Water	3010A	
LCS 680-348266/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-348266/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 348272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-6	PDMW-13P_08272014	Dissolved	Water	3005A	
LCS 680-348272/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 680-348272/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 680-348272/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 348494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-6	PDMW-13P_08272014	Dissolved	Water	6010C	348272
680-104723-6	PDMW-13P_08272014	Total/NA	Water	6010C	348266
LCS 680-348266/2-A	Lab Control Sample	Total/NA	Water	6010C	348266
LCS 680-348272/2-A	Lab Control Sample	Total Recoverable	Water	6010C	348272
LCSD 680-348272/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	348272
MB 680-348266/1-A	Method Blank	Total/NA	Water	6010C	348266
MB 680-348272/1-A	Method Blank	Total Recoverable	Water	6010C	348272

General Chemistry

Analysis Batch: 116615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-1	HA-01 (3.5-4.0)	Total/NA	Solid	2540G	
680-104723-2	HA-02 (2.5-3.0)	Total/NA	Solid	2540G	
680-104723-3	HA-02 (5.5-6.0)	Total/NA	Solid	2540G	
680-104723-4	HA-03 (2.0-2.5)	Total/NA	Solid	2540G	
680-104723-5	HA-03 (4.5-5.0)	Total/NA	Solid	2540G	

Leach Batch: 117159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-1	HA-01 (3.5-4.0)	ASTM Leach	Solid	D3987-85	
680-104723-2	HA-02 (2.5-3.0)	ASTM Leach	Solid	D3987-85	
680-104723-3	HA-02 (5.5-6.0)	ASTM Leach	Solid	D3987-85	
680-104723-4	HA-03 (2.0-2.5)	ASTM Leach	Solid	D3987-85	
680-104723-5	HA-03 (4.5-5.0)	ASTM Leach	Solid	D3987-85	
LB3 180-117159/6-A	Method Blank	ASTM Leach	Solid	D3987-85	

Analysis Batch: 117391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104723-1	HA-01 (3.5-4.0)	ASTM Leach	Solid	9060A	117159
680-104723-2	HA-02 (2.5-3.0)	ASTM Leach	Solid	9060A	117159
680-104723-3	HA-02 (5.5-6.0)	ASTM Leach	Solid	9060A	117159
680-104723-4	HA-03 (2.0-2.5)	ASTM Leach	Solid	9060A	117159
680-104723-5	HA-03 (4.5-5.0)	ASTM Leach	Solid	9060A	117159
LB3 180-117159/6-A	Method Blank	ASTM Leach	Solid	9060A	117159
LCS 180-117391/4	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 180-117391/5	Lab Control Sample Dup	Total/NA	Solid	9060A	

TestAmerica Savannah

9/11/2014

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

General Chemistry (Continued)

Analysis Batch: 117391 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-117391/6	Method Blank	Total/NA	Solid	9060A	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-104723-1

Lab Sample ID: 680-104723-2

Lab Sample ID: 680-104723-3

Matrix: Solid

Matrix: Solid

Matrix: Solid

Client Sample ID: HA-01 (3.5-4.0) Date Collected: 08/27/14 12:30

Date Received: 08/28/14 09:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			116615	08/30/14 13:30	NAK	TAL PIT
	Instrum	ent ID: NOEQUIP								
ASTM Leach	Leach	D3987-85			00100.12 g	2000 mL	117159	09/05/14 12:22	JWS	TAL PIT
ASTM Leach	Analysis	9060A		1			117391	09/08/14 15:07	CLL	TAL PIT
	Instrum	ent ID: TOC1030								

Client Sample ID: HA-02 (2.5-3.0)

Date Collected	l: 08/27/14 14:	:30								Matrix: Solid
Date Received	: 08/28/14 09:	30								
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Pren Tyne	Tyne	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Δnalvst	l ah

								•		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			116615	08/30/14 13:30	NAK	TAL PIT
	Instrum	ent ID: NOEQUIP								
ASTM Leach	Leach	D3987-85			00100.02 g	2000 mL	117159	09/05/14 12:22	JWS	TAL PIT
ASTM Leach	Analysis	9060A		1			117391	09/08/14 15:33	CLL	TAL PIT
	Instrum	ent ID: TOC1030								

Client Sample ID: HA-02 (5.5-6.0)

Date Collected: 08/27/14 15:00

Date Received: 08/28/14 09:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			116615	08/30/14 13:30	NAK	TAL PIT
	Instrum	ent ID: NOEQUIP								
ASTM Leach	Leach	D3987-85			00100.33 q	2000 mL	117159	09/05/14 12:22	JWS	TAL PIT

Client Sample ID: HA-03 (2.0-2.5)

Date Collected: 08/27/14 15:55

Date Received: 08/28/14 09:30

Client Sample	o ID∙ HΔ-03	(2 0-2 5)				Lah Sample	1D: 68	20-104723-4	
	Instrume	ent ID: TOC1030							
ASTM Leach	Analysis	9060A	1		117391	09/08/14 15:58	CLL	TAL PIT	
ASTM Leach	Leach	D3987-85	00100.33 g	2000 mL	11/159	09/05/14 12:22	JWS	TAL PIT	

Prep Type Total/NA	Batch Type Analysis Instrume	Batch Method 2540G ent ID: NOEQUIP	Run	Dil Factor	Initial Amount	Final Amount	Number 116615	Prepared or Analyzed 08/30/14 13:30	Analyst NAK	Lab TAL PIT
ASTM Leach	Leach	D3987-85			00100.06 g	2000 mL	117159	09/05/14 12:22	JWS	TAL PIT
ASTM Leach	Analysis Instrum	9060A ent ID: TOC1030		1			117391	09/08/14 16:24	CLL	TAL PIT

TestAmerica Savannah

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Client Sample ID: HA-03 (4.5-5.0)

Lab Sample ID: 680-104723-5

Date Collected: 08/27/14 16:10 Date Received: 08/28/14 09:30

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G	_	1			116615	08/30/14 13:30	NAK	TAL PIT
	Instrum	ent ID: NOEQUIP								
ASTM Leach	Leach	D3987-85			00100.02 g	2000 mL	117159	09/05/14 12:22	JWS	TAL PIT
ASTM Leach	Analysis	9060A		1			117391	09/08/14 16:51	CLL	TAL PIT
	Instrum	ent ID: TOC1030								

Lab Sample ID: 680-104723-6

Client Sample ID: PDMW-13P_08272014

Matrix: Water

Date Collected: 08/27/14 11:20 Date Received: 08/28/14 09:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	348272	09/10/14 13:06	SP	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	348494	09/11/14 12:00	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Prep	3010A			50 mL	50 mL	348266	09/10/14 12:52	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	348494	09/11/14 11:13	BCB	TAL SAV
	Instrume	ent ID: ICPF								

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15
Connecticut	State Program	1	PH-0688	09-30-14 *
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15
North Carolina (WW/SW)	State Program	4	434	12-31-14
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-14 *
West Virginia DEP	State Program	3	142	01-31-15
Wisconsin	State Program	5	998027800	08-31-14 *

9/11/2014

TestAmerica Savannah

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-104723-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
2540G	SM 2540G	SM22	TAL PIT
9060A	Organic Carbon, Total (TOC)	SW846	TAL PIT

Protocol References:

SM22 = SM22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058 TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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. coc#	0772 SHIPMENT INFORMATION	Anna Maria	Shipment Tracking No:	HAES-00EH-9, policy	PM: Pat Harrison	Stloo Email pat, harrison @american	Phone 78 1658-1374	COMMENTS LAB USE	IR ANALYSIS														to said	Crain of Co	280-104 6	ments & Special Analytical Requirements:			ct Custody Seal # LAB Log Number # #
54-7959 E-019-959-0165	: 330-497-9396 F: 330-497-	-885-7427 F: 813-885-7049 74-1001 F: 850-478-2671	16-691-2600 F; 716-961-799 -5200 F: 708-534-5211	NOI	ESI	2	18	0	METHODS FOR ANALYSIS	WC) ₂)C		, 5	0			X	4		×	X					Date/Time:	Date/Time:	Date/Time:	LAB USE: Custody Intact
Savanah GA 31404 D: 012-3	TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P. 330-497-9396 F. 330-497-0772	ı tampa - 6.772 Benjamın Hoad, Sutte 100, Tampa, FL 33654 - 17: 813-885-7427 - 17: 813-885-70 I Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 - 17: 850-474-1001 - 17: 850-478-2671	☐ TestAmerica Buffalo - 10 Hazelwood Drive, Sulte 106, Amherst, NY 14228 P: 716-691-2600 F: 716-961-7991 ☐ TestAmerica Chicago - 2417 Bond Street, Linversity Park, IL 60466 P: 708-534-5200 F: 708-534-5211	CONSULTANT INFORMATION	Company: Amec	Address: 3800 Ezell	City, State, Zip: hville	Sulfuric Acid Note		5 = Sodium Hydroxide Code 6 = Other	LIQ = Liquid		her Solid		Filtered Type Matrix	YorN Comp Code	S 9 N	S	S 9 7	5 9 2	S 9 7								3.0.6
Savannah - 5102 LaBoche Avenu	orth Canton - 4101 Shuffel Driv	mpa - 6712 Benjamin Road, St nsacola - 3355 McLemore Driv	ifalo - 10 Hazelwood Drive, Su icago - 2417 Bond Street, Univ	te of Origin)			endina	3 = Sulfur				dwater SL = Sludge	L		Sample Collection	Sampler	1230 35	1430 35	1 1500 35	1585 33	1610 55					Received By:	Received By:	Received By:	Lab Remarks: 723
Toet/merica Sa	TestAmerica No	U lestAmerica la U TestAmerica Pe	☐ TestAmerica Bu ☐ TestAmerica Ch	Proj. State (State of Origin)	Proj. City: So		MON: P	Preservative Codes:	0 = No Preservatives	1 = Hydrochloric Acid 2 = Nitric Acid	Matrix Codes:	GW = Groundwater	WW = Waste Water SW = Surface Water			Da	F1 152/38	P1/62/8	18/24/14	18/22/14	18/27/14					0061 HILT			9.30 108
	IAIN OF	CUSTODY			75	n Island		Standard 6-13 Days	Specify # Days	Standard 14 Days Other	Other Deliv:		EDD Required, Format:		Containers	Number & Type	7	-	_	(Date(Time:)H	Date/Time:	Date/Time:	OE DIMENTING
		TRANSPORTATION		CSXT PROJECT INFORMATION	CSXT Project Number: 9 4 (SS 7 号	CSXT Project Name: Hutchinson	CSXT Contact: Sam Ross	Turnaround Time: Stand	•	2 Day Rush X Standa 3 Day Rush Other		CSXT Standard (Level II)	Level III EDD R	SAMPLE INFORMATION		Sample Identification	44-01 (3,5-4,0	HA-02 (8,5-3.0)	HA-02 (5.5-6.0	4A-03 (20-25)	HA-03 (4,5-5,0)					Relinquished By:	Relinquished By:	Relinquished By:	Received By Laboratory:

	ORMATION	FELEX	No:	1330 - 5244	AM(so)	Patharran gamerion	3-13-x Fax	COMMENTS LAB USE					ing gi genigandere			e planing de Access							Comments & Special Analytical Requirements:			LAB Log Number #
# 000		and the same	Shipment Tracking No:	Project #: 6 - 4390	PM: Pat Harrison	Ensithar Pathar	(1548) (58-137		NALYSIS										**************************************				Comments & S	T	T	Custody Seal #
	LestAmerica Savannan - 5102 Lahocre Avenue, Savannan, GA 31404 P. 912-834-7688 F. 912-832-0166 TestAmerica North Carton - 4101 Shuffel Drive NW, North Carton, OH 44702 P. 330-497-9396 F. 330-497-0772	F: 813-885-7049 F: 850-478-2671	600 F: 716-961-7991 F: 708-534-5211		1+	Str. 100	721	الع	METHODS FOR ANALYSIS		9		P-20	110	55	\Q	×					04 you	ne:	ne:	ne:	E: Custody Intact
	2-354-7858 P: 330-49	813-885-742	534-5200	IATION	日本十	RA S	di	Ø	_		, i	9	<u>d</u> 1		PQ	L	X	LOS DO TOTAL					Date/Time:	Date/Time:	Date/Time:	LAB USE:
	vannan, GA 31404 P: 91 /, North Canton, OH 44720	00, lampa, FL 33634 P: ensacola, FL 32514 P: 85	06, Amherst, NY 14228 y Park, IL 60466 P: 708	CONSULTANT INFORMATION	Company: PMEC	Address: 52ell	11	oid Note		ydroxide Code		LIQ = Liquid	ciio		Filtered Type Matrix	Comp or Grab	M9 9 /									14723
ATION	LaKocne Avenue, So 101 Shuffel Drive NV	njamin Road, Suite 1 McLemore Drive, P	ilwood Drive, Suite 1 Iond Street, Universi	00 AS				3 = Sulfuric Acid	4 = Sodium Thiosulfate	5 = Sodium Hydroxide		SO = Soil	01 = 0il	00F = 01181		Sampler	155 7						By:	By:	By:	Lab Remarks:
NFORM	annan - 5102 th Canton - 4	ipa - 6712 Be sacola - 3355	ialo - 10 Haze cago - 2417 B	e of Origin)	8		pendina	Codes:	vatives	ric Acid		: water	Nater Water	a diagram	Sample Collection	Time	1130						Received By:	Received By:	Received By:	Lab Rem
LABORATORY INFORMATION	TestAmerica Sava	U lestAmerica lam U TestAmerica Pens	☐ TestAmerica Buff ☐ TestAmerica Chio	Proj. State (State of Origin) GA	Proj. City Savanah		LWON: Pe	Preservative Codes:	0 = No Preservatives	1 = Hydrochloric Acid		Matrix Codes:	WW = Waste Water	On the	Sample	Date	41/tz/8						00/6]			20 20
						Island		3 Days	/s	Days			d, Format:		Containers	Number & Type	2						Date/Time: PA	Date/Time:	Date/Time:	Date/Fime 9:30
	CHAIN OF	CUSTODY		ATION	9415575	١'	R055	Standard 6-13 Days	Specify # Days	Standard 14 Days		Other Deliv:	EDD Required, Format:			ication	78272014						2			18612 4
	メソし	TRANSPORTATION		CSXT PROJECT INFORMATION	CSXT Project Number:	CSXT Project Name: Hutchinson	CSXT Contact: Sam	Turnaround Time:	1 Day Rush	2 Day Rush	and a second	CSXT Standard (I evel II)	Level III	SAMPLE INFORMATION		Sample Identification	PDMW-13P_08272014		:			-	Relinquished By:	Relinquished By:	Relinquished By:	Received By Laboratory

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-104723-1

Login Number: 104723 List Source: TestAmerica Savannah

List Number: 1

Creator: White, Menica R

Creator. Writte, interitor ix		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-104723-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 08/29/14 11:47 AM

Creator: Butcher, Ryan M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-106890-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Authorized for release

Authorized for release by: 11/12/2014 12:52:04 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Job ID: 680-106890-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-106890-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

<u>RECEIPT</u>

The samples were received on 11/4/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

METALS (ICP)

Samples PDMW-46_11032014 (680-106890-1), PDMW-19P_11032014 (680-106890-2), PDMW-30P_11032014 (680-106890-3), MW-1_11032014 (680-106890-4), PDMW-45R_11032014 (680-106890-5) and MW-2_11042014 (680-106890-6) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

AMMONIA

Samples PDMW-46_11032014 (680-106890-1), PDMW-19P_11032014 (680-106890-2), PDMW-30P_11032014 (680-106890-3), MW-1_11032014 (680-106890-4), PDMW-45R_11032014 (680-106890-5) and MW-2_11042014 (680-106890-6) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 11/06/2014.

Ammonia recovery is outside criteria high for the MS and MSD of sample PDMW-19P_11032014 (680-106890-2) in batch 680-357501.

Samples PDMW-46_11032014 (680-106890-1)[2X], PDMW-19P_11032014 (680-106890-2)[5X], PDMW-30P_11032014 (680-106890-3) [2X], MW-1_11032014 (680-106890-4)[20X], PDMW-45R_11032014 (680-106890-5)[5X] and MW-2_11042014 (680-106890-6)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-46_11032014 (680-106890-1), PDMW-19P_11032014 (680-106890-2), PDMW-30P_11032014 (680-106890-3), MW-1_11032014 (680-106890-4), PDMW-45R_11032014 (680-106890-5) and MW-2_11042014 (680-106890-6) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Qualifiers

Metals

Qualifier	Qualifier	Description	n

Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

<u>,</u>	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration

Method Detection Limit MDL MLMinimum Level (Dioxin)

NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

PQL **Practical Quantitation Limit**

QC **Quality Control** RER Relative error ratio

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

TestAmerica Savannah

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106890-1	PDMW-46_11032014	Water	11/03/14 14:15	11/04/14 09:20
680-106890-2	PDMW-19P_11032014	Water	11/03/14 14:35	11/04/14 09:20
680-106890-3	PDMW-30P_11032014	Water	11/03/14 15:31	11/04/14 09:20
680-106890-4	MW-1_11032014	Water	11/03/14 15:55	11/04/14 09:20
680-106890-5	PDMW-45R_11032014	Water	11/03/14 17:03	11/04/14 09:20
680-106890-6	MW-2_11042014	Water	11/04/14 08:30	11/04/14 09:20

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-46_11032014

TestAmerica Job ID: 680-106890-1

Lab Sample ID: 680-106890-1

Matrix: Water

Date Collected: 11/03/14 14:15 Date Received: 11/04/14 09:20

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:19	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:19	1
_									

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.2		0.10		mg/L			11/06/14 17:39	2
Nitrate as N	0.050	U	0.050		mg/L			11/04/14 16:12	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Nitrate as N

TestAmerica Job ID: 680-106890-1

11/04/14 16:13

Date Collected: 11/03/14 14:35

Date Received: 11/04/14 09:20

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		U	20		ug/L		11/07/14 14:19	11/10/14 17:41	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:41	1
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 17:41	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	4.5		0.25		mg/L			11/06/14 17:49	5

0.050

mg/L

0.050 U

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Client Sample ID: PDMW-30P_11032014

Date Collected: 11/03/14 15:31 Date Received: 11/04/14 09:20 Lab Sample ID: 680-106890-3

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:46	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:46	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.2		0.10		mg/L			11/06/14 17:39	2
Nitrate as N	0.050	U	0.050		ma/L			11/04/14 16:14	1

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Client: AMEC Environment & Infrastructure, Inc.

TestAmerica Job ID: 680-106890-1

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: MW-1_11032014 Lab Sample ID: 680-106890-4 Date Collected: 11/03/14 15:55

Matrix: Water

Date Received: 11/04/14 09:20

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:51	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:51	1

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Ammonia	25	1.0	mg/L		11/06/14 18:35	20
Nitrate as N	0.050 U	0.050	ma/L		11/04/14 16:15	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Client Sample ID: PDMW-45R_11032014

Date Collected: 11/03/14 17:03 Date Received: 11/04/14 09:20 Lab Sample ID: 680-106890-5

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:04	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:04	1
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 18:04	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	4.7		0.25		mg/L			11/06/14 17:59	5
Nitrate as N	0.050	U	0.050		mg/L			11/04/14 16:16	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Client Sample ID: MW-2_11042014

Date Collected: 11/04/14 08:30 Date Received: 11/04/14 09:20 Lab Sample ID: 680-106890-6

Matrix: Water

Arsenic 20 U 20 ug/L 11/07/14 14:19 11/10/14 18:09	Method: 6010C - Metals (ICP)									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead 10 U 10 ug/L 11/07/14 14:19 11/10/14 18:09	Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:09	1
g ·	Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:09	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	23		1.0		mg/L			11/06/14 18:35	20
Nitrate as N	0.050	U	0.050		ma/L			11/04/14 16:20	1

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TestAmerica Job ID: 680-106890-1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-357578/1-A

Matrix: Water

Analysis Batch: 358031

Client Sam	ole	ID:	Meth	lod	Blank	
	Dro	n T	vno:	Tot	al/NIA	

Prep Type: Total/NA **Prep Batch: 357578**

Prep Batch: 357578

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:10	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:10	1
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 17:10	1

Lab Sample ID: LCS 680-357578/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358031

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	101		ug/L		101	80 - 120	
Lead	500	486		ug/L		97	80 - 120	
Nickel	100	98.4		ug/L		98	80 - 120	

Lab Sample ID: 680-106890-1 MS Client Sample ID: PDMW-46_11032014

Matrix: Water

Analysis Batch: 358031

Prep Type: Total/NA **Prep Batch: 357578**

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	109		ug/L		101	75 - 125	
Lead	10	U	500	492		ug/L		98	75 - 125	
Nickel	40	U	100	108		ug/L		98	75 - 125	

Lab Sample ID: 680-106890-1 MSD Client Sample ID: PDMW-46_11032014 Prep Type: Total/NA

Matrix: Water

Analyte Arsenic Lead Nickel

Analysis Batch: 35803

31									Prep	Batch: 3	57578	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
	20	U	100	107		ug/L		99	75 - 125	2	20	
	10	U	500	480		ug/L		96	75 - 125	3	20	
	40	U	100	105		ug/L		96	75 - 125	2	20	

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-357501/15

Matrix: Water

Analysis Batch: 357501

Client Sample ID: Method Blank Prep Type: Total/NA

Analyte Result Qualifier RL MDL Unit Dil Fac Prepared Analyzed Ammonia 0.050 U 0.050 mg/L 11/06/14 16:59

Lab Sample ID: LCS 680-357501/16 Client Sample ID: Lab Control Sample

MR MR

Matrix: Water

Analysis Batch: 357501

, , .	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	1.00	1.00		mg/L		100	90 - 110	

TestAmerica Savannah

11/12/2014

Prep Type: Total/NA

TestAmerica Job ID: 680-106890-1

Client Sample ID: PDMW-19P_11032014

Client Sample ID: PDMW-19P_11032014

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 680-106890-2 MS

Matrix: Water

Analyte

Ammonia

Analysis Batch: 357501

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier %Rec Limits Unit D 1.00 90 - 110 4.5 5.68 4 mg/L 115

Lab Sample ID: 680-106890-2 MSD

Matrix: Water

Analysis Batch: 357501

7 maryolo Batom cor cor	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia	4.5		1.00	5.70	4	mg/L		116	90 - 110	0	30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-356938/13

Matrix: Water

Analysis Batch: 356938

мв мв

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050	mg/L			11/04/14 15:51	1

Lab Sample ID: LCS 680-356938/16

Matrix: Water

Analysis Batch: 356938

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.500	0.513		mg/L		103	75 - 125	

TestAmerica Savannah

TestAmerica Job ID: 680-106890-1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Metals

Prep Batch: 357578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106890-1	PDMW-46_11032014	Total/NA	Water	3010A	
680-106890-1 MS	PDMW-46_11032014	Total/NA	Water	3010A	
680-106890-1 MSD	PDMW-46_11032014	Total/NA	Water	3010A	
680-106890-2	PDMW-19P_11032014	Total/NA	Water	3010A	
680-106890-3	PDMW-30P_11032014	Total/NA	Water	3010A	
680-106890-4	MW-1_11032014	Total/NA	Water	3010A	
680-106890-5	PDMW-45R_11032014	Total/NA	Water	3010A	
680-106890-6	MW-2_11042014	Total/NA	Water	3010A	
LCS 680-357578/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-357578/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 358031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106890-1	PDMW-46_11032014	Total/NA	Water	6010C	357578
680-106890-1 MS	PDMW-46_11032014	Total/NA	Water	6010C	357578
680-106890-1 MSD	PDMW-46_11032014	Total/NA	Water	6010C	357578
680-106890-2	PDMW-19P_11032014	Total/NA	Water	6010C	357578
680-106890-3	PDMW-30P_11032014	Total/NA	Water	6010C	357578
680-106890-4	MW-1_11032014	Total/NA	Water	6010C	357578
680-106890-5	PDMW-45R_11032014	Total/NA	Water	6010C	357578
680-106890-6	MW-2_11042014	Total/NA	Water	6010C	357578
LCS 680-357578/2-A	Lab Control Sample	Total/NA	Water	6010C	357578
MB 680-357578/1-A	Method Blank	Total/NA	Water	6010C	357578

General Chemistry

Analysis Batch: 356938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106890-1	PDMW-46_11032014	Total/NA	Water	353.2	_
680-106890-2	PDMW-19P_11032014	Total/NA	Water	353.2	
680-106890-3	PDMW-30P_11032014	Total/NA	Water	353.2	
680-106890-4	MW-1_11032014	Total/NA	Water	353.2	
680-106890-5	PDMW-45R_11032014	Total/NA	Water	353.2	
680-106890-6	MW-2_11042014	Total/NA	Water	353.2	
LCS 680-356938/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-356938/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 357501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
680-106890-1	PDMW-46_11032014	Total/NA	Water	350.1	
680-106890-2	PDMW-19P_11032014	Total/NA	Water	350.1	
680-106890-2 MS	PDMW-19P_11032014	Total/NA	Water	350.1	
680-106890-2 MSD	PDMW-19P_11032014	Total/NA	Water	350.1	
680-106890-3	PDMW-30P_11032014	Total/NA	Water	350.1	
680-106890-4	MW-1_11032014	Total/NA	Water	350.1	
680-106890-5	PDMW-45R_11032014	Total/NA	Water	350.1	
680-106890-6	MW-2_11042014	Total/NA	Water	350.1	
LCS 680-357501/16	Lab Control Sample	Total/NA	Water	350.1	
MB 680-357501/15	Method Blank	Total/NA	Water	350.1	

TestAmerica Savannah

Page 13 of 19

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-106890-1

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Client Sample ID: PDMW-46_11032014

Date Collected: 11/03/14 14:15 Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 17:19	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		2	2 mL	2 mL	357501	11/06/14 17:39	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	356938	11/04/14 16:12	GRX	TAL SAV

Client Sample ID: PDMW-19P_11032014 Lab Sample ID: 680-106890-2

Date Collected: 11/03/14 14:35

Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrum	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 17:41	BCB	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		5	2 mL	2 mL	357501	11/06/14 17:49	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	356938	11/04/14 16:13	GRX	TAL SAV

Client Sample ID: PDMW-30P_11032014 Lab Sample ID: 680-106890-3

Date Collected: 11/03/14 15:31 Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 17:46	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		2	2 mL	2 mL	357501	11/06/14 17:39	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	356938	11/04/14 16:14	GRX	TAL SAV

Client Sample ID: MW-1_11032014 Lab Sample ID: 680-106890-4

Date Collected: 11/03/14 15:55 Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358031	11/10/14 17:51	BCB	TAL SAV
	Instrum	ent ID: ICPF								

TestAmerica Savannah

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11/12/2014

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Client Sample ID: MW-1_11032014

Lab Sample ID: 680-106890-4 Date Collected: 11/03/14 15:55

Matrix: Water

Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		20	2 mL	2 mL	357501	11/06/14 18:35	JME	TAL SAV
	Instrume	ent ID: KONELAE	31							
Total/NA	Analysis	353.2 ent ID: LACHAT2	•	1	2 mL	2 mL	356938	11/04/14 16:15	GRX	TAL SAV

Client Sample ID: PDMW-45R_11032014 Lab Sample ID: 680-106890-5

Date Collected: 11/03/14 17:03 **Matrix: Water**

Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 18:04	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		5	2 mL	2 mL	357501	11/06/14 17:59	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	356938	11/04/14 16:16	GRX	TAL SAV

Client Sample ID: MW-2_11042014 Lab Sample ID: 680-106890-6

Date Collected: 11/04/14 08:30 Matrix: Water

Date Received: 11/04/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrum	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 18:09	ВСВ	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		20	2 mL	2 mL	357501	11/06/14 18:35	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	356938	11/04/14 16:20	GRX	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

11/12/2014

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

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Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106890-1

Method Description	Protocol	Laboratory
Metals (ICP)	SW846	TAL SAV
Nitrogen, Ammonia	MCAWW	TAL SAV
Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV
	Metals (ICP) Nitrogen, Ammonia	Metals (ICP) SW846 Nitrogen, Ammonia MCAWW

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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CSX CHAIN OF		TestAmerica Sava	ınah - 5102 LaRor	che Avenue, S	savannah, GA ?	31404 P. 91	O 25/1_7859	E- 019-259-0165	10 0165				
		TestAmerica Nortl	Canton - 4101 St	Tuffel Drive N	W, North Canto	on, OH 44720	P: 330-49	77-9396 F	-534-7550 F. 312-532-0163 P: 330-497-9396 F: 330-497-0772		SHIPMENT INFORMATION	7	
TRANSPORTATION CUSTODY		☐ festAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 ☐ festAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001 ☐ festAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-26	a - 6712 Benjamir acola - 3355 McLe lo - 10 Hazelwood	n Road, Suite imore Drive, F Drive, Suite 1	100, Tampa, F Pensacola, FL (106, Amherst.	L 33634 P: 8 32514 P: 85i NY 14228 P	P: 813-885-7427 P: 850-474-1001 F: 850-474-1001 F: 850-474-1001 F: 850-474-1001 F: 850-474-1001 F: 85000		F: 813-885-7049 : 850-478-2671) F: 716-961-7991	Shipment Method:	othod:		
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CSXT PROJECT INFORMATION		Proj. State (State of Origin)	of Origin) GA		CONSULTANT INFORMATION	T INFORM	IATION			Project #.(Project #6-4300-5344	かんで	
CSXT Project Number: 9415575		Proj. City: Sai	Savennah	Col	Company:	Amec E	ERI	1,		PM: Pact	Pat Harrison	٠, ح	
OSXT Project Name: Hutchinson Islan	annested)	1 1		Adr	Address: OO	Ereli	1 Rd	ま	001	Pat. ha	pat, harrison@amec.com	Mec. Co	\
	FNYOOOE	5E54 NOMIC	885MR	Æ.Z	City State, Zip: 1 L	11- IN	co.	1124		Phope 3	声51-959(草	
Turnaround Time: Standard 6-13 Days	3 Days	8	Codes: 3=	Sulfur	\cid	4 ~	c∩ 1	B,3 3	6		COMMENTS	IENTS	LAB USE
I	/s	0 = No Preservatives	4	= Sodium Thiosulfate	hiosulfate	Pres.		METH	DDS FOR	METHODS FOR ANALYSIS			
2 Day Rush Standard 14 Days 3 Day Rush Other	Days	1 = Hydrochloric Acid 2 = Nitric Acid		5 = Sodium Hydroxide 6 = Other	-lydroxide	Code							;
Dejiverables: Other Deliv:		Matrix Codes:		SO = Soil		LIQ = Liquid							
idard (Level II)		GW = Groundwater		SL = Sludge			જ				-	680-	1111111
Level III C. EDD Required; Format: Level IV	d, Format:	WW = Waste Water SW = Surface Water		OI = Oil SOL = Other Solid	Solid		JUG	24.20				-1068	6 W L U
SAMPLE INFORMATION				ļ			w	J				390	
	Containers	Sample	Sample Collection	E E	Filtered Type	oe Matrix	-	:11 :21	11:	10		Cha	
Sample Identification	Number & Type	Date		Sampler Y o	YorN Comp	mp Code		7	}		-	in of G	
PDMW-46_11032014	4 poly	7 12 12	14 15 tr.	A Det	9	3	×	×	X			Custo	
PDMW-19P-11032014		॥ औप	1435 P	PLB N	1 6	6W	×	X	XX			dy	
POMW-30P-11032014	H poly	गाउंग	1531]	J55 *	K 6	اناع ا	×	X	×				
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Mw-2-11042014	4 6004	11/5/11	10880	pe 1	<i>S</i> ≥	3	×	×	X				
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Hermonished Harman	Date/Time: //	00607	Received By:	Į			Date/Time:	me:					
Relinquished By:	Date/Time:		Received By:	3	- JAR	(Date/Time:	me.) 14	9920			٠.	
Received By Laboratory:	Date/Time:		Lab Remarks: 680 - 1068%	106890	/a.4	J	LAB USE:		Custody Intact	Custody Se	Seal# LAB	LAB Log Number #	

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-106890-1

Login Number: 106890 List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

ordatori domini, reactori	
Question	Answer Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td>	N/A
The cooler's custody seal, if present, is intact.	True
Sample custody seals, if present, are intact.	True
The cooler or samples do not appear to have been compromised or tampered with.	True
Samples were received on ice.	True
Cooler Temperature is acceptable.	True
Cooler Temperature is recorded.	True
COC is present.	True
COC is filled out in ink and legible.	True
COC is filled out with all pertinent information.	True
Is the Field Sampler's name present on COC?	True
There are no discrepancies between the containers received and the COC.	True
Samples are received within Holding Time.	True
Sample containers have legible labels.	True
Containers are not broken or leaking.	True
Sample collection date/times are provided.	True
Appropriate sample containers are used.	True
Sample bottles are completely filled.	True
Sample Preservation Verified.	True
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A
Multiphasic samples are not present.	True
Samples do not require splitting or compositing.	True
Residual Chlorine Checked.	N/A

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-106920-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Sida Hosey

Authorized for release by: 11/13/2014 6:11:12 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Job ID: 680-106920-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-106920-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 11/5/2014 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples PDMW-48_11042014 (680-106920-7) and TRIP_BLANK_11042014 (680-106920-10) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Method(s) 8260B: The matrix spike and matrix spike duplicate were double spiked with internal standards. Internal standards recovered double as would be expected, but spiked analytes are within control limits when adjustment is made for the double spike.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Sample PDMW-48_11042014 (680-106920-7) was analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

METALS (ICP)

Samples PDMW-33R2_11042014 (680-106920-1), PDMW-47_11042014 (680-106920-2), TMW-4R_11042014 (680-106920-5), PDMW-7P_11042014 (680-106920-6), PDMW-48_11042014 (680-106920-7), EW-1_11042014 (680-106920-8) and MW-202_11042014 (680-106920-9) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

<u>AMMONIA</u>

Samples PDMW-33R2_11042014 (680-106920-1), PDMW-47_11042014 (680-106920-2), PDMW-49_11042014 (680-106920-3), PDMW-53_11042014 (680-106920-4), TMW-4R_11042014 (680-106920-5), PDMW-7P_11042014 (680-106920-6), PDMW-48_11042014 (680-106920-7), EW-1_11042014 (680-106920-8) and MW-202_11042014 (680-106920-9) were analyzed for ammonia in accordance with EPA Method 350.1.

Samples PDMW-33R2_11042014 (680-106920-1)[10X], PDMW-47_11042014 (680-106920-2)[100X], PDMW-53_11042014 (680-106920-4)[5X], TMW-4R_11042014 (680-106920-5)[5X], PDMW-7P_11042014 (680-106920-6)[10X], PDMW-48_11042014 (680-106920-7)[20X] and EW-1_11042014 (680-106920-8)[500X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-33R2_11042014 (680-106920-1), PDMW-47_11042014 (680-106920-2), PDMW-49_11042014 (680-106920-3), PDMW-53_11042014 (680-106920-4), TMW-4R_11042014 (680-106920-5), PDMW-7P_11042014 (680-106920-6), PDMW-48_11042014 (680-106920-7), EW-1_11042014 (680-106920-8) and MW-202_11042014 (680-106920-9) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Qualifiers

GC/MS VOA

U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Metals

U Indicates the analyte was analyzed for but not detected.

General Chemistry

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery

CFL Contains Free Liquid

CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit
MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Sample Summary

Water

Water

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID

PDMW-33R2_11042014

PDMW-47_11042014

PDMW-49_11042014

PDMW-53_11042014

TMW-4R_11042014

PDMW-7P_11042014

PDMW-48_11042014

EW-1_11042014

MW-202_11042014

TRIP_BLANK_11042014

Lab Sample ID

680-106920-1

680-106920-2

680-106920-3

680-106920-4

680-106920-5

680-106920-6

680-106920-7

680-106920-8

680-106920-9

680-106920-10

TestAmerica Job ID: 680-106920-1

Matrix	Collected	Received
Water	11/04/14 10:27	11/05/14 08:30
Water	11/04/14 11:49	11/05/14 08:30
Water	11/04/14 14:57	11/05/14 08:30
Water	11/04/14 16:30	11/05/14 08:30
Water	11/04/14 09:50	11/05/14 08:30
Water	11/04/14 11:25	11/05/14 08:30
Water	11/04/14 14:25	11/05/14 08:30
Water	11/04/14 15:55	11/05/14 08:30

11/04/14 17:00

11/04/14 00:00

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11/05/14 08:30

11/05/14 08:30

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-33R2_11042014

Lab Sample ID: 680-106920-1 Date Collected: 11/04/14 10:27

Matrix: Water

Date Received: 11/05/14 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:22	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:22	1
<u> </u>									

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	20		0.50		mg/L			11/07/14 09:38	10
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:32	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-47_11042014

Date Collected: 11/04/14 11:49 Date Received: 11/05/14 08:30 Lab Sample ID: 680-106920-2

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:26	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:26	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	110		5.0		mg/L			11/07/14 09:18	100
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:36	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-49_11042014

Lab Sample ID: 680-106920-3 Date Collected: 11/04/14 14:57

Matrix: Water

Date Received: 11/05/14 08:30

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.7		0.050		mg/L			11/07/14 09:11	1
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:38	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-53_11042014

Lab Sample ID: 680-106920-4 Date Collected: 11/04/14 16:30

Matrix: Water

Date Received: 11/05/14 08:30

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	5.5		0.25		mg/L			11/07/14 09:48	5
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:42	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: TMW-4R_11042014

Date Collected: 11/04/14 09:50

Date Received: 11/05/14 08:30

TestAmerica Job ID: 680-106920-1

Lab Sample ID: 680-106920-5

Matrix: Water

Prepared	Analyzed	Dil Fac	

Method: 6010C - Metals (ICP)								
Analyte	Result	Qualifier	RL	MDL Un	it D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/	/L	11/07/14 14:19	11/10/14 18:31	1
Lead	10	U	10	ug/	/L	11/07/14 14:19	11/10/14 18:31	1
General Chemistry								

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.8		0.25		mg/L			11/07/14 09:48	5
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:43	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-7P_11042014

Date Collected: 11/04/14 11:25

Lab Sample ID: 680-106920-6

Matrix: Water

Date Received: 11/05/14 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	U	ıg/L		11/07/14 14:19	11/10/14 18:35	1
Lead	10	U	10	U	ıg/L		11/07/14 14:19	11/10/14 18:35	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	16		0.50		mg/L			11/07/14 09:48	10
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:44	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: PDMW-48_11042014

Lab Sample ID: 680-106920-7 Date Collected: 11/04/14 14:25

Matrix: Water

Date Received: 11/05/14 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/10/14 00:22	1
Ethylbenzene	1.0	U	1.0		ug/L			11/10/14 00:22	1
Toluene	1.0	U	1.0		ug/L			11/10/14 00:22	1
Xylenes, Total	2.0	U	2.0		ug/L			11/10/14 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130			-		11/10/14 00:22	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					11/10/14 00:22	1
Dibromofluoromethane (Surr)	100		70 - 130					11/10/14 00:22	1
4-Bromofluorobenzene (Surr)	111		70 - 130					11/10/14 00:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Acenaphthylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Chrysene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Fluorene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
1-Methylnaphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
2-Methylnaphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Naphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Phenanthrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/11/14 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			32 - 114				11/10/14 15:53	11/11/14 18:00	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac	
2-Fluorobiphenyl	59		32 - 114	11/10/14 15:53	11/11/14 18:00	1	
Nitrobenzene-d5 (Surr)	68		30 - 117	11/10/14 15:53	11/11/14 18:00	1	
Terphenyl-d14 (Surr)	78		10 - 132	11/10/14 15:53	11/11/14 18:00	1	

Method: 6010C - Metals (ICP)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic		U	20		ug/L		11/07/14 14:19	11/10/14 18:40	1	
Chromium	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:40	1	
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:40	1	
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 18:40	1	
Zinc	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:40	1	

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	22		1.0		mg/L			11/07/14 10:31	20
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:45	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: EW-1_11042014

TestAmerica Job ID: 680-106920-1

11/05/14 16:46

Lab Sample ID: 680-106920-8

Matrix: Water

Date Collected: 11/04/14 15:55 Date Received: 11/05/14 08:30

Nitrate as N

Method: 6010C - Metals (ICP)									
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		20		ug/L		11/07/14 14:19	11/10/14 18:44	1
Chromium	13		10		ug/L		11/07/14 14:19	11/10/14 18:44	1
Lead	10 L	J	10		ug/L		11/07/14 14:19	11/10/14 18:44	1
Nickel	100		40		ug/L		11/07/14 14:19	11/10/14 18:44	1
Zinc	470		20		ug/L		11/07/14 14:19	11/10/14 18:44	1
General Chemistry									
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	540		25		mg/L			11/07/14 09:48	500

0.050

mg/L

0.29

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: MW-202_11042014

Date Collected: 11/04/14 17:00

Lab Sample ID: 680-106920-9 Matrix: Water

Date Received: 11/05/14 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:58	1
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 18:58	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 18:58	1
Zinc	20	U	20		ug/L		11/07/14 14:19	11/10/14 18:58	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.0		0.050		mg/L			11/07/14 09:11	1
Nitrate as N	0.050	U	0.050		mg/L			11/05/14 16:48	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Client Sample ID: TRIP_BLANK_11042014

Lab Sample ID: 680-106920-10 Date Collected: 11/04/14 00:00 **Matrix: Water**

Date Received: 11/05/14 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/10/14 23:40	1
Ethylbenzene	1.0	U	1.0		ug/L			11/10/14 23:40	1
Toluene	1.0	U	1.0		ug/L			11/10/14 23:40	1
Xylenes, Total	2.0	U	2.0		ug/L			11/10/14 23:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130			-		11/10/14 23:40	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130					11/10/14 23:40	1
Dibromofluoromethane (Surr)	101		70 - 130					11/10/14 23:40	1
4-Bromofluorobenzene (Surr)	103		70 - 130					11/10/14 23:40	

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

MR MR

Lab Sample ID: MB 680-357964/8

Matrix: Water

Analysis Batch: 357964

Client Samp	ple ID	: Meth	od Blank
	Prep	Type:	Total/NA

	IND	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/10/14 23:19	1
Ethylbenzene	1.0	U	1.0		ug/L			11/10/14 23:19	1
Toluene	1.0	U	1.0		ug/L			11/10/14 23:19	1
Xylenes, Total	2.0	U	2.0		ug/L			11/10/14 23:19	1

MB MB Limits Surrogate Qualifier Prepared Dil Fac %Recovery Analyzed Toluene-d8 (Surr) 100 70 - 130 11/10/14 23:19 70 - 130 1,2-Dichloroethane-d4 (Surr) 87 11/10/14 23:19 70 - 130 11/10/14 23:19 Dibromofluoromethane (Surr) 106 4-Bromofluorobenzene (Surr) 105 70 - 130 11/10/14 23:19

Lab Sample ID: LCS 680-357964/4

Matrix: Water

Analysis Batch: 357964

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	50.0	45.5		ug/L		91	74 - 123	
Ethylbenzene	50.0	49.1		ug/L		98	78 - 125	
Toluene	50.0	44.4		ug/L		89	77 - 125	
Xylenes, Total	100	102		ug/L		102	80 - 124	

LCS LCS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 70 - 130 101 1,2-Dichloroethane-d4 (Surr) 98 70 - 130 Dibromofluoromethane (Surr) 92 70 - 130 70 - 130 4-Bromofluorobenzene (Surr) 109

Lab Sample ID: LCSD 680-357964/5

Matrix: Water

Analysis Batch: 357964

Client S	Sampl	e ID:	Lab	Con	trol	Samp	le C)up
				Prep	Ту	pe: To	tal/	NA

%Rec. RPD

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50.0	44.3		ug/L		89	74 - 123	3	30
Ethylbenzene	50.0	49.0		ug/L		98	78 - 125	0	30
Toluene	50.0	43.9		ug/L		88	77 - 125	1	30
Xylenes, Total	100	102		ug/L		102	80 - 124	0	30
ICSD ICSD									

LCSD LCSD

Spike

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-357797/10-A

Matrix: Water

Analysis Batch: 358280

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 357797

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		32 - 114	11/10/14 15:53	11/12/14 13:03	1
Nitrobenzene-d5 (Surr)	70		30 - 117	11/10/14 15:53	11/12/14 13:03	1
Terphenyl-d14 (Surr)	106		10 - 132	11/10/14 15:53	11/12/14 13:03	1

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Analysis Batch: 357998

Client	Sample	ID: Lab	o Control	Sample
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Prep Type: Total/NA Prep Batch: 357797

7 min. j 0:0 = mio::: 00:000							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	100	59.3		ug/L		59	32 - 107
Acenaphthylene	100	60.3		ug/L		60	10 - 119
Anthracene	100	66.1		ug/L		66	38 - 112
Benzo[a]anthracene	100	66.5		ug/L		66	36 - 115
Benzo[a]pyrene	100	65.3		ug/L		65	13 - 120
Benzo[b]fluoranthene	100	65.4		ug/L		65	32 _ 117
Benzo[g,h,i]perylene	100	62.4		ug/L		62	21 - 118
Benzo[k]fluoranthene	100	65.7		ug/L		66	28 - 125
Chrysene	100	65.2		ug/L		65	36 - 113
Dibenz(a,h)anthracene	100	63.5		ug/L		64	32 - 115
Fluoranthene	100	69.8		ug/L		70	41 - 113
Fluorene	100	62.3		ug/L		62	39 _ 115
Indeno[1,2,3-cd]pyrene	100	56.4		ug/L		56	16 - 119
1-Methylnaphthalene	100	53.9		ug/L		54	26 - 94
2-Methylnaphthalene	100	54.4		ug/L		54	24 - 92
Naphthalene	100	50.5		ug/L		50	24 - 85
Phenanthrene	100	65.1		ug/L		65	40 - 114
Pyrene	100	66.6		ug/L		67	29 - 118

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Analysis Batch: 357998

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 357797

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	58		32 - 114
Nitrobenzene-d5 (Surr)	60		30 - 117
Terphenyl-d14 (Surr)	91		10 - 132

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-357578/1-A

Matrix: Water

Analysis Batch: 358031 MD MD Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 357578

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:10	1
Chromium	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:10	1
Lead	10	U	10		ug/L		11/07/14 14:19	11/10/14 17:10	1
Nickel	40	U	40		ug/L		11/07/14 14:19	11/10/14 17:10	1
Zinc	20	U	20		ug/L		11/07/14 14:19	11/10/14 17:10	1

Lab Sample ID: LCS 680-357578/2-A Client Sample ID: Lab Control Sample

Matrix: Water

Analysis Batch: 358031

Prep Type: Total/NA

Prep Batch: 357578

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	101		ug/L		101	80 - 120	
Chromium	100	100		ug/L		100	80 - 120	
Lead	500	486		ug/L		97	80 - 120	
Nickel	100	98.4		ug/L		98	80 - 120	
Zinc	100	97.6		ug/L		98	80 - 120	

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-357503/5 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357503

-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.050		mg/L			11/06/14 16:31	1

Lab Sample ID: LCS 680-357503/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 357503

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia		1.00	0.997		mg/L	_	100	90 - 110	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-357132/13

Lab Sample ID: LCS 680-357132/16

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 0.050 11/05/14 16:27 0.050 U mg/L

mg/L

Client Sample ID: Lab Control Sample

75 - 125

Prep Type: Total/NA

Analysis Batch: 357132

Analysis Batch: 357132

Matrix: Water

Analyte

Nitrate as N

Matrix: Water

LCS LCS %Rec. Spike Added Analyte Result Qualifier Unit %Rec Limits Nitrate as N 0.500 0.516 mg/L 103 75 - 125

Lab Sample ID: 680-106920-1 MS Client Sample ID: PDMW-33R2_11042014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 357132 Spike MS MS %Rec. Sample Sample

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Nitrate as N 0.050 U 0.500 0.460 75 _ 125 mg/L

Lab Sample ID: 680-106920-1 MSD Client Sample ID: PDMW-33R2_11042014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357132

RPD Sample Sample Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Limit Nitrate as N 0.050 U 0.500 0.465 93

Lab Sample ID: 680-106920-2 DU Client Sample ID: PDMW-47_11042014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 357132

DU DU Sample Sample RPD Result Qualifier Result Qualifier RPD Limit Analyte Unit Nitrate as N 0.050 Ū 0.050 Ū mg/L NC 30

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 357964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-7	PDMW-48_11042014	Total/NA	Water	8260B	
680-106920-10	TRIP_BLANK_11042014	Total/NA	Water	8260B	
LCS 680-357964/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-357964/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-357964/8	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 357797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-7	PDMW-48_11042014	Total/NA	Water	3520C	
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-357797/10-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 357998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-7	PDMW-48_11042014	Total/NA	Water	8270D	357797
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	8270D	357797

Analysis Batch: 358280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-357797/10-A	Method Blank	Total/NA	Water	8270D	357797

Metals

Prep Batch: 357578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-1	PDMW-33R2_11042014	Total/NA	Water	3010A	<u> </u>
680-106920-2	PDMW-47_11042014	Total/NA	Water	3010A	
680-106920-5	TMW-4R_11042014	Total/NA	Water	3010A	
680-106920-6	PDMW-7P_11042014	Total/NA	Water	3010A	
680-106920-7	PDMW-48_11042014	Total/NA	Water	3010A	
680-106920-8	EW-1_11042014	Total/NA	Water	3010A	
680-106920-9	MW-202_11042014	Total/NA	Water	3010A	
LCS 680-357578/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-357578/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 358031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-1	PDMW-33R2_11042014	Total/NA	Water	6010C	357578
680-106920-2	PDMW-47_11042014	Total/NA	Water	6010C	357578
680-106920-5	TMW-4R_11042014	Total/NA	Water	6010C	357578
680-106920-6	PDMW-7P_11042014	Total/NA	Water	6010C	357578
680-106920-7	PDMW-48_11042014	Total/NA	Water	6010C	357578
680-106920-8	EW-1_11042014	Total/NA	Water	6010C	357578
680-106920-9	MW-202_11042014	Total/NA	Water	6010C	357578
LCS 680-357578/2-A	Lab Control Sample	Total/NA	Water	6010C	357578
MB 680-357578/1-A	Method Blank	Total/NA	Water	6010C	357578

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

General Chemistry

Analysis Batch: 357132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-1	PDMW-33R2_11042014	Total/NA	Water	353.2	
680-106920-1 MS	PDMW-33R2_11042014	Total/NA	Water	353.2	
680-106920-1 MSD	PDMW-33R2_11042014	Total/NA	Water	353.2	
680-106920-2	PDMW-47_11042014	Total/NA	Water	353.2	
680-106920-2 DU	PDMW-47_11042014	Total/NA	Water	353.2	
680-106920-3	PDMW-49_11042014	Total/NA	Water	353.2	
680-106920-4	PDMW-53_11042014	Total/NA	Water	353.2	
680-106920-5	TMW-4R_11042014	Total/NA	Water	353.2	
680-106920-6	PDMW-7P_11042014	Total/NA	Water	353.2	
680-106920-7	PDMW-48_11042014	Total/NA	Water	353.2	
680-106920-8	EW-1_11042014	Total/NA	Water	353.2	
680-106920-9	MW-202_11042014	Total/NA	Water	353.2	
LCS 680-357132/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-357132/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 357503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106920-1	PDMW-33R2_11042014	Total/NA	Water	350.1	_
680-106920-2	PDMW-47_11042014	Total/NA	Water	350.1	
680-106920-3	PDMW-49_11042014	Total/NA	Water	350.1	
680-106920-4	PDMW-53_11042014	Total/NA	Water	350.1	
680-106920-5	TMW-4R_11042014	Total/NA	Water	350.1	
680-106920-6	PDMW-7P_11042014	Total/NA	Water	350.1	
680-106920-7	PDMW-48_11042014	Total/NA	Water	350.1	
680-106920-8	EW-1_11042014	Total/NA	Water	350.1	
680-106920-9	MW-202_11042014	Total/NA	Water	350.1	
LCS 680-357503/4	Lab Control Sample	Total/NA	Water	350.1	
MB 680-357503/5	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-33R2_11042014

Lab Sample ID: 680-106920-1

Date Collected: 11/04/14 10:27 Date Received: 11/05/14 08:30 Matrix: Water

Batch Dil Initial Final Batch Batch Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 3010A 50 mL 357578 11/07/14 14:19 SP TAL SAV 50 mL Total/NA TAL SAV Analysis 6010C 50 mL 50 mL 358031 11/10/14 18:22 BCB 1 Instrument ID: ICPF Total/NA Analysis 350.1 10 2 mL 2 mL 357503 11/07/14 09:38 **JME** TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 357132 11/05/14 16:32 GRX TAL SAV Instrument ID: LACHAT2

Date Collected: 11/04/14 11:49 Matrix: Water

Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358031	11/10/14 18:26	BCB	TAL SAV
	Instrum	ent ID: ICPF								
Total/NA	Analysis	350.1		100	2 mL	2 mL	357503	11/07/14 09:18	JME	TAL SAV
	Instrum	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357132	11/05/14 16:36	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Client Sample ID: PDMW-49_11042014 Lab Sample ID: 680-106920-3

Date Collected: 11/04/14 14:57 Date Received: 11/05/14 08:30

Batch Dil Initial Batch Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 350.1 2 mL 2 mL 357503 11/07/14 09:11 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 357132 11/05/14 16:38 GRX TAL SAV 2 mL Instrument ID: LACHAT2

Date Collected: 11/04/14 16:30 Date Received: 11/05/14 08:30

Prep Type Total/NA	Batch Type Analysis	Batch Method 350.1	Run	Factor 5	Amount 2 mL	Final Amount 2 mL	Batch Number 357503	Prepared or Analyzed 11/07/14 09:48	Analyst JME	Lab TAL SAV
Total/NA	Analysis	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357132	11/05/14 16:42	GRX	TAL SAV

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Matrix: Water

Matrix: Water

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: TMW-4R_11042014 Lab Sample ID: 680-106920-5

Date Collected: 11/04/14 09:50 Matrix: Water Date Received: 11/05/14 08:30

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 3010A 50 mL 50 mL 357578 11/07/14 14:19 SP TAL SAV Total/NA 6010C 358031 50 mL 50 mL 11/10/14 18:31 BCB TAL SAV Analysis 1 Instrument ID: ICPF Total/NA Analysis 350.1 5 2 mL 2 mL 357503 11/07/14 09:48 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 357132 11/05/14 16:43 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: PDMW-7P_11042014 Lab Sample ID: 680-106920-6

Date Collected: 11/04/14 11:25 Matrix: Water

Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 18:35	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	357503	11/07/14 09:48	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357132	11/05/14 16:44	GRX	TAL SAV

Client Sample ID: PDMW-48_11042014 Lab Sample ID: 680-106920-7

Date Collected: 11/04/14 14:25 **Matrix: Water**

Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357964	11/10/14 00:22	CAR	TAL SAV
	Instrume	ent ID: CMSB								
Total/NA	Prep	3520C			255.3 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	255.3 mL	0.5 mL	357998	11/11/14 18:00	LEG	TAL SAV
	Instrume	ent ID: CMSE								
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358031	11/10/14 18:40	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		20	2 mL	2 mL	357503	11/07/14 10:31	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357132	11/05/14 16:45	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: EW-1_11042014

Lab Sample ID: 680-106920-8

Matrix: Water

Date Collected: 11/04/14 15:55 Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 18:44	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		500	2 mL	2 mL	357503	11/07/14 09:48	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357132	11/05/14 16:46	GRX	TAL SAV

Client Sample ID: MW-202_11042014 Lab Sample ID: 680-106920-9

Date Collected: 11/04/14 17:00 Matrix: Water

Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	357578	11/07/14 14:19	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPF		1	50 mL	50 mL	358031	11/10/14 18:58	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	357503	11/07/14 09:11	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357132	11/05/14 16:48	GRX	TAL SAV

Client Sample ID: TRIP_BLANK_11042014 Lab Sample ID: 680-106920-10

Date Collected: 11/04/14 00:00

Date Received: 11/05/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357964	11/10/14 23:40	CAR	TAL SAV
	Instrume	ent ID: CMSB								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

11/13/2014

Matrix: Water

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

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Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106920-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-106920-1

Login Number: 106920 List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer Comme	nt
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-106992-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Subal Horey

Authorized for release by: 11/18/2014 3:49:21 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-106992-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-106992-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 11/6/2014 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 2.8° C.

PDMW-24T_11052014 (680-106992-5): A container for dissolved lead and total lead were received. The lab was instructed to run both analyses.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TMW-1_11052014 (680-106992-6), DUP-1_11052014 (680-106992-7) and TRIP-BLANK_11052014 (680-106992-12) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Method(s) 8260B: The following sample were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory DUP-1_11052014 (680-106992-7), TMW-1_11052014 (680-106992-6), TMW-1_11052014 (680-106992-6 MS), TMW-1_11052014 (680-106992-6 MSD).

Samples TMW-1_11052014 (680-106992-6)[5X] and DUP-1_11052014 (680-106992-7)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples PDMW-40R_11052014 (680-106992-1), MW-204_11052014 (680-106992-2), TMW-1_11052014 (680-106992-6) and DUP-1_11052014 (680-106992-7) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Method(s) 3520C: Samples took more then 2 mL of 1:1 Sulfuric Acid to get to <2.

Naphthalene recovery is outside criteria high for the MSD of sample TMW-1_11052014 (680-106992-6) in batch 680-357998.

Refer to the QC report for details.

METALS (ICP)

Samples PDMW-24T_11052014 (680-106992-5), PDMW-13P_11052014 (680-106992-10) and DUP-2_11052014 (680-106992-11) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

METALS (ICP)

Samples PDMW-23R_11052014 (680-106992-3), MW-3R_11052014 (680-106992-4), PDMW-24T_11052014 (680-106992-5), TMW-1_11052014 (680-106992-6), DUP-1_11052014 (680-106992-7), PDMW-8R_11052014 (680-106992-8), PDMW-10R_11052014 (680-106992-9), PDMW-13P_11052014 (680-106992-10) and DUP-2_11052014 (680-106992-11) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

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Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

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Job ID: 680-106992-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

Arsenic recovery is outside criteria low for the MSD of sample TMW-1_11052014 (680-106992-6) in batch 680-358681. Arsenic and Chromium exceeded the RPD limit.

Refer to the QC report for details.

AMMONIA

Samples PDMW-40R_11052014 (680-106992-1), MW-204_11052014 (680-106992-2), PDMW-23R_11052014 (680-106992-3), MW-3R_11052014 (680-106992-4), TMW-1_11052014 (680-106992-6), DUP-1_11052014 (680-106992-7), PDMW-8R_11052014 (680-106992-8), PDMW-10R_11052014 (680-106992-9), PDMW-13P_11052014 (680-106992-10) and DUP-2_11052014 (680-106992-11) were analyzed for ammonia in accordance with EPA Method 350.1.

Ammonia is outside recovery criteria low for the MS and MSD of sample PDMW-23R_11052014 (680-106992-3) in batch 680-358344.

Ammonia is outside recovery criteria high for the MS and MSD of sample TMW-1_11052014 (680-106992-6) in batch 680-358344.

Refer to the QC report for details.

Samples PDMW-40R_11052014 (680-106992-1)[50X], MW-204_11052014 (680-106992-2)[500X], PDMW-23R_11052014 (680-106992-3)[10X], MW-3R_11052014 (680-106992-4)[5X], TMW-1_11052014 (680-106992-6)[5000X], DUP-1_11052014 (680-106992-7)[2000X], PDMW-8R_11052014 (680-106992-8)[50X], PDMW-10R_11052014 (680-106992-9)[10X] and DUP-2_11052014 (680-106992-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-40R_11052014 (680-106992-1), MW-204_11052014 (680-106992-2), PDMW-23R_11052014 (680-106992-3), MW-3R_11052014 (680-106992-4), TMW-1_11052014 (680-106992-6), DUP-1_11052014 (680-106992-7), PDMW-8R_11052014 (680-106992-8), PDMW-10R_11052014 (680-106992-9), PDMW-13P_11052014 (680-106992-10) and DUP-2_11052014 (680-106992-11) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

Samples TMW-1_11052014 (680-106992-6)[500X] and DUP-1_11052014 (680-106992-7)[500X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Qualifiers

GC/MS VOA

Qualifici Qualifici Docoriptio	Qualifier	Qualifier Descriptio
Qualifier Qualifier Boootipao	Qualifier	Qualifier Descriptio

Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

These commonly used abbreviations may or may not be present in this report.

Glossary Abbreviation

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¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106992-1	PDMW-40R_11052014	Water	11/05/14 09:30	11/06/14 09:55
680-106992-2	MW-204_11052014	Water	11/05/14 09:20	11/06/14 09:55
680-106992-3	PDMW-23R_11052014	Water	11/05/14 10:35	11/06/14 09:55
680-106992-4	MW-3R_11052014	Water	11/05/14 14:48	11/06/14 09:55
680-106992-5	PDMW-24T_11052014	Water	11/05/14 17:07	11/06/14 09:55
680-106992-6	TMW-1_11052014	Water	11/05/14 15:20	11/06/14 09:55
680-106992-7	DUP-1_11052014	Water	11/05/14 00:00	11/06/14 09:55
680-106992-8	PDMW-8R_11052014	Water	11/05/14 10:25	11/06/14 09:55
680-106992-9	PDMW-10R_11052014	Water	11/05/14 11:15	11/06/14 09:55
680-106992-10	PDMW-13P_11052014	Water	11/05/14 13:50	11/06/14 09:55
680-106992-11	DUP-2_11052014	Water	11/05/14 00:00	11/06/14 09:55
680-106992-12	TRIP-BLANK_11052014	Water	11/05/14 00:00	11/06/14 09:55

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Lab Sample ID: 680-106992-1

Client Sample ID: PDMW-40R_11052014

Date Collected: 11/05/14 09:30 **Matrix: Water** Date Received: 11/06/14 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		32 - 114				11/10/14 15:53	11/11/14 18:25	1
Nitrobenzene-d5 (Surr)	60		30 - 117				11/10/14 15:53	11/11/14 18:25	1
Terphenyl-d14 (Surr)	83		10 - 132				11/10/14 15:53	11/11/14 18:25	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	44		2.5		mg/L			11/12/14 11:50	50
Nitrate as N	0.050	U	0.050		mg/L			11/06/14 16:04	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: MW-204_11052014

Date Collected: 11/05/14 09:20 Date Received: 11/06/14 09:55

Nitrate as N

Lab Sample ID: 680-106992-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/11/14 18:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		32 - 114				11/10/14 15:53	11/11/14 18:51	1
Nitrobenzene-d5 (Surr)	51		30 - 117				11/10/14 15:53	11/11/14 18:51	1
Terphenyl-d14 (Surr)	78		10 - 132				11/10/14 15:53	11/11/14 18:51	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	340		25		mg/L			11/12/14 11:30	500

0.050

mg/L

0.050 U

TestAmerica Savannah

11/06/14 16:06

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: PDMW-23R_11052014

Lab Sample ID: 680-106992-3

Date Collected: 11/05/14 10:35 Matrix: Water

Date Received: 11/06/14 09:55

	Method: 6010C - Metals (ICP)									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 19:45	1
	Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 19:45	1
Ē										
Ĺ	General Chemistry									

General Chemistry									
Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.3		0.50		mg/L			11/12/14 11:30	10
Nitrate as N	0.050 U	U	0.050		mg/L			11/06/14 15:40	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: MW-3R_11052014

TestAmerica Job ID: 680-106992-1

Lab Sample ID: 680-106992-4

Matrix: Water

Date Collected: 11/05/14 14:48 Date Received: 11/06/14 09:55

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:15	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 20:15	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 20:15	1
Zinc	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:15	1

General Chemistry						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	6.5		0.25		mg/L			11/11/14 21:00	5
Nitrate as N	0.050	U	0.050		mg/L			11/06/14 16:07	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-24T_11052014

TestAmerica Job ID: 680-106992-1

Lab Sample ID: 680-106992-5

. Matrix: Water

Date Collected: 11/05/14 17:07 Date Received: 11/06/14 09:55

 Method: 6010C - Metals (ICP)

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 10
 U
 10
 ug/L
 11/11/14 10:47
 11/13/14 20:19
 1

 Method: 6010C - Metals (ICP) - Dissolved

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 10
 U
 10
 ug/L
 11/11/14 14:28
 11/13/14 17:52
 1

6

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: TMW-1_11052014

Date Received: 11/06/14 09:55

Lab Sample ID: 680-106992-6 Date Collected: 11/05/14 15:20 **Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	80		5.0		ug/L			11/11/14 14:01	5
Ethylbenzene	5.0	U	5.0		ug/L			11/11/14 14:01	5
Toluene	5.0	U	5.0		ug/L			11/11/14 14:01	5
Xylenes, Total	420		10		ug/L			11/11/14 14:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130					11/11/14 14:01	5
1,2-Dichloroethane-d4 (Surr)	81		70 - 130					11/11/14 14:01	5
Dibromofluoromethane (Surr)	91		70 - 130					11/11/14 14:01	5
4-Bromofluorobenzene (Surr)	110		70 - 130					11/11/14 14:01	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Acenaphthylene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Anthracene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Chrysene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Fluoranthene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Fluorene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
1-Methylnaphthalene	12		9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
2-Methylnaphthalene	16		9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Naphthalene	44		9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Phenanthrene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Pyrene	9.7	U	9.7		ug/L		11/10/14 15:53	11/13/14 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		32 - 114				11/10/14 15:53	11/13/14 20:43	1
Nitrobenzene-d5 (Surr)	56		30 - 117				11/10/14 15:53	11/13/14 20:43	1
Terphenyl-d14 (Surr)	54		10 - 132				11/10/14 15:53	11/13/14 20:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	130		20		ug/L		11/12/14 10:58	11/13/14 13:15	1
Chromium	26		10		ug/L		11/12/14 10:58	11/13/14 13:15	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:15	1
Nickel	41		40		ug/L		11/12/14 10:58	11/13/14 13:15	1
Zinc	97		20		ug/L		11/12/14 10:58	11/13/14 13:15	1

Zinc	97		20		ug/L		11/12/14 10.56	11/13/14 13.13	
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3800		250		mg/L			11/12/14 12:35	5000
Nitrate as N	120		25		mg/L			11/06/14 15:44	500

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: DUP-1_11052014

Date Received: 11/06/14 09:55

Lab Sample ID: 680-106992-7 Date Collected: 11/05/14 00:00 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	77		5.0		ug/L			11/11/14 14:23	5
Ethylbenzene	5.0	U	5.0		ug/L			11/11/14 14:23	5
Toluene	5.0	U	5.0		ug/L			11/11/14 14:23	5
Xylenes, Total	420		10		ug/L			11/11/14 14:23	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			-		11/11/14 14:23	5
1,2-Dichloroethane-d4 (Surr)	79		70 - 130					11/11/14 14:23	5
Dibromofluoromethane (Surr)	90		70 - 130					11/11/14 14:23	5
4-Bromofluorobenzene (Surr)	115		70 - 130					11/11/14 14:23	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Acenaphthylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Chrysene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Fluorene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
1-Methylnaphthalene	12		9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
2-Methylnaphthalene	16		9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Naphthalene	40		9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Phenanthrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

S	urrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-	Fluorobiphenyl	59		32 - 114	1	1/10/14 15:53	11/13/14 21:08	1	
N	itrobenzene-d5 (Surr)	55		30 - 117	1	1/10/14 15:53	11/13/14 21:08	1	
T	erphenyl-d14 (Surr)	69		10 - 132	1	1/10/14 15:53	11/13/14 21:08	1	

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	150		20		ug/L		11/12/14 10:58	11/13/14 13:37	1
Chromium	30		10		ug/L		11/12/14 10:58	11/13/14 13:37	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:37	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:37	1
Zinc	94		20		ug/L		11/12/14 10:58	11/13/14 13:37	1

Zinc	94		20		ug/L		11/12/14 10.56	11/13/14 13.37	'
General Chemistry Analyte	Popult	Qualifier	RL	MDL	Unit	Б	Prepared	Anglyzod	Dil Fac
Analyte	Resuit	Qualifier		IVIDL		D	Prepareu	Analyzed	
Ammonia	3900		100		mg/L			11/12/14 12:09	2000
Nitrate as N	100		25		mg/L			11/06/14 15:56	500

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-8R_11052014

TestAmerica Job ID: 680-106992-1

Lab Sample ID: 680-106992-8

Matrix: Water

Date Received: 11/06/14 09:55

Date Collected: 11/05/14 10:25

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:23	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 20:23	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 20:23	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	94		2.5		mg/L			11/11/14 21:00	50
Nitrate as N	0.050	U	0.050		mg/L			11/06/14 16:08	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: PDMW-10R_11052014

Date Collected: 11/05/14 11:15 Date Received: 11/06/14 09:55 Lab Sample ID: 680-106992-9

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:28	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 20:28	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 20:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	12		0.50		mg/L			11/11/14 21:00	10
Nitrate as N	0.050	U	0.050		mg/L			11/06/14 16:09	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: PDMW-13P_11052014

Date Collected: 11/05/14 13:50

Date Received: 11/06/14 09:55

Lab Sample ID: 680-106992-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:32	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 20:32	1
Lead	33		10		ug/L		11/11/14 10:47	11/13/14 20:32	1
Zinc	20	U	20		ug/L		11/11/14 10:47	11/13/14 20:32	1
Method: 6010C - Metals (ICP)	,	Qualifier	RI	MDI	Unit	n	Prenared	∆ nalvzed	Dil Fa
Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
•	,		RL	MDL	Unit ug/L	<u>D</u>	Prepared 11/11/14 14:28	Analyzed 11/13/14 17:56	Dil Fac
Analyte	Result			MDL		<u>D</u>			Dil Fac
Analyte Lead	Result 10					<u>D</u>			Dil Fac
Analyte Lead General Chemistry	Result 10	U	10		ug/L		11/11/14 14:28	11/13/14 17:56	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: DUP-2_11052014

Lab Sample ID: 680-106992-11 Date Collected: 11/05/14 00:00

Matrix: Water

Date Received: 11/06/14 09:55

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/L		11/11/14 10:47	11/13/14 20:36	1
Nickel	40	U	40	ug/L		11/11/14 10:47	11/13/14 20:36	1
Lead	39		10	ug/L		11/11/14 10:47	11/13/14 20:36	1
Zinc	20	U	20	ug/L		11/11/14 10:47	11/13/14 20:36	1

Method: 6010C - Metals (ICP) - Diss	solved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10	U	10		ug/L		11/11/14 14:28	11/13/14 18:00	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.2		0.10		mg/L			11/12/14 12:00	2
Nitrate as N	0.050	U	0.050		mg/L			11/06/14 16:13	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Client Sample ID: TRIP-BLANK_11052014

Lab Sample ID: 680-106992-12 Date Collected: 11/05/14 00:00 **Matrix: Water**

Date Received: 11/06/14 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 16:51	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 16:51	1
Toluene	1.0	U	1.0		ug/L			11/11/14 16:51	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			_		11/11/14 16:51	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 130					11/11/14 16:51	1
Dibromofluoromethane (Surr)	92		70 - 130					11/11/14 16:51	1
4-Bromofluorobenzene (Surr)	129		70 - 130					11/11/14 16:51	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-357980/7

Matrix: Water

Analysis Batch: 357980

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Toluene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 11:40	1

MB MB Limits Surrogate Qualifier Prepared Dil Fac %Recovery Analyzed 70 - 130 Toluene-d8 (Surr) 99 11/11/14 11:40 82 70 - 130 1,2-Dichloroethane-d4 (Surr) 11/11/14 11:40 Dibromofluoromethane (Surr) 99 70 - 130 11/11/14 11:40 4-Bromofluorobenzene (Surr) 70 - 130 11/11/14 11:40 124

Spike

Added

50.0

50.0

50.0

100

104

ug/L

Lab Sample ID: LCS 680-357980/3

Matrix: Water

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 357980

Client Sample ID: Lab Control Sample Prep Type: Total/NA

80 - 124

LCS LCS %Rec. Result Qualifier Unit %Rec Limits 51.5 103 74 - 123 ug/L 50.1 ug/L 100 78 - 125 49.9 100 77 - 125 ug/L

104

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 680-357980/4

Matrix: Water

Analysis Batch: 357980

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

•	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	50.0	51.8		ug/L		104	74 - 123	1	30	
Ethylbenzene	50.0	51.2		ug/L		102	78 - 125	2	30	
Toluene	50.0	49.7		ug/L		99	77 - 125	0	30	
Xylenes, Total	100	107		ug/L		107	80 - 124	2	30	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	106		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-106992-6 MS

Matrix: Water

Analysis Batch: 357980

Client Sample ID: TMW-1_11052014

Prep Type: Total/NA

		Sample	Sample	Spike	MS	MS				%Rec.	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	80		250	287		ug/L		83	74 - 123	
	Ethylbenzene	5.0	U	250	242		ug/L		95	78 - 125	
	Toluene	5.0	U	250	223		ug/L		89	77 - 125	
	Xylenes, Total	420		500	916		ug/L		98	80 - 124	
1											

MS MS Surrogate Qualifier Limits %Recovery Toluene-d8 (Surr) 102 70 - 130 70 - 130 1,2-Dichloroethane-d4 (Surr) 92 70 - 130 Dibromofluoromethane (Surr) 89 4-Bromofluorobenzene (Surr) 70 - 130 109

Lab Sample ID: 680-106992-6 MSD

Matrix: Water

Analysis Batch: 357980

Client Sample ID: TMW-1_11052014 Prep Type: Total/NA

Alialysis Datcil. 33/300												
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	80		250	287		ug/L		83	74 - 123	0	30	
Ethylbenzene	5.0	U	250	249		ug/L		98	78 ₋ 125	3	30	
Toluene	5.0	U	250	224		ug/L		89	77 - 125	0	30	
Xylenes, Total	420		500	939		ug/L		103	80 _ 124	3	30	

MSD MSD Surrogate Qualifier %Recovery 104 70 - 130 Toluene-d8 (Surr) 1,2-Dichloroethane-d4 (Surr) 94 70 - 130 Dibromofluoromethane (Surr) 91 70 - 130 70 - 130 4-Bromofluorobenzene (Surr) 108

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-357797/10-A

Matrix: Water

Analysis Batch: 358280

Client Sample ID: Method Blank Prep Type: Total/NA **Prep Batch: 357797**

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1

TestAmerica Savannah

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11/18/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-357797/10-A

Matrix: Water

Analysis Batch: 358280

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 357797

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/12/14 13:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	d Analyzed
2-Fluorobiphenyl	61		32 - 114	11/10/14 15	5:53 11/12/14 13:03
Nitrobenzene-d5 (Surr)	70		30 - 117	11/10/14 15	5:53 11/12/14 13:03
Terphenyl-d14 (Surr)	106		10 - 132	11/10/14 15	5:53 11/12/14 13:03

Client Sample ID: Method Blank Prep Type: Total/NA **Prep Batch: 357797**

Analysis Batch: 358569

Matrix: Water

Lab Sample ID: MB 680-357797/10-A

Analysis Batom 500000								i rop Batom	001101
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		32 - 114	11/10/14 15:5	3 11/13/14 19:55	1
Nitrobenzene-d5 (Surr)	60		30 - 117	11/10/14 15:5	3 11/13/14 19:55	1
Terphenyl-d14 (Surr)	109		10 - 132	11/10/14 15:5	3 11/13/14 19:55	1

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Analysis Batch: 357998

Client	Sample	ID: Lab Control Sample
		Prep Type: Total/NA
		Prep Batch: 357797
		%Rec.
D	% Boo	Limite

	Spike	LUS	LCS			%Rec.	
Analyte	Added	l Result	Qualifier Unit	D	%Rec	Limits	
Acenaphthene	100	59.3	ug/L		59	32 - 107	
Acenaphthylene	100	60.3	ug/L		60	10 - 119	
Anthracene	100	66.1	ug/L		66	38 - 112	

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Dil Fac

11/18/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Naphthalene

Phenanthrene

Pyrene

Analysis Batch: 357998

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 357797**

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	100	66.5		ug/L		66	36 - 115
Benzo[a]pyrene	100	65.3		ug/L		65	13 - 120
Benzo[b]fluoranthene	100	65.4		ug/L		65	32 - 117
Benzo[g,h,i]perylene	100	62.4		ug/L		62	21 - 118
Benzo[k]fluoranthene	100	65.7		ug/L		66	28 - 125
Chrysene	100	65.2		ug/L		65	36 - 113
Dibenz(a,h)anthracene	100	63.5		ug/L		64	32 - 115
Fluoranthene	100	69.8		ug/L		70	41 - 113
Fluorene	100	62.3		ug/L		62	39 - 115
Indeno[1,2,3-cd]pyrene	100	56.4		ug/L		56	16 - 119
1-Methylnaphthalene	100	53.9		ug/L		54	26 - 94
2-Methylnaphthalene	100	54.4		ug/L		54	24 - 92

50.5

65.1

66.6

ug/L

ug/L

ug/L

100

100

100

LCS LCS

Surrogate	%Recovery Qualifie	er Limits
2-Fluorobiphenyl	58	32 - 114
Nitrobenzene-d5 (Surr)	60	30 - 117
Terphenyl-d14 (Surr)	91	10 - 132

%Recovery

63

Qualifier

Lab Sample ID: 680-106992-6 MS

Matrix: Water

Surrogate

2-Fluorobiphenyl

Analysis Batch: 357998

Client Sample ID: TMW-1 11052014 Prep Type: Total/NA

24 - 85

40 - 114

29 - 118

50

65

67

Prep Batch: 357797

Sample Sample Spike MS MS %Rec. Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Acenaphthene 9.7 U 94.9 62.9 ug/L 66 32 - 107 Acenaphthylene 9.7 U 94.9 53.6 ug/L 56 10 - 119 U 94.9 59.2 62 38 - 112 Anthracene 9.7 ug/L Benzo[a]anthracene 9.7 U 94.9 49.2 ug/L 52 36 - 115 Benzo[a]pyrene 94.9 43 9.7 U 40.9 ug/L 13 - 120Benzo[b]fluoranthene 94.9 39.4 ug/L 42 32 - 117 9.7 U Benzo[g,h,i]perylene 9.7 U 94.9 38.9 ug/L 41 21 - 118 Benzo[k]fluoranthene 9.7 U 94.9 40.7 ug/L 43 28 - 125 Chrysene 9.7 U 94 9 47 2 ug/L 50 36 - 113 Dibenz(a,h)anthracene U 94.9 35.6 ug/L 38 32 - 115 Fluoranthene 94.9 60.4 64 41 - 113 9.7 U ug/L Fluorene 9.7 U 94.9 69.0 ug/L 73 39 - 115 Indeno[1,2,3-cd]pyrene 9.7 94.9 35.3 ug/L 37 16 - 119 1-Methylnaphthalene 12 94.9 64.5 ug/L 54 26 _ 94 2-Methylnaphthalene 16 94.9 66.9 ug/L 56 24 - 92 Naphthalene 94.9 92.0 ug/L 52 24 - 85 44 71 Phenanthrene 9.7 U 94.9 67.3 ug/L 40 - 114 Pyrene 9.7 U 94.9 60.8 ug/L 29 - 118 MS MS

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Limits 32 - 114

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-106992-6 MS

Matrix: Water

Analysis Batch: 357998

Client Sample ID: TMW-1_11052014

29 - 118

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358064

50

Prep Type: Total/NA

Prep Batch: 357797

Prep Type: Total/NA

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	64		30 - 117
Terphenyl-d14 (Surr)	53		10 - 132

Lab Sample ID: 680-106992-6 MSD Client Sample ID: TMW-1_11052014

Matrix: Water

	Samnle									Batch: 3	
	Janipie	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	9.7	U	93.0	58.2		ug/L		63	32 - 107	8	20
Acenaphthylene	9.7	U	93.0	54.2		ug/L		58	10 - 119	1	20
Anthracene	9.7	U	93.0	55.8		ug/L		60	38 - 112	6	20
Benzo[a]anthracene	9.7	U	93.0	46.1		ug/L		50	36 - 115	6	40
Benzo[a]pyrene	9.7	U	93.0	38.3		ug/L		41	13 - 120	7	40
Benzo[b]fluoranthene	9.7	U	93.0	38.9		ug/L		42	32 - 117	1	50
Benzo[g,h,i]perylene	9.7	U	93.0	36.5		ug/L		39	21 - 118	6	50
Benzo[k]fluoranthene	9.7	U	93.0	35.4		ug/L		38	28 - 125	14	40
Chrysene	9.7	U	93.0	44.6		ug/L		48	36 - 113	6	50
Dibenz(a,h)anthracene	9.7	U	93.0	32.9		ug/L		35	32 - 115	8	40
Fluoranthene	9.7	U	93.0	54.3		ug/L		58	41 - 113	11	40
Fluorene	9.7	U	93.0	63.2		ug/L		68	39 - 115	9	20
Indeno[1,2,3-cd]pyrene	9.7	U	93.0	33.0		ug/L		35	16 - 119	7	40
1-Methylnaphthalene	12		93.0	67.4		ug/L		58	26 - 94	4	50
2-Methylnaphthalene	16		93.0	71.4		ug/L		62	24 - 92	6	30
Naphthalene	44		93.0	129	F1	ug/L		93	24 - 85	34	40
Phenanthrene	9.7	U	93.0	61.6		ug/L		66	40 - 114	9	40

93.0

58.6

ug/L

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	60		32 - 114
Nitrobenzene-d5 (Surr)	61		30 - 117
Ternhenyl-d14 (Surr)	57		10 132

9.7 U

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-358064/1-A

Matrix: Water

Pyrene

Analysis Batch: 358678

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 19:36	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 19:36	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 19:36	1
Zinc	20	U	20		ug/L		11/11/14 10:47	11/13/14 19:36	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

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Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-358064/2-A			Client Sample ID: Lab Control Sample
Matrix: Water			Prep Type: Total/NA
Analysis Batch: 358678			Prep Batch: 358064
	Snika	ICS ICS	%Pac

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	101		ug/L		101	80 - 120	
Lead	500	492		ug/L		98	80 - 120	
Nickel	100	101		ug/L		101	80 - 120	
Zinc	100	104		ug/L		104	80 - 120	

Lab Sample ID: 680-106992-3 MS

Matrix: Water

Analysis Batch: 358678

Sample Sample Spike MS MS

Client Sample ID: PDMW-23R_11052014

Prep Type: Total/NA

Prep Batch: 358064

%Rec.

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	112		ug/L		101	75 - 125	
Lead	10	U	500	484		ug/L		97	75 - 125	

Lab Sample ID: 680-106992-3 MSD Client Sample ID: PDMW-23R_11052014 **Matrix: Water** Prep Type: Total/NA Analysis Batch: 358678 Prep Batch: 358064 MSD MSD Sample Sample Spike %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Limit Arsenic 20 U 100 116 ug/L 104 75 - 125 20 Lead 10 U 500 480 ug/L 96 75 - 125 20

Lab Sample ID: MB 680-358284/1-A

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 358681

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358284

MB MB

	IIID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:06	1
Chromium	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:06	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:06	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:06	1
Zinc	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:06	1

Zinc	20 U	20	ug/L	11/12/14 10:58	11/13/14 13:06	1
Lab Sample ID: LCS 680-358284/2-/	A			Client Sample I	D: Lab Control Sa	ample
Matrix: Water					Prep Type: Tot	al/NA
Analysis Patch: 259691					Drop Patch: 2	E0201

Analysis Batch. 000001							i icp i	Julcii. 000204
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	97.9		ug/L		98	80 - 120	
Chromium	100	101		ug/L		101	80 - 120	
Lead	500	488		ug/L		98	80 - 120	
Nickel	100	99.9		ug/L		100	80 - 120	
Zinc	100	101		ug/L		101	80 - 120	

Lab Sample ID: 680-106992-6 MS							Clie	ent Sam		W-1_11052014
Matrix: Water									Prep 1	ype: Total/NA
Analysis Batch: 358681									Prep	Batch: 358284
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	130		100	247		ug/L		118	75 - 125	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-106992-6 MS

Lab Sample ID: 680-106992-6 MSD

Matrix: Water

Analysis Batch: 358681

Client Sample ID: TMW-1_11052014 Prep Type: Total/NA

Prep Batch: 358284

Sample	Sample	Spike	MS	MS				%Rec.	
Analyte Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium 26		100	130		ug/L		103	75 - 125	
Lead 10	U	500	484		ug/L		97	75 - 125	
Nickel 41		100	136		ug/L		96	75 - 125	
Zinc 97		100	200		ug/L		103	75 - 125	

Client Sample ID: TMW-1_11052014

Matrix: Water

Analysis Batch: 358681

Prep Type: Total/NA Prep Batch: 358284

Alialysis Dalcii. 33000 i									Prep i	Salcii. S	30204
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	130		100	178	F1 F2	ug/L		50	75 - 125	32	20
Chromium	26		100	105	F2	ug/L		79	75 - 125	21	20
Lead	10	U	500	430		ug/L		86	75 - 125	12	20
Nickel	41		100	123		ug/L		83	75 - 125	10	20
Zinc	97		100	180		ug/L		83	75 - 125	10	20

Lab Sample ID: MB 680-358110/1-A Client Sample ID: Method Blank **Matrix: Water Prep Type: Total Recoverable**

Prep Batch: 358110

Analysis Batch: 358681 мв мв

Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead 10 U 10 ug/L 11/11/14 14:28 11/13/14 17:02

Lab Sample ID: LCS 680-358110/2-A

Matrix: Water

Analysis Batch: 358681

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable

Prep Batch: 358110

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits Lead 500 495 80 - 120 ug/L

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-358344/39

Matrix: Water

Matrix: Water

Analysis Batch: 358344

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB

Result Qualifier Analyte RL MDL Unit Dil Fac Prepared Analyzed 0.050 0.050 U 11/12/14 12:00 Ammonia mg/L

Lab Sample ID: LCS 680-358344/38

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 358344

Spike LCS LCS %Rec. Analyte babbA Result Qualifier Unit %Rec Limits Ammonia 1.00 0.998 mg/L 100 90 - 110

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 680-106992-3 MS Client Sample ID: PDMW-23R_11052014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358344

Sample Sample Spike MS MS %Rec. Added Result Qualifier Analyte Result Qualifier Limits Unit %Rec 10.0 90 - 110 Ammonia 2.3 8.56 F1 mg/L 63

Lab Sample ID: 680-106992-3 MSD Client Sample ID: PDMW-23R_11052014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358344

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Ammonia 2.3 10.0 9.72 F1 mg/L 90 - 110

Lab Sample ID: 680-106992-6 MS Client Sample ID: TMW-1_11052014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358344

MS MS Spike %Rec. Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 3800 1000 4890 F1 Ammonia mg/L 111 90 - 110

Lab Sample ID: 680-106992-6 MSD Client Sample ID: TMW-1_11052014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358344

RPD Sample Sample Spike MSD MSD %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Limit 3800 1000 4030 F1 Ammonia mg/L 26 90 _ 110 30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-357378/13 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 357378

MR MR Result Qualifier RLMDL Unit Prepared Dil Fac Analyte Analyzed 0.050 0.050 Nitrate as N U mg/L 11/06/14 15:36

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 680-357378/16 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357378

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Nitrate as N 0.500 0.483 mg/L 97 75 - 125

Lab Sample ID: 680-106992-3 MS Client Sample ID: PDMW-23R_11052014 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 35/3/8										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.050	U	0.500	0.454		mg/L		91	75 - 125	

QC Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-106992-3 MSD Matrix: Water)					(Client S	ample II	D: PDMW-2 Prep T	3R_110 ype: To	
Analysis Batch: 357378									•	•	
•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	0.050	U	0.500	0.456		mg/L		91	75 - 125	0	30
Lab Sample ID: 680-106992-6 MS							Clie	ent Sam	ple ID: TMV	V-1 110	52014
Matrix: Water									Prep T	ype: To	tal/NA
Analysis Batch: 357378									•	•	
•	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Nitrate as N	120		250	328		mg/L		81	75 - 125		

Lab Sample ID: 680-106992-6 MSD Client Sample ID: TMW-1_11052014 **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 357378

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	120		250	326		mg/L		81	75 - 125	0	30

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

GC/MS VOA

Analysis Batch: 357980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-6	TMW-1_11052014	Total/NA	Water	8260B	
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	8260B	
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	8260B	
680-106992-7	DUP-1_11052014	Total/NA	Water	8260B	
680-106992-12	TRIP-BLANK_11052014	Total/NA	Water	8260B	
LCS 680-357980/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-357980/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-357980/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 357797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-1	PDMW-40R_11052014	Total/NA	Water	3520C	
680-106992-2	MW-204_11052014	Total/NA	Water	3520C	
680-106992-6	TMW-1_11052014	Total/NA	Water	3520C	
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	3520C	
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	3520C	
680-106992-7	DUP-1_11052014	Total/NA	Water	3520C	
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-357797/10-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 357998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-1	PDMW-40R_11052014	Total/NA	Water	8270D	357797
680-106992-2	MW-204_11052014	Total/NA	Water	8270D	357797
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	8270D	357797
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	8270D	357797
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	8270D	357797

Analysis Batch: 358280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-357797/10-A	Method Blank	Total/NA	Water	8270D	357797

Analysis Batch: 358569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-6	TMW-1_11052014	Total/NA	Water	8270D	357797
680-106992-7	DUP-1_11052014	Total/NA	Water	8270D	357797
MB 680-357797/10-A	Method Blank	Total/NA	Water	8270D	357797

Metals

Prep Batch: 358064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-3	PDMW-23R_11052014	Total/NA	Water	3010A	
680-106992-3 MS	PDMW-23R_11052014	Total/NA	Water	3010A	
680-106992-3 MSD	PDMW-23R_11052014	Total/NA	Water	3010A	
680-106992-4	MW-3R_11052014	Total/NA	Water	3010A	
680-106992-5	PDMW-24T_11052014	Total/NA	Water	3010A	
680-106992-8	PDMW-8R_11052014	Total/NA	Water	3010A	

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

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Metals (Continued)

Prep Batch: 358064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-9	PDMW-10R_11052014	Total/NA	Water	3010A	
680-106992-10	PDMW-13P_11052014	Total/NA	Water	3010A	
680-106992-11	DUP-2_11052014	Total/NA	Water	3010A	
LCS 680-358064/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-358064/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 358110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-106992-5	PDMW-24T_11052014	Dissolved	Water	3005A	
680-106992-10	PDMW-13P_11052014	Dissolved	Water	3005A	
680-106992-11	DUP-2_11052014	Dissolved	Water	3005A	
LCS 680-358110/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 680-358110/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 358284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-6	TMW-1_11052014	Total/NA	Water	3010A	
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	3010A	
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	3010A	
680-106992-7	DUP-1_11052014	Total/NA	Water	3010A	
LCS 680-358284/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-358284/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 358678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-3	PDMW-23R_11052014	Total/NA	Water	6010C	358064
680-106992-3 MS	PDMW-23R_11052014	Total/NA	Water	6010C	358064
680-106992-3 MSD	PDMW-23R_11052014	Total/NA	Water	6010C	358064
680-106992-4	MW-3R_11052014	Total/NA	Water	6010C	358064
680-106992-5	PDMW-24T_11052014	Total/NA	Water	6010C	358064
680-106992-8	PDMW-8R_11052014	Total/NA	Water	6010C	358064
680-106992-9	PDMW-10R_11052014	Total/NA	Water	6010C	358064
680-106992-10	PDMW-13P_11052014	Total/NA	Water	6010C	358064
680-106992-11	DUP-2_11052014	Total/NA	Water	6010C	358064
LCS 680-358064/2-A	Lab Control Sample	Total/NA	Water	6010C	358064
MB 680-358064/1-A	Method Blank	Total/NA	Water	6010C	358064

Analysis Batch: 358681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-5	PDMW-24T_11052014	Dissolved	Water	6010C	358110
680-106992-6	TMW-1_11052014	Total/NA	Water	6010C	358284
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	6010C	358284
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	6010C	358284
680-106992-7	DUP-1_11052014	Total/NA	Water	6010C	358284
680-106992-10	PDMW-13P_11052014	Dissolved	Water	6010C	358110
680-106992-11	DUP-2_11052014	Dissolved	Water	6010C	358110
LCS 680-358110/2-A	Lab Control Sample	Total Recoverable	Water	6010C	358110
LCS 680-358284/2-A	Lab Control Sample	Total/NA	Water	6010C	358284
MB 680-358110/1-A	Method Blank	Total Recoverable	Water	6010C	358110
MB 680-358284/1-A	Method Blank	Total/NA	Water	6010C	358284

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

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General Chemistry

Analysis Batch: 357378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-1	PDMW-40R_11052014	Total/NA	Water	353.2	_
680-106992-2	MW-204_11052014	Total/NA	Water	353.2	
680-106992-3	PDMW-23R_11052014	Total/NA	Water	353.2	
680-106992-3 MS	PDMW-23R_11052014	Total/NA	Water	353.2	
680-106992-3 MSD	PDMW-23R_11052014	Total/NA	Water	353.2	
680-106992-4	MW-3R_11052014	Total/NA	Water	353.2	
680-106992-6	TMW-1_11052014	Total/NA	Water	353.2	
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	353.2	
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	353.2	
680-106992-7	DUP-1_11052014	Total/NA	Water	353.2	
680-106992-8	PDMW-8R_11052014	Total/NA	Water	353.2	
680-106992-9	PDMW-10R_11052014	Total/NA	Water	353.2	
680-106992-10	PDMW-13P_11052014	Total/NA	Water	353.2	
680-106992-11	DUP-2_11052014	Total/NA	Water	353.2	
LCS 680-357378/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-357378/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 358344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106992-1	PDMW-40R_11052014	Total/NA	Water	350.1	_
680-106992-2	MW-204_11052014	Total/NA	Water	350.1	
680-106992-3	PDMW-23R_11052014	Total/NA	Water	350.1	
680-106992-3 MS	PDMW-23R_11052014	Total/NA	Water	350.1	
680-106992-3 MSD	PDMW-23R_11052014	Total/NA	Water	350.1	
680-106992-4	MW-3R_11052014	Total/NA	Water	350.1	
680-106992-6	TMW-1_11052014	Total/NA	Water	350.1	
680-106992-6 MS	TMW-1_11052014	Total/NA	Water	350.1	
680-106992-6 MSD	TMW-1_11052014	Total/NA	Water	350.1	
680-106992-7	DUP-1_11052014	Total/NA	Water	350.1	
680-106992-8	PDMW-8R_11052014	Total/NA	Water	350.1	
680-106992-9	PDMW-10R_11052014	Total/NA	Water	350.1	
680-106992-10	PDMW-13P_11052014	Total/NA	Water	350.1	
680-106992-11	DUP-2_11052014	Total/NA	Water	350.1	
LCS 680-358344/38	Lab Control Sample	Total/NA	Water	350.1	
MB 680-358344/39	Method Blank	Total/NA	Water	350.1	

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-106992-1

Matrix: Water

Matrix: Water

Matrix: Water

Client Sample ID: PDMW-40R_11052014

Date Collected: 11/05/14 09:30 Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250.5 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSE		1	250.5 mL	0.5 mL	357998	11/11/14 18:25	LEG	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		50	2 mL	2 mL	358344	11/12/14 11:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357378	11/06/14 16:04	GRX	TAL SAV

Client Sample ID: MW-204_11052014 Lab Sample ID: 680-106992-2

Date Collected: 11/05/14 09:20

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			247 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D ent ID: CMSE		1	247 mL	0.5 mL	357998	11/11/14 18:51	LEG	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		500	2 mL	2 mL	358344	11/12/14 11:30	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357378	11/06/14 16:06	GRX	TAL SAV

Client Sample ID: PDMW-23R_11052014 Lab Sample ID: 680-106992-3

Date Collected: 11/05/14 10:35 Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 19:45	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	358344	11/12/14 11:30	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357378	11/06/14 15:40	GRX	TAL SAV

Client Sample ID: MW-3R_11052014 Lab Sample ID: 680-106992-4

Date Collected: 11/05/14 14:48

Date Received: 11/06/14 09:55

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358678	11/13/14 20:15	BCB	TAL SAV
	Instrume	ent ID: ICPE								

TestAmerica Savannah

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11/18/2014

Matrix: Water

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-106992-4

Matrix: Water

Client Sample ID: MW-3R_11052014 Date Collected: 11/05/14 14:48

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	358344	11/11/14 21:00	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357378	11/06/14 16:07	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-24T_11052014 Lab Sample ID: 680-106992-5

Date Collected: 11/05/14 17:07

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	358110	11/11/14 14:28	SP	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 17:52	BCB	TAL SAV
	Instrum	ent ID: ICPF								
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358678	11/13/14 20:19	BCB	TAL SAV
	Instrum	ent ID: ICPE								

Lab Sample ID: 680-106992-6 Client Sample ID: TMW-1_11052014

Date Collected: 11/05/14 15:20

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	357980	11/11/14 14:01	CAR	TAL SAV
	Instrume	ent ID: CMSB								
Total/NA	Prep	3520C			259 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	259 mL	0.5 mL	358569	11/13/14 20:43	LEG	TAL SAV
	Instrume	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	358284	11/12/14 10:58	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 13:15	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		5000	2 mL	2 mL	358344	11/12/14 12:35	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		500	2 mL	2 mL	357378	11/06/14 15:44	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: DUP-1_11052014

Date Collected: 11/05/14 00:00

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	357980	11/11/14 14:23	CAR	TAL SAV
	Instrume	nt ID: CMSB								
Total/NA	Prep	3520C			254 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV

TestAmerica Savannah

Lab Sample ID: 680-106992-7

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Matrix: Water

Matrix: Water

Matrix: Water

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: DUP-1_11052014

Lab Sample ID: 680-106992-7

Matrix: Water

Date Collected: 11/05/14 00:00 Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	254 mL	0.5 mL	358569	11/13/14 21:08	LEG	TAL SAV
	Instrume	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	358284	11/12/14 10:58	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 13:37	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		2000	2 mL	2 mL	358344	11/12/14 12:09	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		500	2 mL	2 mL	357378	11/06/14 15:56	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: PDMW-8R_11052014

Lab Sample ID: 680-106992-8

Date Collected: 11/05/14 10:25 **Matrix: Water** Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrum	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 20:23	BCB	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		50	2 mL	2 mL	358344	11/11/14 21:00	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357378	11/06/14 16:08	GRX	TAL SAV

Client Sample ID: PDMW-10R_11052014 Lab Sample ID: 680-106992-9

Date Collected: 11/05/14 11:15 Matrix: Water

Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 20:28	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	358344	11/11/14 21:00	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357378	11/06/14 16:09	GRX	TAL SAV

Client Sample ID: PDMW-13P_11052014 Lab Sample ID: 680-106992-10

Date Collected: 11/05/14 13:50 **Matrix: Water**

Date Received: 11/06/14 09:55

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	358110	11/11/14 14:28	SP	TAL SAV

Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: PDMW-13P_11052014

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-106992-10

Matrix: Water

Date Collected: 11/05/14 13:50 Date Received: 11/06/14 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Dissolved	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 17:56	BCB	TAL SAV
	Instrum	ent ID: ICPF								
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358678	11/13/14 20:32	BCB	TAL SAV
	Instrum	ent ID: ICPE								
Total/NA	Analysis	350.1		1	2 mL	2 mL	358344	11/12/14 11:21	JME	TAL SAV
	Instrum	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357378	11/06/14 16:12	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Client Sample ID: DUP-2_11052014

Date Collected: 11/05/14 00:00

Date Received: 11/06/14 09:55

Lab Sample ID: 680-106992-11

Lab Sample ID: 680-106992-12

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	358110	11/11/14 14:28	SP	TAL SAV
Dissolved	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 18:00	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358678	11/13/14 20:36	BCB	TAL SAV
	Instrume	ent ID: ICPE								
Total/NA	Analysis	350.1		2	2 mL	2 mL	358344	11/12/14 12:00	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357378	11/06/14 16:13	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: TRIP-BLANK_11052014

Date Collected: 11/05/14 00:00

Date Received: 11/06/14 09:55

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357980	11/11/14 16:51	CAR	TAL SAV
	Instrume	ent ID: CMSB								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

Matrix: Water

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

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Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-106992-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# 202	SHIPMENT INFORMATION	Shipment Method: Lab Counter	Shipment Tracking No:	たけてらーロのでトージ policy	PM. Pat Harrison	Email: barten ance con	Phone: 8458-137Fax	A A A COMMENTS LABUSE	NALYSIS			Cooo Chain of Custody			ال: ال:	N O			MS/MSD		Pb only.	XXX MS/MSD	×××	X Table Subsection) ×	XX Torac & OSS	Comments & Special Analytical Requirements:	1-24T & F	PAMIZYT FO TOTAL & diss. poor	Custody Seal# LAB Log Number 4	INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC TAL-6006 (0509)
D. 049 SEA 7050 E. 049 SEO MEEN	P: 330-497-9396 F: 330-497-0772 13-885-7427 F: 813-885-7049	74-1001 F: 850-478-2671	16-691-2600 F: 716-961-7991 1-5200 F: 708-534-5211	NOI	万冬十	Rd St. 100	6	_				11.00 11.00	×	\=	5 t t t t	S	XXX	XXX	\times	XXX	× 	\times \times \times \times	XXXX	X	XXXX	\times	Shir hill	Date/Time: (Date/Time:	LAB USE: Custody Intact	IVOICE MUST BE SUBMITTED
LABORATORY INFORMATION Trectamerica Squarms - 5402 - 9Rocks Austria Squarms - CA 34404 - D: 040-9	Castamenticula avaneminari o 10z Lantonia Areniue, Sarafiniari, GA 51404 F. 1912-3034-1030 T. 1912-3034-10103 A. DissAmerica North Canton. O 10z March Romano, 10z Advancia Sand-4972 D. 1930-49396 F. 330-497-10 T. 1924-3039 E. 1924-3039 C. 1924-3039 E. 1924-3039	U TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, IR 32514 P. 850-474-1001 F. 8	□ InstAmerica Buttalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 F: 716-961 □ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211	CONSULTANT INFORMATION	Company: Amee E	Address: Address: Rd Stock Rd		Sulfuric Acid Note = 3	•	= Sodium Hydroxide Code = Other	LIQ = Liauid		SOL = Other Solid		Filtered Type Matrix	Y or N Comp Code	N G GW	N 6 6W	N 6 60	N G GW	7 G GW	W 6 GM	W 6 6W	79 9 7	N 6 6W	1 6 GW				2,8cc 28cc	(3 X)
Savannah - 5102 aBooke Aven	North Canton - 4101 Shuffel Dri Tampa - 6712 Benjamin Road, S	Pensacola - 3355 McLemore Dr	Buffalo - 10 Hazelwood Drive, S Chicago - 2417 Bond Street, Un	Proj. State (State of Origin) 6A	avanah		7938	Preservative Codes: 3 = Sulfur	4 ∺	വ വ	S				Sample Collection	Time Sampler	0930 55	1 0920 PG	1 1035 55	4 1448 55	4 1707 33	1 1520 PG	1	4 1025 PG	1 1115 PG	1 1350 PG	Received By: L. A.	Received By:	Received By:	Lab Remarks:	
LABORATO	TestAmerica D TestAmerica	☐ TestAmerica	U lestAmerica TestAmerica	Proj. State (Proj. City:	~	ENVOYWEN !!		0 = No Preservatives	1 = Hydrochloric Acid 2 = Nitric Acid	Matrix Codes:	GW = Groundwater	SW = Surface Water		Containers Sar	Number & Date Type	2 POLYER 11/5/14	Parage 11/5/14	Poly 11/5/14	H1/5/11 M	11 S 14	11/5/114	11 5 11	41/5/11 Mad	aly 1115/114	ok, 111/5/14	she m	13, 69,50 pl	me:	(MB / M 0955	
	CHAIN OF	CUSTODY		IMATION	415575	Hutchinson Islan		Standard 6-13 Days	Specify # Days	Standard 14 Days	Other Deliv:	/el II) EDD Required, Format:		7			-11052214 3	11052011 3 PA	PDMW-23R_1105201412 POLY	11052011 4 POLY	-11052014 2 Polly	-11052014 27	1052014 9	11053011 H	11052011-7	11052014	Daty Tipe:	Date/	Date/Time	Date/T	ORIGINAL - RETURN TO LABORATORY WITH SAMPLES
	S C S S	TRANSPORTATION		CSXT PROJECT INFORMATION	CSXT Project Number: 94155	CSXT Project Name: Hu	CSXT Contact: Sam		1 Day Rush	2 Day Rush 3 Day Rush	Deliverables:	CSXT Standard (Level II)	☐ Level IV	SAMPLE INFORMATION		Sample Identification	PDMW-40R	mw-204-	PDMW-23F	mw-38-11	PDMW-24T.	TMW-1-110	DUP-1-110	PDMW-8R-	PDMW-10R-110522014	PAM4,13P.	Refinduished Bly	Reinquished By	Relinquished By:	Received By/aboratory:	ORIGINAL – RETURN TO LAI

CHAIN OF	7	EABORHALIONY INFORMMALION **Extensional Control of Superior Sevannal, GA 31404 P: 912-354-7858 F: 912-352-0165 **D TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P: 330-497-9396 F: 330-497-0772	AFCHMAI 1ah - 5102 LaF Canton - 4101	Soche Avenue Shuffel Drive	s, Savannah, s NW, North	GA 31404 Canton, OH	P: 912-35	1-7858 F: 330-497-9	912-352- 396 F: 3	0165 30-497-077		COC #	COC # SHIPMENT INFORMATION	
USTOD		U BestAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 F: 813-885-7049 U TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001 F: 850-478-2671	- 6712 Benjan cola - 3355 Mc	nin Road, Su Lemore Driv	ite 100, Tam e, Pensacola	pa, FL 3363 ² , FL 32514	1 P: 813-885-7427 F: 813-885-70 P: 850-474-1001 F: 850-478-2671	385-7427 4-1001 F	F: 813-88	15-7049 2671	Shipr	Shipment Method:	Labcount	5
		■ InstAmerica Buttalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 ■ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 709	o - 10 Hazelwo o - 2417 Bond	od Drive, Sui I Street, Univ	te 106, Amh ersity Park, I	erst, NY 142 L 60466 P	4228 P: 716-691- P: 708-534-5200	691-2600 5200 F. 7	2600 F: 716-961 F: 708-534-5211	F: 716-961-7991 8-534-5211	Shipr	Shipment Tracking No:	ig No:	
	۵	Proj. State (State of Origin)	${f \circ}_{ ext{ inj}}$	マ な	CONSULTANT INFORMATION	ANT INF	ORMAT	N O			Projec	199	hhで5-02h-9:#polot	ולל
CSXT Project Number94155子ら	ď.	Proj. City Savanah	mah		Company: Amer E&I	Ame	下 下	87	111			tat	Pat Herison	
CSXT Project Name: Hutchinson Islo	and				Address &	8	Ezzli	11 Rd	تدا	54 100	Emaii	λt. Σ	Email pat harrison @amec, com	mec, com
ROSS	7	ENVO00	1000017938		Oily. State, Zigh, wille, The	ない。	1	ı	3726	ردا		78)	HE-859(8+9)	
Standard 6-13 Days		Preservative Codes:		3 = Sulfuric Acid	Acid	Z	Note .						COMMENTS	LAB USE
Specify # Days Standard 14 Days		0 = No Preservatives 1 = Hydrochloric Acid		4 = Sodium Thiosulfate 5 = Sodium Hydroxide	Thiosulfa		Pres. Code	2	ЕТНОГ	METHODS FOR ANALYSIS	ANALYS	SI		
Other		2 = Nitric Acid		6 = Other	.					C				
Other Deliv:	2	Matrix Codes:	٠	SO = Soil		LIQ = Liquid		7		<u></u>				***************************************
EDD Bosning Egypot		GW = Groundwater		SL = Sludge	<u>a</u>			011	9	دح				
T redailed, T		ww = waste water SW = Surface Water		Of ≡ Oil SOL = Other Solid	er Solid			15/	ا ل	vle				
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ŏ	Containers	- Sample (Sample Collection	4	Filtered	Type N	Matrix	(!) W	40	3,) 5,)	<u>', r</u>	ム		
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RIP-BLANK-11052014 2	ν.Λ	1112114	1	1	X	1	1					X	\$ 4	
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Date	16/14 71	<u>~</u>	Received By	a TE	ì			Date/Time:	0	27,45	,	nents & C <a \alpha_v<="" td=""><td>Comments & Special Analytical Requirements:</td><td>lequirements:</td>	Comments & Special Analytical Requirements:	lequirements:
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ORIGINAL - RETURN TO LABORATORY WITH SAMPLES		5		9	ď		Ź	OICE ML	IST BE 9	SUBMITTE	D TO CS	XT WITH (INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC	TAL-6006 (0509)

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-106992-1

Login Number: 106992 List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

oreator. Rickinghter, marnyn b		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-107032-1

Client Project/Site: CSX Hutchinson Island VRP

For:

AMEC Environment & Infrastructure, Inc. 2677 Buford Highway Atlanta, Georgia 30324

Attn: Mr. Steve Foley

Subar Horey

Authorized for release by: 11/18/2014 4:41:39 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221 lisa.harvey@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Job ID: 680-107032-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.
Project: CSX Hutchinson Island VRP
Report Number: 680-107032-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 11/7/2014 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.6° C and 5.0° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FB-01_11062014 (680-107032-16), ERB-01_11062014 (680-107032-17) and TRIP-BLANK_11062014 (680-107032-19) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples FB-01_11062014 (680-107032-16), ERB-01_11062014 (680-107032-17) and ERB-02_11062014 (680-107032-18) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows 2 of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: FB-01_11062014 (680-107032-16). These results have been reported and qualified.

METALS (ICP)

Samples PDMW-29D_11062014 (680-107032-12), PDMW-26T_11062014 (680-107032-13), DUP-03_11062014 (680-107032-14), PDMW-32R_11062014 (680-107032-15), FB-01_11062014 (680-107032-16), ERB-01_11062014 (680-107032-17) and ERB-02_11062014 (680-107032-18) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

ALKALINITY

Samples SW-01_11062014_HIGH (680-107032-1), SW-02_11062014_HIGH (680-107032-2), SW-03_11062014_HIGH (680-107032-3), SW-04_11062014_HIGH (680-107032-4), SW-01_11062014_LOW (680-107032-5), SW-02_11062014_LOW (680-107032-6), SW-03_11062014_LOW (680-107032-7) and SW-04_11062014_LOW (680-107032-8) were analyzed for alkalinity in accordance with EPA Method 310.1.

AMMONIA

Samples SW-01_11062014_HIGH (680-107032-1), SW-02_11062014_HIGH (680-107032-2), SW-03_11062014_HIGH (680-107032-3), SW-04_11062014_HIGH (680-107032-4), SW-01_11062014_LOW (680-107032-5), SW-02_11062014_LOW (680-107032-6), SW-03_11062014_LOW (680-107032-7), SW-04_11062014_LOW (680-107032-8), PDMW-51_11062014 (680-107032-9), PDMW-52_11062014 (680-107032-10), PDMW-50_11062014 (680-107032-11), PDMW-29D_11062014 (680-107032-12), PDMW-26T_11062014 (680-107032-13), DUP-03_11062014 (680-107032-14), PDMW-32R_11062014 (680-107032-15), FB-01_11062014 (680-107032-16), ERB-01_11062014 (680-107032-17) and ERB-02_11062014 (680-107032-18) were analyzed for ammonia in accordance with EPA Method 350.1.

Ammonia recovery is outside criteria high for the MS and MSD of sample PDMW-52_11062014 (680-107032-10) in batch 680-359110. Refer to the QC report for details.

Samples PDMW-51_11062014 (680-107032-9)[5X], PDMW-52_11062014 (680-107032-10)[2X], PDMW-50_11062014 (680-107032-11) [10X], PDMW-29D_11062014 (680-107032-12)[10X], PDMW-26T_11062014 (680-107032-13)[500X], DUP-03_11062014

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Case Narrative

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

i estAmenca Job ID.

Job ID: 680-107032-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

(680-107032-14)[500X] and PDMW-32R_11062014 (680-107032-15)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

NITRATE-NITRITE AS NITROGEN

Samples SW-01_11062014_HIGH (680-107032-1), SW-02_11062014_HIGH (680-107032-2), SW-03_11062014_HIGH (680-107032-3), SW-04_11062014_HIGH (680-107032-4), SW-01_11062014_LOW (680-107032-5), SW-02_11062014_LOW (680-107032-6), SW-03_11062014_LOW (680-107032-7), SW-04_11062014_LOW (680-107032-8), PDMW-51_11062014 (680-107032-9), PDMW-52_11062014 (680-107032-10), PDMW-50_11062014 (680-107032-11), PDMW-29D_11062014 (680-107032-12), PDMW-26T_11062014 (680-107032-13), DUP-03_11062014 (680-107032-14), PDMW-32R_11062014 (680-107032-15), FB-01_11062014 (680-107032-16), ERB-01_11062014 (680-107032-17) and ERB-02_11062014 (680-107032-18) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2.

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Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Qualifiers

GC/MS VOA

U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

U Indicates the analyte was analyzed for but not detected.

X Surrogate is outside control limits

Metals

U Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

F1 MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery

CFL Contains Free Liquid

CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration

MDA Minimum detectable activity

EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Sample Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

d	Received	
9:25	11/07/14 08:30	4
9:50	11/07/14 08:30	
9:45	11/07/14 08:30	E
9:20	11/07/14 08:30	5
3:45	11/07/14 08:30	
1:28	11/07/14 08:30	
1:35	11/07/14 08:30	
l:15	11/07/14 08:30	
):35	11/07/14 08:30	
1:45	11/07/14 08:30	8
):51	11/07/14 08:30	
5:37	11/07/14 08:30	9
3:53	11/07/14 08:30	
0:00	11/07/14 08:30	
5:30	11/07/14 08:30	
3:45	11/07/14 08:30	
7:00	11/07/14 08:30	
7-20	11/07/14 08:30	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-107032-1	SW-01_11062014_HIGH	Water	11/06/14 09:25	11/07/14 08:30
680-107032-2	SW-02_11062014_HIGH	Water	11/06/14 09:50	11/07/14 08:30
680-107032-3	SW-03_11062014_HIGH	Water	11/06/14 09:45	11/07/14 08:30
680-107032-4	SW-04_11062014_HIGH	Water	11/06/14 09:20	11/07/14 08:30
680-107032-5	SW-01_11062014_LOW	Water	11/06/14 13:45	11/07/14 08:30
680-107032-6	SW-02_11062014_LOW	Water	11/06/14 14:28	11/07/14 08:30
680-107032-7	SW-03_11062014_LOW	Water	11/06/14 14:35	11/07/14 08:30
680-107032-8	SW-04_11062014_LOW	Water	11/06/14 14:15	11/07/14 08:30
680-107032-9	PDMW-51_11062014	Water	11/06/14 10:35	11/07/14 08:30
680-107032-10	PDMW-52_11062014	Water	11/06/14 11:45	11/07/14 08:30
680-107032-11	PDMW-50_11062014	Water	11/06/14 10:51	11/07/14 08:30
680-107032-12	PDMW-29D_11062014	Water	11/06/14 15:37	11/07/14 08:30
680-107032-13	PDMW-26T_11062014	Water	11/06/14 16:53	11/07/14 08:30
680-107032-14	DUP-03_11062014	Water	11/06/14 00:00	11/07/14 08:30
680-107032-15	PDMW-32R_11062014	Water	11/06/14 15:30	11/07/14 08:30
680-107032-16	FB-01_11062014	Water	11/06/14 16:45	11/07/14 08:30
680-107032-17	ERB-01_11062014	Water	11/06/14 17:00	11/07/14 08:30
680-107032-18	ERB-02_11062014	Water	11/06/14 17:20	11/07/14 08:30
680-107032-19	TRIP-BLANK_11062014	Water	11/06/14 00:00	11/07/14 08:30

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-01_11062014_HIGH

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-1

Matrice Matrice

Matrix: Water

Date Collected: 11/06/14 09:25 Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.16		0.050		mg/L			11/15/14 13:03	1
Nitrate as N	0.25		0.050		mg/L			11/07/14 11:44	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	62		5.0		mg/L			11/13/14 17:01	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: SW-02_11062014_HIGH

Lab Sample ID: 680-107032-2 Date Collected: 11/06/14 09:50

Matrix: Water

Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20		0.050		mg/L			11/15/14 13:03	1
Nitrate as N	0.24		0.050		mg/L			11/07/14 11:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	62		5.0		mg/L			11/13/14 16:54	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Analyzed

11/13/14 16:40

Client Sample ID: SW-03_11062014_HIGH

Lab Sample ID: 680-107032-3 Matrix: Water

Date Collected: 11/06/14 09:45 Date Received: 11/07/14 08:30

Analyte

Alkalinity

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.22		0.050		mg/L			11/15/14 13:03	1
Nitrate as N	0.25		0.050		mg/L			11/07/14 11:50	1

RL

5.0

RL Unit

mg/L

D

Prepared

Result Qualifier

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Dil Fac

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-4

Client Sample ID: SW-04_11062014_HIGH

Date Collected: 11/06/14 09:20 Matrix: Water Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.16		0.050		mg/L			11/15/14 13:13	1
Nitrate as N	0.24		0.050		mg/L			11/07/14 11:54	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	58		5.0		mg/L			11/13/14 17:16	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: SW-01_11062014_LOW

Lab Sample ID: 680-107032-5

Date Collected: 11/06/14 13:45 Date Received: 11/07/14 08:30 . Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.29		0.050		mg/L			11/15/14 13:13	1
Nitrate as N	0.12		0.050		mg/L			11/07/14 11:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	88		5.0		mg/L			11/13/14 16:48	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: SW-02_11062014_LOW Date Collected: 11/06/14 14:28

Lab Sample ID: 680-107032-6 Matrix: Water

Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.40		0.050		mg/L			11/15/14 13:35	1
Nitrate as N	0.085		0.050		mg/L			11/07/14 11:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	87		5.0		mg/L			11/15/14 18:40	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-03_11062014_LOW

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-7

Matrix: Water

Date Collected: 11/06/14 14:35 Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.19		0.050		mg/L			11/15/14 13:35	1
Nitrate as N	0.083		0.050		mg/L			11/07/14 12:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	100		5.0		mg/L			11/15/14 18:48	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-04_11062014_LOW

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-8

Matrix: Water

Date Collected: 11/06/14 14:15 Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.13		0.050		mg/L			11/15/14 13:35	1
Nitrate as N	0.078		0.050		mg/L			11/07/14 12:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	84		5.0		mg/L			11/15/14 17:05	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: PDMW-51_11062014

Date Collected: 11/06/14 10:35 Date Received: 11/07/14 08:30 Lab Sample ID: 680-107032-9

Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	5.7		0.25		mg/L			11/15/14 13:44	5
Nitrate as N	0.050	U	0.050		mg/L			11/07/14 12:02	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-52_11062014

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-10

Matrix: Water

Date Collected: 11/06/14 11:45 Date Received: 11/07/14 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.90		0.10		mg/L			11/15/14 13:30	2
Nitrate as N	0.050	U	0.050		mg/L			11/07/14 12:03	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-50_11062014

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-11

Matrix: Water

Date Collected: 11/06/14 10:51 Date Received: 11/07/14 08:30

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.7		0.50		mg/L			11/15/14 13:44	10
Nitrate as N	0.050	U	0.050		mg/L			11/07/14 12:05	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-29D_11062014

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-12

Matrix: Water

Date Collected: 11/06/14 15:37 Date Received: 11/07/14 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 21:28	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 21:28	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	10		0.50		mg/L			11/15/14 13:44	10
Nitrate as N	0.050	U	0.050		mg/L			11/07/14 12:08	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: PDMW-26T_11062014

Lab Sample ID: 680-107032-13 Date Collected: 11/06/14 16:53

Matrix: Water

Date Received: 11/07/14 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 21:32	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 21:32	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	470		25		mg/L			11/15/14 14:33	500
Nitrate as N	0.051		0.050		mg/L			11/07/14 12:09	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: DUP-03_11062014

Lab Sample ID: 680-107032-14 Date Collected: 11/06/14 00:00

Matrix: Water

Date Received: 11/07/14 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 21:36	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 21:36	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	490		25		mg/L			11/15/14 14:33	500
Nitrate as N	0.070		0.050		mg/L			11/07/14 12:10	1

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: PDMW-32R_11062014

Date Collected: 11/06/14 15:30 Date Received: 11/07/14 08:30 Lab Sample ID: 680-107032-15

Matrix: Water

Method: 6010C - Metals (ICP)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/L		11/11/14 10:47	11/13/14 21:41	1
Nickel	40	U	40	ug/L		11/11/14 10:47	11/13/14 21:41	1
Lead	10	U	10	ug/L		11/11/14 10:47	11/13/14 21:41	1
Zinc	210		20	ug/L		11/11/14 10:47	11/13/14 21:41	1
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General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.0		0.25		mg/L			11/15/14 13:52	5
Nitrate as N	0.050	U	0.050		mg/L			11/07/14 12:12	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: FB-01_11062014

Date Collected: 11/06/14 16:45 Date Received: 11/07/14 08:30 Lab Sample ID: 680-107032-16

. Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 15:47	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 15:47	1
Toluene	1.0	U	1.0		ug/L			11/11/14 15:47	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 15:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130			-		11/11/14 15:47	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 130					11/11/14 15:47	1
Dibromofluoromethane (Surr)	90		70 - 130					11/11/14 15:47	1
4-Bromofluorobenzene (Surr)	126		70 - 130					11/11/14 15:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Acenaphthylene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Anthracene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Chrysene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Fluoranthene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Fluorene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Naphthalene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Phenanthrene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Pyrene	9.6	U	9.6		ug/L		11/10/14 15:53	11/13/14 21:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	38		32 - 114				11/10/14 15:53	11/13/14 21:32	1
Nitrobenzene-d5 (Surr)	24	X	30 - 117				11/10/14 15:53	11/13/14 21:32	1
Terphenyl-d14 (Surr)	98		10 - 132				11/10/14 15:53	11/13/14 21:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		U	20		ug/L		11/12/14 10:58	11/13/14 13:42	1
Chromium	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:42	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:42	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:42	1
Zinc	66		20		ug/L		11/12/14 10:58	11/13/14 13:42	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.050		mg/L			11/15/14 13:03	1
Nitrate as N	0.17		0.050		mg/L			11/07/14 12:13	1

TestAmerica Savannah

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: ERB-01_11062014

Date Collected: 11/06/14 17:00 Date Received: 11/07/14 08:30

Lab Sample ID: 680-107032-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 16:09	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 16:09	1
Toluene	1.0	U	1.0		ug/L			11/11/14 16:09	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130			-		11/11/14 16:09	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 130					11/11/14 16:09	1
Dibromofluoromethane (Surr)	92		70 - 130					11/11/14 16:09	1
4-Bromofluorobenzene (Surr)	125		70 - 130					11/11/14 16:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Acenaphthylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Benzo[a]anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Benzo[a]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Benzo[b]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Benzo[g,h,i]perylene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Benzo[k]fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Chrysene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Dibenz(a,h)anthracene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Fluoranthene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Fluorene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Indeno[1,2,3-cd]pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
1-Methylnaphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
2-Methylnaphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Naphthalene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Phenanthrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Pyrene	9.8	U	9.8		ug/L		11/10/14 15:53	11/13/14 21:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		32 - 114				11/10/14 15:53	11/13/14 21:56	1
Nitrobenzene-d5 (Surr)	35		30 - 117				11/10/14 15:53	11/13/14 21:56	1

Surrogate	%Recovery	Qualifier	Limits	F	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	51		32 - 114	11/	10/14 15:53	11/13/14 21:56	1	
Nitrobenzene-d5 (Surr)	35		30 - 117	11/	10/14 15:53	11/13/14 21:56	1	
Terphenyl-d14 (Surr)	107		10 - 132	11/	10/14 15:53	11/13/14 21:56	1	

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:46	1
Chromium	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:46	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:46	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:46	1
Zinc	61		20		ug/L		11/12/14 10:58	11/13/14 13:46	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.083		0.050		mg/L			11/15/14 13:21	1
Nitrate as N	0.17		0.050		mg/L			11/07/14 12:14	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-18

Client Sample ID: ERB-02_11062014

Date Collected: 11/06/14 17:20 Matrix: Water
Date Received: 11/07/14 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Acenaphthylene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Anthracene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Benzo[a]anthracene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Benzo[a]pyrene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Benzo[b]fluoranthene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Benzo[g,h,i]perylene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Benzo[k]fluoranthene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Chrysene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Dibenz(a,h)anthracene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Fluoranthene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Fluorene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
1-Methylnaphthalene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
2-Methylnaphthalene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Naphthalene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Phenanthrene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Pyrene	9.5	U	9.5		ug/L		11/10/14 15:53	11/13/14 22:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		32 - 114				11/10/14 15:53	11/13/14 22:20	1
Nitrobenzene-d5 (Surr)	50		30 - 117				11/10/14 15:53	11/13/14 22:20	1
Terphenyl-d14 (Surr)	104		10 - 132				11/10/14 15:53	11/13/14 22:20	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:59	1
Chromium	10	H	10		ug/L		11/12/14 10:58	11/13/14 13:59	1

Nitrate as N	0.17		0.050		mg/L			11/07/14 12:15	1
Ammonia	0.052		0.050		mg/L			11/15/14 13:03	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
General Chemistry									
Zinc	53		20	1	ug/L		11/12/14 10:58	11/13/14 13:59	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:59	1
Lead	10	U	10	1	ug/L		11/12/14 10:58	11/13/14 13:59	1

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: TRIP-BLANK_11062014

Lab Sample ID: 680-107032-19 Matrix: Water

Date Collected: 11/06/14 00:00 Date Received: 11/07/14 08:30

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 16:30	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 16:30	1
Toluene	1.0	U	1.0		ug/L			11/11/14 16:30	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130			-		11/11/14 16:30	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 130					11/11/14 16:30	1
Dibromofluoromethane (Surr)	89		70 - 130					11/11/14 16:30	1
4-Bromofluorobenzene (Surr)	127		70 - 130					11/11/14 16:30	1

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-357980/7

Matrix: Water

Analysis Batch: 357980

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Ethylbenzene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Toluene	1.0	U	1.0		ug/L			11/11/14 11:40	1
Xylenes, Total	2.0	U	2.0		ug/L			11/11/14 11:40	1

MB MB Limits Surrogate Qualifier Prepared Dil Fac %Recovery Analyzed 70 - 130 Toluene-d8 (Surr) 99 11/11/14 11:40 82 70 - 130 1,2-Dichloroethane-d4 (Surr) 11/11/14 11:40 Dibromofluoromethane (Surr) 99 70 - 130 11/11/14 11:40 4-Bromofluorobenzene (Surr) 70 - 130 11/11/14 11:40 124

LCS LCS

51.5

50.1

49.9

104

Result Qualifier

ug/L

ug/L

Spike

Added

50.0

50.0

50.0

100

Lab Sample ID: LCS 680-357980/3

Matrix: Water

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 357980

Client Sample ID: Lab Control Sample Prep Type: Total/NA

%Rec. Unit %Rec Limits 103 74 - 123 ug/L ug/L 100 78 - 125

77 - 125

80 - 124

100

104

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 680-357980/4

Matrix: Water

Analysis Batch: 357980

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50.0	51.8		ug/L		104	74 - 123	1	30
Ethylbenzene	50.0	51.2		ug/L		102	78 - 125	2	30
Toluene	50.0	49.7		ug/L		99	77 - 125	0	30
Xylenes, Total	100	107		ug/L		107	80 - 124	2	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	106		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130

TestAmerica Savannah

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

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Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-357797/10-A

Matrix: Water

Analysis Batch: 358569

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 357797

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Acenaphthylene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[a]anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[a]pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[b]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[g,h,i]perylene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Benzo[k]fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Chrysene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Dibenz(a,h)anthracene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Fluoranthene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Fluorene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
1-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
2-Methylnaphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Naphthalene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Phenanthrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
Pyrene	10	U	10		ug/L		11/10/14 15:53	11/13/14 19:55	1
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Surrogate	%Recovery	Qualifier	Limits	Pre	pared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		32 - 114	11/10/	14 15:53	11/13/14 19:55	1
Nitrobenzene-d5 (Surr)	60		30 - 117	11/10/	14 15:53	11/13/14 19:55	1
Terphenvl-d14 (Surr)	109		10 - 132	11/10/	14 15:53	11/13/14 19:55	1

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Analysis Batch: 357998

Client	Cample	ID. I	1 a la	Camtual	Camala
Cilent	Sample	ו :עו	Lab	Control	Sample

Prep Type: Total/NA Prep Batch: 357797

Alialysis Datcii. 33/330							Fieb Datcii	. 331131
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	100	59.3		ug/L		59	32 - 107	
Acenaphthylene	100	60.3		ug/L		60	10 _ 119	
Anthracene	100	66.1		ug/L		66	38 - 112	
Benzo[a]anthracene	100	66.5		ug/L		66	36 _ 115	
Benzo[a]pyrene	100	65.3		ug/L		65	13 - 120	
Benzo[b]fluoranthene	100	65.4		ug/L		65	32 _ 117	
Benzo[g,h,i]perylene	100	62.4		ug/L		62	21 _ 118	
Benzo[k]fluoranthene	100	65.7		ug/L		66	28 - 125	
Chrysene	100	65.2		ug/L		65	36 _ 113	
Dibenz(a,h)anthracene	100	63.5		ug/L		64	32 - 115	
Fluoranthene	100	69.8		ug/L		70	41 - 113	
Fluorene	100	62.3		ug/L		62	39 _ 115	
Indeno[1,2,3-cd]pyrene	100	56.4		ug/L		56	16 - 119	
1-Methylnaphthalene	100	53.9		ug/L		54	26 - 94	
2-Methylnaphthalene	100	54.4		ug/L		54	24 - 92	
Naphthalene	100	50.5		ug/L		50	24 _ 85	
Phenanthrene	100	65.1		ug/L		65	40 _ 114	
Pyrene	100	66.6		ug/L		67	29 - 118	

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Project/Site: CSX Hutchinson Island VRP

Client: AMEC Environment & Infrastructure, Inc.

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-357797/11-A

Matrix: Water

Analysis Batch: 357998

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 357797

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	58		32 - 114
Nitrobenzene-d5 (Surr)	60		30 - 117
Terphenyl-d14 (Surr)	91		10 - 132

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-358064/1-A

Matrix: Water

Analysis Batch: 358678

MD MD

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358064

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/11/14 10:47	11/13/14 19:36	1
Lead	10	U	10		ug/L		11/11/14 10:47	11/13/14 19:36	1
Nickel	40	U	40		ug/L		11/11/14 10:47	11/13/14 19:36	1
Zinc	20	U	20		ug/L		11/11/14 10:47	11/13/14 19:36	1

Lab Sample ID: LCS 680-358064/2-A

Matrix: Water

Analysis Batch: 358678

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 358064

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	 100	101		ug/L		101	80 - 120	 _
Lead	500	492		ug/L		98	80 - 120	
Nickel	100	101		ug/L		101	80 - 120	
Zinc	100	104		ug/L		104	80 - 120	

Lab Sample ID: MB 680-358284/1-A

Matrix: Water

Analysis Batch: 358681

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358284

	MB	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:06	1
Chromium	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:06	1
Lead	10	U	10		ug/L		11/12/14 10:58	11/13/14 13:06	1
Nickel	40	U	40		ug/L		11/12/14 10:58	11/13/14 13:06	1
Zinc	20	U	20		ug/L		11/12/14 10:58	11/13/14 13:06	1

Lab Sample ID: LCS 680-358284/2-A

Matrix: Water

Analysis Batch: 358681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 358284

•	Spike	LCS	LCS		%Rec.	
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits	
Arsenic	100	97.9	ug/L	98	80 - 120	
Chromium	100	101	ug/L	101	80 - 120	
Lead	500	488	ug/L	98	80 - 120	
Nickel	100	99.9	ug/L	100	80 - 120	
7inc	100	101	ua/L	101	80 - 120	

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11/18/2014

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-358636/5

Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water Analysis Batch: 358636

мв мв

Result Qualifier RL RL Unit D Analyzed Dil Fac Analyte Prepared 5.0 11/13/14 15:10 Alkalinity 5.0 U mg/L

Lab Sample ID: LCS 680-358636/6 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358636

LCS LCS %Rec. Spike Added Analyte Result Qualifier Unit %Rec Limits Alkalinity 250 236 mg/L 94 80 - 120

Lab Sample ID: LCSD 680-358636/32 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 358636

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 250 228 80 - 120 Alkalinity mg/L

Lab Sample ID: 680-107032-4 DU Client Sample ID: SW-04_11062014_HIGH Prep Type: Total/NA

Matrix: Water

Analysis Batch: 358636

DU DU RPD Sample Sample Result Qualifier Analyte Result Qualifier Unit Limit 58 mg/L Alkalinity 59.9 30

Lab Sample ID: MB 680-358981/5 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 358981

MR MR

Result Qualifier RL Analyte RL Unit D Dil Fac Prepared Analyzed 5.0 Alkalinity 5.0 U mg/L 11/15/14 16:11

Lab Sample ID: LCS 680-358981/6 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 358981

Spike LCS LCS %Rec. Result Qualifier Added Analyte Unit %Rec Limits 250 98 Alkalinity 246 mg/L 80 - 120

Lab Sample ID: LCSD 680-358981/30 Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 358981

LCSD LCSD RPD Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Alkalinity 250 252 mg/L 101 80 - 120

TestAmerica Savannah

Prep Type: Total/NA

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-359110/11 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 359110

мв мв Result Qualifier Analyte RLMDL Unit D Dil Fac Prepared Analyzed 0.050 11/15/14 13:13 Ammonia 0.050 U mg/L

Lab Sample ID: LCS 680-359110/24 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 359110

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Ammonia 1.00 1.00 mg/L 100 90 - 110

Lab Sample ID: 680-107032-10 MS Client Sample ID: PDMW-52_11062014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 359110

Spike MS MS %Rec. Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ammonia 0.90 1.00 2.33 F1 144 mg/L 90 - 110

Lab Sample ID: 680-107032-10 MSD Client Sample ID: PDMW-52_11062014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 359110

RPD Sample Sample Spike MSD MSD %Rec. Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Limit 0.90 1.00 2.40 F1 mg/L Ammonia 150 90 - 110 30

Lab Sample ID: 680-107032-18 DU Client Sample ID: ERB-02 11062014 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 359110

Sample Sample DU DU RPD Result Qualifier RPD Analyte Result Qualifier Unit Limit 0.052 0.050 Ū Ammonia mg/L 30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-357560/13 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357560

мв мв Result Qualifier RLAnalyte MDL Unit Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 mg/L 11/07/14 11:39

Lab Sample ID: LCS 680-357560/16 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch, 257500

Allalysis Batch. 357500						
	Spike	LCS LCS			%Rec.	
Analyte	Added	Result Qualifi	er Unit	D %Rec	Limits	
Nitrate as N	0.500	0.474	mg/L	95	75 - 125	

QC Sample Results

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Method: 353.2 - Nitrogen	, Nitrate-Nitrite	(Continued)
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Lab Sample ID: 680-107032-1 MS Client Sample ID: SW-01_11062014_HIGH **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357560

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier %Rec Limits Unit Nitrate as N 0.25 0.500 87 75 - 125 0.690 mg/L

Lab Sample ID: 680-107032-1 MSD Client Sample ID: SW-01_11062014_HIGH **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357560

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Limits Limit Unit RPD Nitrate as N 0.25 0.500 0.691 mg/L 87 75 - 125

Lab Sample ID: 680-107032-2 DU Client Sample ID: SW-02_11062014_HIGH **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 357560

DU DU RPD Sample Sample Result Qualifier Limit Analyte Result Qualifier Unit RPD Nitrate as N 0.24 0.237 mg/L 30

QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

GC/MS VOA

Analysis Batch: 357980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-16	FB-01_11062014	Total/NA	Water	8260B	
680-107032-17	ERB-01_11062014	Total/NA	Water	8260B	
680-107032-19	TRIP-BLANK_11062014	Total/NA	Water	8260B	
LCS 680-357980/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-357980/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-357980/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 357797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
680-107032-16	FB-01_11062014	Total/NA	Water	3520C	_
680-107032-17	ERB-01_11062014	Total/NA	Water	3520C	
680-107032-18	ERB-02_11062014	Total/NA	Water	3520C	
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-357797/10-A	Method Blank	Total/NA	Water	3520C	

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Analysis Batch: 357998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-357797/11-A	Lab Control Sample	Total/NA	Water	8270D	357797

Analysis Batch: 358569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-16	FB-01_11062014	Total/NA	Water	8270D	357797
680-107032-17	ERB-01_11062014	Total/NA	Water	8270D	357797
680-107032-18	ERB-02_11062014	Total/NA	Water	8270D	357797
MB 680-357797/10-A	Method Blank	Total/NA	Water	8270D	357797

Metals

Prep Batch: 358064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-12	PDMW-29D_11062014	Total/NA	Water	3010A	
680-107032-13	PDMW-26T_11062014	Total/NA	Water	3010A	
680-107032-14	DUP-03_11062014	Total/NA	Water	3010A	
680-107032-15	PDMW-32R_11062014	Total/NA	Water	3010A	
LCS 680-358064/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-358064/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 358284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
680-107032-16	FB-01_11062014	Total/NA	Water	3010A	
680-107032-17	ERB-01_11062014	Total/NA	Water	3010A	
680-107032-18	ERB-02_11062014	Total/NA	Water	3010A	
LCS 680-358284/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-358284/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 358678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-12	PDMW-29D_11062014	Total/NA	Water	6010C	358064

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Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

Metals (Continued)

Analysis Batch: 358678 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-13	PDMW-26T_11062014	Total/NA	Water	6010C	358064
680-107032-14	DUP-03_11062014	Total/NA	Water	6010C	358064
680-107032-15	PDMW-32R_11062014	Total/NA	Water	6010C	358064
LCS 680-358064/2-A	Lab Control Sample	Total/NA	Water	6010C	358064
MB 680-358064/1-A	Method Blank	Total/NA	Water	6010C	358064

Analysis Batch: 358681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-16	FB-01_11062014	Total/NA	Water	6010C	358284
680-107032-17	ERB-01_11062014	Total/NA	Water	6010C	358284
680-107032-18	ERB-02_11062014	Total/NA	Water	6010C	358284
LCS 680-358284/2-A	Lab Control Sample	Total/NA	Water	6010C	358284
MB 680-358284/1-A	Method Blank	Total/NA	Water	6010C	358284

General Chemistry

Analysis Batch: 357560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
680-107032-1	SW-01_11062014_HIGH	Total/NA	Water	353.2	
680-107032-1 MS	SW-01_11062014_HIGH	Total/NA	Water	353.2	
680-107032-1 MSD	SW-01_11062014_HIGH	Total/NA	Water	353.2	
680-107032-2	SW-02_11062014_HIGH	Total/NA	Water	353.2	
680-107032-2 DU	SW-02_11062014_HIGH	Total/NA	Water	353.2	
680-107032-3	SW-03_11062014_HIGH	Total/NA	Water	353.2	
680-107032-4	SW-04_11062014_HIGH	Total/NA	Water	353.2	
680-107032-5	SW-01_11062014_LOW	Total/NA	Water	353.2	
680-107032-6	SW-02_11062014_LOW	Total/NA	Water	353.2	
680-107032-7	SW-03_11062014_LOW	Total/NA	Water	353.2	
680-107032-8	SW-04_11062014_LOW	Total/NA	Water	353.2	
680-107032-9	PDMW-51_11062014	Total/NA	Water	353.2	
680-107032-10	PDMW-52_11062014	Total/NA	Water	353.2	
680-107032-11	PDMW-50_11062014	Total/NA	Water	353.2	
680-107032-12	PDMW-29D_11062014	Total/NA	Water	353.2	
680-107032-13	PDMW-26T_11062014	Total/NA	Water	353.2	
680-107032-14	DUP-03_11062014	Total/NA	Water	353.2	
680-107032-15	PDMW-32R_11062014	Total/NA	Water	353.2	
680-107032-16	FB-01_11062014	Total/NA	Water	353.2	
680-107032-17	ERB-01_11062014	Total/NA	Water	353.2	
680-107032-18	ERB-02_11062014	Total/NA	Water	353.2	
LCS 680-357560/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-357560/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 358636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-1	SW-01_11062014_HIGH	Total/NA	Water	310.1	
680-107032-2	SW-02_11062014_HIGH	Total/NA	Water	310.1	
680-107032-3	SW-03_11062014_HIGH	Total/NA	Water	310.1	
680-107032-4	SW-04_11062014_HIGH	Total/NA	Water	310.1	
680-107032-4 DU	SW-04_11062014_HIGH	Total/NA	Water	310.1	
680-107032-5	SW-01_11062014_LOW	Total/NA	Water	310.1	

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QC Association Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

General Chemistry (Continued)

Analysis Batch: 358636 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-358636/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-358636/32	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-358636/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 358981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-107032-6	SW-02_11062014_LOW	Total/NA	Water	310.1	
680-107032-7	SW-03_11062014_LOW	Total/NA	Water	310.1	
680-107032-8	SW-04_11062014_LOW	Total/NA	Water	310.1	
LCS 680-358981/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-358981/30	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-358981/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 359110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
680-107032-1	SW-01_11062014_HIGH	Total/NA	Water	350.1	
680-107032-2	SW-02_11062014_HIGH	Total/NA	Water	350.1	
680-107032-3	SW-03_11062014_HIGH	Total/NA	Water	350.1	
680-107032-4	SW-04_11062014_HIGH	Total/NA	Water	350.1	
680-107032-5	SW-01_11062014_LOW	Total/NA	Water	350.1	
680-107032-6	SW-02_11062014_LOW	Total/NA	Water	350.1	
680-107032-7	SW-03_11062014_LOW	Total/NA	Water	350.1	
680-107032-8	SW-04_11062014_LOW	Total/NA	Water	350.1	
680-107032-9	PDMW-51_11062014	Total/NA	Water	350.1	
680-107032-10	PDMW-52_11062014	Total/NA	Water	350.1	
680-107032-10 MS	PDMW-52_11062014	Total/NA	Water	350.1	
680-107032-10 MSD	PDMW-52_11062014	Total/NA	Water	350.1	
680-107032-11	PDMW-50_11062014	Total/NA	Water	350.1	
680-107032-12	PDMW-29D_11062014	Total/NA	Water	350.1	
680-107032-13	PDMW-26T_11062014	Total/NA	Water	350.1	
680-107032-14	DUP-03_11062014	Total/NA	Water	350.1	
680-107032-15	PDMW-32R_11062014	Total/NA	Water	350.1	
680-107032-16	FB-01_11062014	Total/NA	Water	350.1	
680-107032-17	ERB-01_11062014	Total/NA	Water	350.1	
680-107032-18	ERB-02_11062014	Total/NA	Water	350.1	
680-107032-18 DU	ERB-02_11062014	Total/NA	Water	350.1	
LCS 680-359110/24	Lab Control Sample	Total/NA	Water	350.1	
MB 680-359110/11	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Environment & Infrastructure, Inc.

Client Sample ID: SW-01_11062014_HIGH

Project/Site: CSX Hutchinson Island VRP

Lab Sample ID: 680-107032-1

Matrix: Water

Date Collected: 11/06/14 09:25 Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1			358636	11/13/14 17:01	LBH	TAL SAV
	Instrum	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	359110	11/15/14 13:03	JME	TAL SAV
	Instrum	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 11:44	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Client Sample ID: SW-02_11062014_HIGH Lab Sample ID: 680-107032-2

Date Collected: 11/06/14 09:50 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrum	310.1 ent ID: MANTECH		1			358636	11/13/14 16:54	LBH	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		1	2 mL	2 mL	359110	11/15/14 13:03	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 11:48	GRX	TAL SAV

Client Sample ID: SW-03_11062014_HIGH Lab Sample ID: 680-107032-3

Date Collected: 11/06/14 09:45

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1			358636	11/13/14 16:40	LBH	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	359110	11/15/14 13:03	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 11:50	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: SW-04_11062014_HIGH Lab Sample ID: 680-107032-4

Date Collected: 11/06/14 09:20

Date Received: 11/07/14 08:30

Prep Type Total/NA	Batch Type Analysis Instrume	Batch Method 310.1 ant ID: MANTECH	Run	Factor 1	Initial Amount	Final Amount	Batch Number 358636	Prepared or Analyzed 11/13/14 17:16	Analyst LBH	Lab TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	359110	11/15/14 13:13	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 11:54	GRX	TAL SAV

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Matrix: Water

Matrix: Water

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: SW-01_11062014_LOW Lab Sample ID: 680-107032-5

Date Collected: 11/06/14 13:45 **Matrix: Water** Date Received: 11/07/14 08:30

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 310.1 358636 11/13/14 16:48 LBH TAL SAV Instrument ID: MANTECH Total/NA 350.1 2 mL 359110 11/15/14 13:13 JME TAL SAV Analysis 1 2 ml Instrument ID: KONELAB1 Total/NA Analysis 353.2 1 2 ml 357560 11/07/14 11:55 GRX TAL SAV 2 ml Instrument ID: LACHAT2

Client Sample ID: SW-02_11062014_LOW Lab Sample ID: 680-107032-6

Date Collected: 11/06/14 14:28 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	310.1 ent ID: MANTECH		1			358981	11/15/14 18:40	LBH	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	359110	11/15/14 13:35	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 11:56	GRX	TAL SAV

Client Sample ID: SW-03_11062014_LOW Lab Sample ID: 680-107032-7

Date Collected: 11/06/14 14:35 **Matrix: Water**

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1			358981	11/15/14 18:48	LBH	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis	350.1		1	2 mL	2 mL	359110	11/15/14 13:35	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 12:00	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: SW-04_11062014_LOW Lab Sample ID: 680-107032-8

Date Collected: 11/06/14 14:15 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1			358981	11/15/14 17:05	LBH	TAL SAV
	Instrume	ent ID: MANTECH								
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	359110	11/15/14 13:35	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:01	GRX	TAL SAV

TestAmerica Savannah

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Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Client Sample ID: PDMW-51_11062014

Date Collected: 11/06/14 10:35

Lab Sample ID: 680-107032-9

Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	359110	11/15/14 13:44	JME	TAL SAV
	Instrum	ent ID: KONELAB	1							
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 12:02	GRX	TAL SAV
	Instrum	ent ID: LACHAT2								

Lab Sample ID: 680-107032-10

Date Collected: 11/06/14 11:45

Date Received: 11/07/14 08:30

Matrix: Water

Prepared

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		2	2 mL	2 mL	359110	11/15/14 13:30	JME	TAL SAV
	Instrume	ent ID: KONELAB	1							
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:03	GRX	TAL SAV

Client Sample ID: PDMW-50_11062014

Client Sample ID: PDMW-52_11062014

Date Collected: 11/06/14 10:51

Date Received: 11/07/14 08:30

Lab Sample ID:	680-10/032-11
	Matrix: Water

Lab Sample ID: 680-107032-12

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		10	2 mL	2 mL	359110	11/15/14 13:44	JME	TAL SAV
	Instrume	ent ID: KONELA	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 12:05	GRX	TAL SAV
	Instrume	ent ID: LACHAT2	!							

Client Sample ID: PDMW-29D_11062014

Date Collected: 11/06/14 15:37

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 21:28	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		10	2 mL	2 mL	359110	11/15/14 13:44	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:08	GRX	TAL SAV

TestAmerica Savannah

Lab Sample ID: 680-107032-13

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: PDMW-26T_11062014

Date Collected: 11/06/14 16:53 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 21:32	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		500	2 mL	2 mL	359110	11/15/14 14:33	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:09	GRX	TAL SAV

Client Sample ID: DUP-03_11062014 Lab Sample ID: 680-107032-14

Date Collected: 11/06/14 00:00 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrume	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 21:36	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		500	2 mL	2 mL	359110	11/15/14 14:33	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:10	GRX	TAL SAV

Client Sample ID: PDMW-32R_11062014 Lab Sample ID: 680-107032-15

Date Collected: 11/06/14 15:30

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	358064	11/11/14 10:47	SP	TAL SAV
Total/NA	Analysis Instrum	6010C ent ID: ICPE		1	50 mL	50 mL	358678	11/13/14 21:41	BCB	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		5	2 mL	2 mL	359110	11/15/14 13:52	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:12	GRX	TAL SAV

Client Sample ID: FB-01_11062014 Lab Sample ID: 680-107032-16

Date Collected: 11/06/14 16:45 Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357980	11/11/14 15:47	CAR	TAL SAV
	Instrum	ent ID: CMSB								
Total/NA	Prep	3520C			259.2 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV

TestAmerica Savannah

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Matrix: Water

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: CSX Hutchinson Island VRP

Client Sample ID: FB-01_11062014

Lab Sample ID: 680-107032-16

Matrix: Water

Date Collected: 11/06/14 16:45 Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	259.2 mL	0.5 mL	358569	11/13/14 21:32	LEG	TAL SAV
	Instrume	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	358284	11/12/14 10:58	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 13:42	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		1	2 mL	2 mL	359110	11/15/14 13:03	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 12:13	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: ERB-01_11062014

Date Collected: 11/06/14 17:00

Date Received: 11/07/14 08:30

Lab Sample ID: 680-107032-17

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357980	11/11/14 16:09	CAR	TAL SAV
	Instrume	ent ID: CMSB								
Total/NA	Prep	3520C			254.2 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	254.2 mL	0.5 mL	358569	11/13/14 21:56	LEG	TAL SAV
	Instrume	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	358284	11/12/14 10:58	SP	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	358681	11/13/14 13:46	BCB	TAL SAV
	Instrume	ent ID: ICPF								
Total/NA	Analysis	350.1		1	2 mL	2 mL	359110	11/15/14 13:21	JME	TAL SAV
	Instrume	ent ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	357560	11/07/14 12:14	GRX	TAL SAV
	Instrume	ent ID: LACHAT2								

Client Sample ID: ERB-02_11062014

Date Collected: 11/06/14 17:20

Date Received: 11/07/14 08:30

Lab	Sample	ID:	680-107032-18
			Madeley Madee

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			262.3 mL	0.5 mL	357797	11/10/14 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	262.3 mL	0.5 mL	358569	11/13/14 22:20	LEG	TAL SAV
	Instrum	ent ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	358284	11/12/14 10:58	SP	TAL SAV
Total/NA	Analysis Instrum	6010C ent ID: ICPF		1	50 mL	50 mL	358681	11/13/14 13:59	BCB	TAL SAV
Total/NA	Analysis Instrum	350.1 ent ID: KONELAB1		1	2 mL	2 mL	359110	11/15/14 13:03	JME	TAL SAV
Total/NA	Analysis Instrum	353.2 ent ID: LACHAT2		1	2 mL	2 mL	357560	11/07/14 12:15	GRX	TAL SAV

TestAmerica Savannah

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11/18/2014

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Lab Sample ID: 680-107032-19

Client Sample ID: TRIP-BLANK_11062014

Date Collected: 11/06/14 00:00 Matrix: Water

Date Received: 11/07/14 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	357980	11/11/14 16:30	CAR	TAL SAV
	Instrume	ent ID: CMSB								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

CON WITCHIOG COD ID. COC 107002 1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

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Method Summary

Client: AMEC Environment & Infrastructure, Inc. Project/Site: CSX Hutchinson Island VRP

TestAmerica Job ID: 680-107032-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# 200	SHIPMENT INFORMATION	64	1-7991 Shipment Tracking No:	Project #: 6 - 43.00 - 53.44	Q	OD Enail: harrison Agmet Com	Pre-15-18-13-4	COMMENTS LABUSE	FOR ANALYSIS													680-107032 Chain of Custody					OTATE Comments & Special Analytical Requirements:	7.6.20		LAB USE: Custody Intact Custody Seal # LAB Log Number #
	P: 912-354-7858 F: 44720 P: 330-497-9 D: 042-005-7477	:813-883-7427 F: 50-474-1001 F:8		CONSULTANT INFORMATION	Company: FRI	FELL Rd Str (City, State, Zip:	$3 = Sulfuric Acid$ Note $\Rightarrow 3 3 0$	Pres. METHODS	5 = Sodium Hydroxide Code 6 = Other_	oil LIQ = Liquid	ndge (CA)	OI = Oil SOL = Other Solid	77	Filtered Type Matrix	Y or N Comp Code	× × × × × × × × × × × × × × × × × × ×	×××35 3 2 .	× × × 3 2 2	× × × 05 9 2	XXXX 35 9 N	XXX PS 9 N	N 6 SOXXX	X X X 05 0 2	- XX 39 9 コ	××33 9 2	Date Time 1 0	Date/Time:	Date/Time:	101032
LABORATORY INFORMATION	Set-while it as a savanian - 5 10.2 Lakoone Avenue, savanian, L.A. 514.04 Fill Test-Manica North Canton - 410.1 Shuffel Drive NW, North Canton, 1014.4 Tast-durantica Young 1871.9 Benjamin Book Cuite 101 Tawa - 1 2020.1	TestAmerica ranipa - 07.12 benjanim road, suite 100, fainpa, FL 33054 P. El TestAmerica Prenacola, FL 32514 P. El TestAmerica P. El	☐ TestAmerica Burrato - 10 Hazelwood prive, ☐ TestAmerica Chicago - 2417 Bond Street, I	Proj. State (State of Origin)	Proj. City'Savanah	lend	ENVIOSOS117938	Preservative Codes: 3 = Sulf	4	$\begin{vmatrix} 1 = \text{Hydrochloric Acid} & 5 = \text{Sodiun} \\ 2 = \text{Nitric Acid} & 6 = \text{Other} \end{vmatrix}$	Matrix Codes: SO = Soil	GW = Groundwater SL = Sludge	WW = Waste Water SW = Surface Water		ers Sample Collection	· & Date Time Sampler	4 11/6/14 0925/57	4 11/6/14 OPSO JJ	7 11/6/14 OG45 PG	11/6/14 0920	n 116/14 1345 55	4 11/6/14 1428 JS	4 11 16/14 1435 PG	4 11/6/14 1415 PG	11/6/14 1035	4 116/14 1145 PG	Month Mary Mary	114 08,30 Beamed by:	: Beceived By:	4 8:30 Lab Remarks: 480
	CHAIN OF	TRANSPORTATION CUSTODY		CSXT PROJECT INFORMATION	CSXT Project Number: 94 5575	CSXT Project Name: Hutchings Isl	CSXT Contact: Son Ross	Turnaround Time: Standard 6-13 Days	7	2 Day Rush Standard 14 Days 3 Day Rush	Deliverables:	CSXT Standard (Level II)	Level III EDD Required, Format:	SAMPLE INFORMATION	Containers	Sample Identification Number & Type	4-01-11062014-HGH 40-WS	SW-02_11062014_HIGH 4 poly	54-03-11062014-HIGH 4214	5W-04_1106 2014_HIGH 4 poly	5W-01-11062014_LOW 4 poly	5W-02-11062014, LOW 4 poly	5W-03_11062014_10W 40014	54-04-11062014-LOW 4 with		RDMW-52-11062014 3ply	My Maren Marine Desertine of Marine Organization of Marine Organizat	Pinquishe English (Date/Time:	Relinquished By:	DateTime:

Comments & Special Analytical Requirements:

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ERB-01-11062014 FRB-02-11062014 TRIP-BLANK-11062014

LAB Log Number INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC Custody Seal # Custody Intact LAB USE: Date/Time: 680-107632 Lab Remarks: 8;30 主 Date/Time: **DRN TO LABORATORY WITH SAMPLES** By Laborat

		,	LABORATORY INFORMATION	INFORMAT	NO.			l						*	#		
		/	TestAmerica Savannah - 5102 LaBoche Avenue. Savannah. GA 31404	nnah - 5102 La	Roche Avenue	. Savannah.	1	912-354	-7858	P: 912-354-7858 F: 912-352-0165	2-0165	Ī		֭֓֞֞֝֜֜֜֜֓֓֓֓֓֓֓֓֓֓֓֜֜֜֓֓֓֓֡֓֜֜֓֓֡֓֓֡֓֜֡֓֡֓֡֓֡֓֡֓֡֓֡֓֡֓֡֡֡֡֡		١	
きじし	HO NIAHO		TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P: 330-497-9396 F: 330-497-0772	1 Canton - 410	Shuffel Driv	e NW, North C	anton, 0H 447	20 P:	330-497-	9396 F	330-49	-0772	SHIPN	ENT	SHIPMENT INFORMATION		
		5	TestAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 F: 813-885-7049	a - 6712 Benja	min Road, Su	te 100, Tamp	a, FL 33634	P: 813-8	85-7427	F: 813	-885-704						
TRANSPORTATION	CUSTODY	۵	☐ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001 F: 850-478-2671	acola - 3355 M	cLemore Driv	e, Pensacola,	FL 32514 P:	850-474	1-1001	F: 850-47	78-2671		Shipme	nt Metho	Shipment Method:	رو	
			☐ TestAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, MY 14228 P: 716-691-2600 F: 716-961-7991 ☐ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211	.lo - 10 Hazelw tgo - 2417 Bon	ood Drive, Sui d Street, Univ	te 106, Amhe ersity Park, II	rst, NY 14228 . 60466 P: 7	P: 716 38-534-5	-691-260 200 F:	00 F: 71 708-534	6-961-7	991	Shipme	Shipment Tracking No:	ing No:	, :	
CSXT PROJECT INFORMATION	IATION		Proj. State (State of Origin)	of Origin)		CONSULT	CONSULTANT INFORMATION	MATI	ا ا				Project #:		MC5-0084-9	2	757
CSXT Project Number: 941SS75	115575		Proj. City:	2		Sompany:	Company: R&L	Ø	14				Š Ø	7	PM: Pat Harrison		-
CSXT Project Name: Hetechinson Itsland	thinson I	Sland				15 C	13800 Ezell Rd St-100	1	200	3	2		Email:	بخرا	nali:	8	76. 2. CON
CSXT Contact: Sam	5an Ross	, a	ZNV6000117938	11799		N State	CHY Btate ZID 1/2 / ZTO 1	F	13	75) (4	8)6	P678)658-1374	5	j
Turnaround Time:	Standard 6-13 Days	Days	Preservative Codes:		3 = Sulfuric Acid	: Acid	No	1	Note ■ 3 30	0				_	COMMENTS	TS	LAB USE
1 Day Rush	Specify # Days	8	0 = No Preservatives		4 = Sodium Thiosulfate	n Thiosulfa	ite Pres.	<u>ن</u> ي زي		METH	DDS F	METHODS FOR ANALYSIS	ALYSIS				
2 Day Rush 3 Day Rush	Standard 14 Days Other	lays	1 = Hydrochloric Acid 2 = Nitric Acid		5 = Sodium Hydroxide 6 = Other	Hydroxid	е Софе	<u>ම</u>									
Deliverables:	Other Deliv:		Matrix Codes:		SO = Soil		LIQ = Liquid								i construit		
CSXT Standard (Level II)	()		GW = Groundwater		SL = Sludge			_	~								
Level III	EDD Required, Format:	I, Format:	WW = Waste V		0I = 0i				ما ۱۸:								
Level IV			SW = Surface	Water	SOL = Other Solid	er Solid			10°	₹d				,X 5	_		
SAMPLE INFORMATION								Γ	71 W	1	1	1	-	Ή,	~		
		Containers	Sample	e Collection		Filtered	Type Matrix	ΙΞ	ご、	S.	1.	٨,	入	1	1 (
Sample Identification 9	fication	Number & Type	Date	Time	Sampler	Y or N O	Comp or Grab	de <)H	A	1	2	2	8 11	a		
	Hersoll	3 poly	1119/u	1051 33	22	2	9 9	(M)	×	N N	7 X	M-2-11 (CO) 011 + (M)	711-6	*	No As Pb	Pa	
	>_11062014	4 poly	11 6 [14	1537 73	33	7	9	(mg	<u> </u>	X							
Pomes-26T 11062014 4,00/4 11/6/144	T_ 11062014	4,00gh	गांदियभ	1653 23	2	Z	5 5	1 MS	×	×							
DUP-03_1106 2014	H108 %	they h	4 poly 11/6/14	1	75	Z	9 9	, MS	メ	X							
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Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-107032-1

Login Number: 107032 List Source: TestAmerica Savannah

List Number: 1

Creator: West, Lauren H

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-112658-1

Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

Sidal Horey

Authorized for release by: 5/21/2015 3:30:06 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

----- LINKS -----

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Job ID: 680-112658-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Foster Wheeler E & I, Inc
Project: CSX GA, Hutchinson Island, VRP
Report Number: 680-112658-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 05/19/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.4 C.

AMMONIA

Samples PDMW-52_05182015 (680-112658-1), PDMW-51_05182015 (680-112658-2) and PDMW-49_05182015 (680-112658-3) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/20/2015.

Sample PDMW-51_05182015 (680-112658-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-52_05182015 (680-112658-1), PDMW-51_05182015 (680-112658-2) and PDMW-49_05182015 (680-112658-3) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 05/19/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

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Qualifiers

General Chemistry

Not Calculated

Quality Control

Relative error ratio

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

U Indicates the analyte was analyzed for but not detected.

Glossary

NC

ND PQL

QC

RL

RER

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

TestAmerica Savannah

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-112658-1	PDMW-52_05182015	Water	05/18/15 14:40	05/19/15 08:30
680-112658-2	PDMW-51_05182015	Water	05/18/15 16:00	05/19/15 08:30
680-112658-3	PDMW-49_05182015	Water	05/18/15 16:15	05/19/15 08:30

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Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Date Collected: 05/18/15 14:40 Matrix: Water

Date Received: 05/19/15 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.58		0.25		mg/L			05/20/15 12:23	1
Nitrate as N	0.050	U	0.050		mg/L			05/19/15 16:29	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/19/15 16:29	1
Nitrite as N	0.050	U	0.050		mg/L			05/19/15 16:29	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Nitrate Nitrite as N

Nitrite as N

TestAmerica Job ID: 680-112658-1

05/19/15 16:30

05/19/15 16:30

Date Collected: 05/18/15 16:00 Matrix: Water Date Received: 05/19/15 08:30

General Chemistry Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac **Ammonia** 3.0 0.50 mg/L 05/20/15 12:32 Nitrate as N 0.050 U 0.050 mg/L 05/19/15 16:30

0.050

0.050

mg/L

mg/L

0.050 U

0.050 U

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Lab Sample ID: 680-112658-3

Matrix: Water

Client Sample ID: PDMW-49_05182015 Date Collected: 05/18/15 16:15

Date Received: 05/19/15 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.63		0.25		mg/L			05/20/15 12:24	1
Nitrate as N	0.050	U	0.050		mg/L			05/19/15 16:31	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/19/15 16:31	1
Nitrite as N	0.050	U	0.050		mg/L			05/19/15 16:31	1

TestAmerica Job ID: 680-112658-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

estAmenca Job ID. 000-112030-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-384034/28

Matrix: Water

Client Sample ID: Method Blank
Prep Type: Total/NA

Analysis Batch: 384034

 Analyte
 Result Ammonia
 Qualifier Unit
 RL O.25
 MDL Mg/L
 Unit Mg/L
 D Mprepared Mg/L
 Analyzed Analyzed Mg/L
 Dil Fac Dis/20/15 12:28
 1

Lab Sample ID: LCS 680-384034/35

Client Sample ID: Lab Control Sample
Matrix: Water

Prep Type: Total/NA

Analysis Batch: 384034

 Analyte
 Added Ammonia
 Result 1.00
 Qualifier 0.994
 Unit mg/L
 D 99 90 - 110
 %Rec.

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-383888/13

Matrix: Water

Archeric Betch: 202000

Analysis Batch: 383888

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 05/19/15 15:42 mg/L Nitrate Nitrite as N 0.050 U 0.050 mg/L 05/19/15 15:42 Nitrite as N 0.050 U 0.050 mg/L 05/19/15 15:42

Lab Sample ID: LCS 680-383888/16

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 383888

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	 0.500	0.545		mg/L		109	75 - 125	
Nitrate Nitrite as N	1.00	1.05		mg/L		105	90 - 110	
Nitrite as N	0.500	0.509		mg/L		102	90 - 110	

5/21/2015

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

3

General Chemistry

Analysis Batch: 383888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112658-1	PDMW-52_05182015	Total/NA	Water	353.2	
680-112658-2	PDMW-51_05182015	Total/NA	Water	353.2	
680-112658-3	PDMW-49_05182015	Total/NA	Water	353.2	
LCS 680-383888/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-383888/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 384034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112658-1	PDMW-52_05182015	Total/NA	Water	350.1	
680-112658-2	PDMW-51_05182015	Total/NA	Water	350.1	
680-112658-3	PDMW-49_05182015	Total/NA	Water	350.1	
LCS 680-384034/35	Lab Control Sample	Total/NA	Water	350.1	
MB 680-384034/28	Method Blank	Total/NA	Water	350.1	

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Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Client Sample ID: PDMW-52 05182015

Lab Sample ID: 680-112658-1

Matrix: Water

Date Collected: 05/18/15 14:40 Date Received: 05/19/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1	 1	1	2 mL	2 mL	384034	05/20/15 12:23	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	383888	05/19/15 16:29	GRX	TAL SAV

Lab Sample ID: 680-112658-2

Client Sample ID: PDMW-51_05182015 Date Collected: 05/18/15 16:00 **Matrix: Water**

Date Received: 05/19/15 08:30

Prep Type Total/NA	Batch Type Analysis Instrume	Batch Method 350.1 nt ID: KONELAB	Run 1	Pactor 2	Initial Amount 2 mL	Final Amount 2 mL	Batch Number 384034	Prepared or Analyzed 05/20/15 12:32	Analyst JME	Lab TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	383888	05/19/15 16:30	GRX	TAL SAV

Lab Sample ID: 680-112658-3 **Client Sample ID: PDMW-49_05182015 Matrix: Water**

Date Collected: 05/18/15 16:15

Date Received: 05/19/15 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB	1	1	2 mL	2 mL	384034	05/20/15 12:24	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	383888	05/19/15 16:31	GRX	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

LAB Log Number INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC Custody Seal # Custody Intact LAB USE: Lab Remarks: Date/Time: ORIGINAL - RETURN TO LABORATORY WITH SAMPLES Received By Laboratory: 5/21/2015

patihanson@anceful, con LAB USE Comments & Special Analytical Requirements: とているこ Project # 6-4300-5245 COMMENTS PM: Pat Harrissa SHIPMENT INFORMATION (678)658-1374 Shipment Tracking No: Shipment Method: 680-112658 Chain of Custody # 000 METHODS FOR ANALYSIS 1870 EstAmerica Savannah - 5102 LaRoche Avenue, Savannah, 6A 31404 P. 912-354-7858 F. 912-352-0165 □ TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P· 330-497-9996 F· 830-497-0772 ☐ TestAmerica Tampa - 6712 Benjamin Road, Sutte 100, Tampa, FL 33634 P: 813-885-7427 F: 813-885-7049 ☐ TestAmerica Pensacola - 3355 Miclemore Drive, Pensacola, FL 32514 P: 850-474-1001 F: 850-478-2671 ☐ TestAmerica Buffalo - 10 Hazalwood Drive, Suite 106, Amherst, NY 14223 P: 716-891-2600 F: 716-861-7991 Company. Armee Foster Wheeler Addes Eall Rd St. 100 City, State, Zig. of all Jay 37211 TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708-534-5211 0/3 0/3 X X 0 CONSULTANT INFORMATION Note 🖚 3 3 60 3 Code Pres. Code Type | Matrix LIQ = Liquid Comp or Grab 9 J S 4 = Sodium Thiosulfate 5 = Sodium Hydroxide Filtered SOL = Other Solid Sampler Y or N 3 = Sulfuric Acid Z て ス SL = Sludge SO = Soll 6 = Other الم 0 = 0 り 5/15/15/1600 96 Proj State (State of Origin) & A LABORATORY INFORMATION FNY COCO 120647 1440 Proj. City: Savarnah 2 Sample Collection 5/18/15/16/5 Time Preservative Codes: 0 = No Preservatives 1 = Hydrochloric Acid SW = Surface Water WW = Waste Water GW = Groundwater 5 18 15 Matrix Codes: 2 = Nitric Acid 07/0 Date 3 poly に置め Island 3 poly 3 poly Containers Number & EDD Required, Format: Date/Time; Date/Time: Standard 6-13 Days CHAIN OF CUSTODY Standard 14 Days Specify # Days 51028150 PDMW-51-05182015 Other Deliv: PMW-52_05182015 CSXT Project Number: 9415575 CSXT Project Name Hatchinsen Other _ Ross Deliverables:
CSXT Standard (Level II) **CSXT PROJECT INFORMATION** Sample Identification SAMPLE INFORMATION CSXT Contact Scm PDMW-49 Turnaround Time: 1 Day Rush 2 Day Rush 3 Day Rush Level IV Relinquished By: inquished

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc Job Number: 680-112658-1

Login Number: 112658 List Source: TestAmerica Savannah

List Number: 1

Creator: White, Menica R

Creator. Writte, Meriica K		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112658-1

Laboratory: TestAmerica Savannah The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-112692-1

Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

Sida Hovey

Authorized for release by: 5/26/2015 3:04:36 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Job ID: 680-112692-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Foster Wheeler E & I, Inc
Project: CSX GA, Hutchinson Island, VRP
Report Number: 680-112692-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 05/20/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

A dissolved metals container for ID: PDMW-13P_05192015 was received, however, was not listed on COC. The lab was instructed to put this sample on hold, pending test results for total metals.

METALS (ICP)

Samples PDMW-13P_05192015 (680-112692-1), PDMW-7P_05192015 (680-112692-2), PDMW-32R_05192015 (680-112692-3), TMW-4R_05192015 (680-112692-4), PDMW-23R_05192015 (680-112692-5), MW-3R_05192015 (680-112692-7) and MW-2_05192015 (680-112692-10) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared and analyzed on 05/22/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples PDMW-13P_05192015 (680-112692-1), PDMW-7P_05192015 (680-112692-2), PDMW-32R_05192015 (680-112692-3), TMW-4R_05192015 (680-112692-4), PDMW-23R_05192015 (680-112692-5), PDMW-50_05192015 (680-112692-6), MW-3R_05192015 (680-112692-7), PDMW-53_05192015 (680-112692-8), PDMW-48_05192015 (680-112692-9) and MW-2_05192015 (680-112692-10) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/21/2015.

Samples PDMW-13P_05192015 (680-112692-1)[2X], PDMW-7P_05192015 (680-112692-2)[10X], TMW-4R_05192015 (680-112692-4) [5X], PDMW-50_05192015 (680-112692-6)[5X], PDMW-48_05192015 (680-112692-9)[5X] and MW-2_05192015 (680-112692-10)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-13P_05192015 (680-112692-1), PDMW-7P_05192015 (680-112692-2), PDMW-32R_05192015 (680-112692-3), TMW-4R_05192015 (680-112692-4), PDMW-23R_05192015 (680-112692-5), PDMW-50_05192015 (680-112692-6), MW-3R_05192015 (680-112692-7), PDMW-53_05192015 (680-112692-8), PDMW-48_05192015 (680-112692-9) and MW-2_05192015 (680-112692-10) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 05/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Qualifiers

Metals

U Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-112692-1	PDMW-13P_05192015	Water	05/19/15 09:43	05/20/15 08:15
680-112692-2	PDMW-7P_05192015	Water	05/19/15 09:00	05/20/15 08:15
680-112692-3	PDMW-32R_05192015	Water	05/19/15 10:56	05/20/15 08:15
680-112692-4	TMW-4R_05192015	Water	05/19/15 10:05	05/20/15 08:15
680-112692-5	PDMW-23R_05192015	Water	05/19/15 11:05	05/20/15 08:15
680-112692-6	PDMW-50_05192015	Water	05/19/15 14:38	05/20/15 08:15
680-112692-7	MW-3R_05192015	Water	05/19/15 14:50	05/20/15 08:15
680-112692-8	PDMW-53_05192015	Water	05/19/15 16:08	05/20/15 08:15
680-112692-9	PDMW-48_05192015	Water	05/19/15 16:25	05/20/15 08:15
680-112692-10	MW-2_05192015	Water	05/19/15 17:00	05/20/15 08:15

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Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Client Sample ID: PDMW-13P_05192015

Date Collected: 05/19/15 09:43 Date Received: 05/20/15 08:15 Lab Sample ID: 680-112692-1

Matrix: Water

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/L	05/22/15 09:35	05/22/15 20:30	1
Lead	10	U	10	ug/L	05/22/15 09:35	05/22/15 20:30	1
Nickel	40	U	40	ug/L	05/22/15 09:35	05/22/15 20:30	1
Zinc	20	U	20	ug/L	05/22/15 09:35	05/22/15 20:30	1

L									
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.7		0.50		mg/L			05/21/15 09:08	2
Nitrate as N	0.050	U	0.050		mg/L			05/20/15 14:54	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/15 14:54	1
Nitrite as N	0.050	Ü	0.050		mg/L			05/20/15 14:54	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

3

Client Sample ID: PDMW-7P_05192015

Date Collected: 05/19/15 09:00 Date Received: 05/20/15 08:15

General Chemistry

Analyte

Ammonia

Nitrate as N

Nitrite as N

Nitrate Nitrite as N

Lab Sample ID: 680-112692-2

Matrix: Water

Method: 6010C - Metals (ICP)								
Analyte	Result	Qualifier	RL	MDL U	Unit I	D Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ī	ug/L	05/22/15 09:35	05/22/15 21:02	1
Lead	10	U	10	ι	ug/L	05/22/15 09:35	05/22/15 21:02	1

RL

2.5

0.050

0.050

0.050

MDL Unit

mg/L

mg/L

mg/L

mg/L

Result Qualifier

16

0.050 U

0.050 U

0.11

05/20/15 14:58

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

2

Client Sample ID: PDMW-32R_05192015

Date Collected: 05/19/15 10:56 Date Received: 05/20/15 08:15 Lab Sample ID: 680-112692-3

Matrix: Water

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL Ur	nit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug	/L	_	05/22/15 09:35	05/22/15 21:06	1
Lead	10	U	10	ug	/L		05/22/15 09:35	05/22/15 21:06	1
Nickel	40	U	40	ug	/L		05/22/15 09:35	05/22/15 21:06	1
Zinc	110		20	ug	/L		05/22/15 09:35	05/22/15 21:06	1

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General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.70		0.25		mg/L			05/21/15 08:51	1
Nitrate as N	0.050	U	0.050		mg/L			05/20/15 15:03	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/15 15:03	1
Nitrite as N	0.050	U	0.050		mg/L			05/20/15 15:03	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Client Sample ID: TMW-4R_05192015

Date Collected: 05/19/15 10:05 Date Received: 05/20/15 08:15 Lab Sample ID: 680-112692-4

Matrix: Water

Method: 6010C - Metals (ICP) Analyte Result Qualifier RL **MDL** Unit Dil Fac Prepared Analyzed Arsenic 20 U 20 05/22/15 09:35 05/22/15 21:11 ug/L 10 U 10 05/22/15 09:35 05/22/15 21:11 Lead ug/L

General Chemistry Analyte	Result Qu	ualifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	6.8	1.3	mg/L			05/21/15 10:09	5
Nitrate as N	0.050 U	0.050	mg/L			05/20/15 15:04	1
Nitrate Nitrite as N	0.050 U	0.050	mg/L			05/20/15 15:04	1
Nitrite as N	0.081	0.050	mg/L			05/20/15 15:04	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

2

Client Sample ID: PDMW-23R_05192015

Date Collected: 05/19/15 11:05 Date Received: 05/20/15 08:15 Lab Sample ID: 680-112692-5

Matrix: Water

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 21:15	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 21:15	1

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General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.5	0.25	mg/L			05/21/15 09:17	1
Nitrate as N	0.050 U	0.050	mg/L			05/20/15 15:05	1
Nitrate Nitrite as N	0.050 U	0.050	mg/L			05/20/15 15:05	1
Nitrite as N	0.050 U	0.050	mg/L			05/20/15 15:05	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Lab Sample ID: 680-112692-6

Matrix: Water

Client Sample ID: PDMW-50_05192015

Date Collected: 05/19/15 14:38 Date Received: 05/20/15 08:15

General Chemistry Analyte	Result Q	ualifier R	L MDL U	Jnit	D Prepared	Analyzed	Dil Fac
Ammonia	5.9	1.	3 m	ng/L	_	05/21/15 10:19	5
Nitrate as N	0.050 U	0.05	0 m	ng/L		05/20/15 15:06	1
Nitrate Nitrite as N	0.050 U	0.05	0 m	ng/L		05/20/15 15:06	1
Nitrite as N	0.088	0.05	0 m	ng/L		05/20/15 15:06	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Client Sample ID: MW-3R_05192015

Date Collected: 05/19/15 14:50 Date Received: 05/20/15 08:15 Lab Sample ID: 680-112692-7

Matrix: Water

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 21:20	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 21:20	1
Nickel	40	U	40		ug/L		05/22/15 09:35	05/22/15 21:20	1
Zinc	89		20		ug/L		05/22/15 09:35	05/22/15 21:20	1

General Chemistry Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.9	0.25		mg/L			05/21/15 09:17	1
Nitrate as N	0.050 U	0.050		mg/L			05/20/15 15:07	1
Nitrate Nitrite as N	0.055	0.050		mg/L			05/20/15 15:07	1
Nitrite as N	0.078	0.050		mg/L			05/20/15 15:07	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Lab Sample ID: 680-112692-8

Matrix: Water

Client Sample ID: PDMW-53_05192015

Date Collected: 05/19/15 16:08 Date Received: 05/20/15 08:15

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.6		0.25		mg/L			05/21/15 09:17	1
Nitrate as N	0.050	U	0.050		mg/L			05/20/15 15:09	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/15 15:09	1
Nitrite as N	0.089		0.050		mg/L			05/20/15 15:09	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Client Sample ID: PDMW-48_05192015

Lab Sample ID: 680-112692-9

Date Collected: 05/19/15 16:25 Date Received: 05/20/15 08:15

•	Matrix:	Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	8.5		1.3		mg/L		Tropurcu	05/21/15 09:35	5
Nitrate as N	0.050	U	0.050		mg/L			05/20/15 15:10	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/15 15:10	1
Nitrite as N	0.19		0.050		mg/L			05/20/15 15:10	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: MW-2_05192015

TestAmerica Job ID: 680-112692-1

Lab Sample ID: 680-112692-10

Matrix: Water

Date Collected: 05/19/15 17:00 Date Received: 05/20/15 08:15

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 21:25	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 21:25	1

General Chemistry Analyte	Result Qu	ualifier RL	MDL Unit	: D	Prepared	Analyzed	Dil Fac
Ammonia	13	2.5	mg/L			05/21/15 09:35	10
Nitrate as N	0.050 U	0.050	mg/L	_		05/20/15 15:11	1
Nitrate Nitrite as N	0.050 U	0.050	mg/L	_		05/20/15 15:11	1
Nitrite as N	0.17	0.050	mg/L	_		05/20/15 15:11	1

TestAmerica Job ID: 680-112692-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-384313/1-A

Lab Sample ID: LCS 680-384313/2-A

Matrix: Water

Analysis Batch: 384501

Matrix: Water

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 384313

	1410	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 20:20	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 20:20	1
Nickel	40	U	40		ug/L		05/22/15 09:35	05/22/15 20:20	1
Zinc	20	U	20		ug/L		05/22/15 09:35	05/22/15 20:20	1

MD MD

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 384313

Analysis Batch: 384501 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Arsenic 100 96.8 ug/L 97 80 - 120 500 97 Lead 484 ug/L 80 - 120 Nickel 100 100 ug/L 100 80 - 120 Zinc 100 100 ug/L 100 80 - 120

Lab Sample ID: 680-112692-1 MS Client Sample ID: PDMW-13P_05192015 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384501

Prep Batch: 384313 %Rec.

Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Limits Unit %Rec Arsenic 20 Ū 100 97.4 ug/L 97 75 - 125 ug/L Lead 10 U 500 489 96 75 - 125 Nickel 40 U 100 101 ug/L 101 75 - 125 Zinc 20 U 100 105 ug/L 105 75 - 125

Lab Sample ID: 680-112692-1 MSD Client Sample ID: PDMW-13P 05192015

Matrix: Water

Analysis Batch: 384501

Prep Type: Total/NA Prep Batch: 384313

, , , , , , , , , , , , , , , , , , , ,	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	20	U	100	95.5	-	ug/L		96	75 - 125	2	20
Lead	10	U	500	490		ug/L		96	75 - 125	0	20
Nickel	40	U	100	100		ug/L		100	75 - 125	1	20
Zinc	20	U	100	107		ug/L		107	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-384165/34

Matrix: Water

Analysis Batch: 384165

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB **Analyte** Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Ammonia 0.25 U 0.25 05/21/15 09:17 mg/L

TestAmerica Savannah

TestAmerica Job ID: 680-112692-1

Prep Type: Total/NA

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-384165/41 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA**

Analysis Batch: 384165

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 1.00 Ammonia 1.00 mg/L 100 90 - 110

Lab Sample ID: 680-112692-1 DU Client Sample ID: PDMW-13P 05192015

Matrix: Water

Analysis Batch: 384165

Sample Sample DU DU **RPD Result Qualifier** Analyte Result Qualifier **RPD** Limit Unit Ammonia 2.7 2.74 mg/L 0.4

Lab Sample ID: MB 680-384166/20 **Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA**

Analysis Batch: 384166

MB MB

Result Qualifier RL MDL Unit Analyte Prepared Analyzed Dil Fac Ammonia 0.25 U 0.25 mg/L 05/21/15 09:25

Lab Sample ID: LCS 680-384166/41 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384166

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Ammonia 1.00 1.00 100 mg/L 90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-384064/16 **Client Sample ID: Method Blank Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 384064

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			05/20/15 14:53	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/20/15 14:53	1
Nitrite as N	0.050	U	0.050		mg/L			05/20/15 14:53	1

Lab Sample ID: LCS 680-384064/15 **Client Sample ID: Lab Control Sample Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 384064

•	S	pike	LCS	LCS				%Rec.	
Analyte	Ac	dded	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N		.500	0.538		mg/L		108	75 - 125	 -
Nitrate Nitrite as N		1.00	1.04		mg/L		104	90 - 110	
Nitrite as N	C	.500	0.504		ma/L		101	90 - 110	

Lab Sample ID: 680-112692-1 MS Client Sample ID: PDMW-13P_05192015 Prep Type: Total/NA

Matrix: Water

Analysis Ratch: 384064

Alialysis Dalcii. 304004										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.050	U	0.500	0.535		ma/L		107	75 - 125	

TestAmerica Savannah

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QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-112692-1 MS **Matrix: Water**

Analysis Batch: 384064

Client Sample ID: PDMW-13P_05192015

Prep Type: Total/NA

MS MS %Rec. Sample Sample Spike Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits Nitrate Nitrite as N 0.050 U 1.00 1.04 mg/L 104 90 - 110 0.050 U Nitrite as N 0.500 0.503 mg/L 101 90 - 110

Lab Sample ID: 680-112692-1 MSD Client Sample ID: PDMW-13P_05192015 **Matrix: Water**

Prep Type: Total/NA

Analysis Batch: 384064

Sample Sample Spike MSD MSD %Rec. **RPD Analyte** Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Nitrate as N 0.050 U 0.500 0.533 107 75 - 125 0 30 mg/L Nitrate Nitrite as N 0.050 U 1.00 1.03 mg/L 103 90 - 110 0 10 Nitrite as N 0.050 U 0.500 0.502 mg/L 100 90 - 110 10

Lab Sample ID: 680-112692-2 DU Client Sample ID: PDMW-7P_05192015 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 384064

Alialysis Datcil. 304004									
	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Nitrate as N	0.050	U	0.050	U	mg/L		 NC	30	
Nitrate Nitrite as N	0.050	U	0.050	U	mg/L		NC	10	
Nitrite as N	0.11		0.107		mg/L		0.6	10	

TestAmerica Job ID: 680-112692-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Metals

Prep Batch: 384313

Water Water Water	3010A 3010A 3010A	
Water		
	3010A	
Water	3010A	
	Water Water Water	Water 3010A Water 3010A Water 3010A

Analysis Batch: 384501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112692-1	PDMW-13P_05192015	Total/NA	Water	6010C	384313
680-112692-1 MS	PDMW-13P_05192015	Total/NA	Water	6010C	384313
680-112692-1 MSD	PDMW-13P_05192015	Total/NA	Water	6010C	384313
680-112692-2	PDMW-7P_05192015	Total/NA	Water	6010C	384313
680-112692-3	PDMW-32R_05192015	Total/NA	Water	6010C	384313
680-112692-4	TMW-4R_05192015	Total/NA	Water	6010C	384313
680-112692-5	PDMW-23R_05192015	Total/NA	Water	6010C	384313
680-112692-7	MW-3R_05192015	Total/NA	Water	6010C	384313
680-112692-10	MW-2_05192015	Total/NA	Water	6010C	384313
LCS 680-384313/2-A	Lab Control Sample	Total/NA	Water	6010C	384313
MB 680-384313/1-A	Method Blank	Total/NA	Water	6010C	384313

General Chemistry

Analysis Batch: 384064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112692-1	PDMW-13P_05192015	Total/NA	Water	353.2	
680-112692-1 MS	PDMW-13P_05192015	Total/NA	Water	353.2	
680-112692-1 MSD	PDMW-13P_05192015	Total/NA	Water	353.2	
680-112692-2	PDMW-7P_05192015	Total/NA	Water	353.2	
680-112692-2 DU	PDMW-7P_05192015	Total/NA	Water	353.2	
680-112692-3	PDMW-32R_05192015	Total/NA	Water	353.2	
680-112692-4	TMW-4R_05192015	Total/NA	Water	353.2	
680-112692-5	PDMW-23R_05192015	Total/NA	Water	353.2	
680-112692-6	PDMW-50_05192015	Total/NA	Water	353.2	
680-112692-7	MW-3R_05192015	Total/NA	Water	353.2	
680-112692-8	PDMW-53_05192015	Total/NA	Water	353.2	
680-112692-9	PDMW-48_05192015	Total/NA	Water	353.2	
680-112692-10	MW-2_05192015	Total/NA	Water	353.2	
LCS 680-384064/15	Lab Control Sample	Total/NA	Water	353.2	
MB 680-384064/16	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 384165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112692-1	PDMW-13P_05192015	Total/NA	Water	350.1	
680-112692-1 DU	PDMW-13P_05192015	Total/NA	Water	350.1	

TestAmerica Savannah

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

General Chemistry (Continued)

Analysis Batch: 384165 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112692-2	PDMW-7P_05192015	Total/NA	Water	350.1	
680-112692-3	PDMW-32R_05192015	Total/NA	Water	350.1	
680-112692-4	TMW-4R_05192015	Total/NA	Water	350.1	
680-112692-5	PDMW-23R_05192015	Total/NA	Water	350.1	
680-112692-6	PDMW-50_05192015	Total/NA	Water	350.1	
680-112692-7	MW-3R_05192015	Total/NA	Water	350.1	
680-112692-8	PDMW-53_05192015	Total/NA	Water	350.1	
LCS 680-384165/41	Lab Control Sample	Total/NA	Water	350.1	
MB 680-384165/34	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 384166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112692-9	PDMW-48_05192015	Total/NA	Water	350.1	
680-112692-10	MW-2_05192015	Total/NA	Water	350.1	
LCS 680-384166/41	Lab Control Sample	Total/NA	Water	350.1	
MB 680-384166/20	Method Blank	Total/NA	Water	350.1	

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Lab Sample ID: 680-112692-1

Matrix: Water

Client Sample ID: PDMW-13P_05192015 Date Collected: 05/19/15 09:43

Date Received: 05/20/15 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 20:30	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	384165	05/21/15 09:08	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 14:54	GRX	TAL SAV

Lab Sample ID: 680-112692-2 Client Sample ID: PDMW-7P_05192015

Date Collected: 05/19/15 09:00 Date Received: 05/20/15 08:15

Matrix: Water

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrumer	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 21:02	BCB	TAL SAV
Total/NA	Analysis Instrumer	350.1 nt ID: KONELAB1		10	2 mL	2 mL	384165	05/21/15 09:08	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 14:58	GRX	TAL SAV

Client Sample ID: PDMW-32R 05192015 Lab Sample ID: 680-112692-3

Date Collected: 05/19/15 10:56 Date Received: 05/20/15 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 21:06	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384165	05/21/15 08:51	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 15:03	GRX	TAL SAV

Lab Sample ID: 680-112692-4 Client Sample ID: TMW-4R 05192015

Date Collected: 05/19/15 10:05 Date Received: 05/20/15 08:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	384501	05/22/15 21:11	BCB	TAL SAV
	Instrume	nt ID: ICPE								

TestAmerica Savannah

Matrix: Water

Matrix: Water

TestAmerica Job ID: 680-112692-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: TMW-4R_05192015

Date Collected: 05/19/15 10:05 Date Received: 05/20/15 08:15

Lab Sample ID: 680-112692-4

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	384165	05/21/15 10:09	JME	TAL SAV
	Instrume	nt ID: KONELAB1	l 							
Total/NA	Analysis	353.2		1	2 mL	2 mL	384064	05/20/15 15:04	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: PDMW-23R_05192015 Lab Sample ID: 680-112692-5

Date Collected: 05/19/15 11:05 Date Received: 05/20/15 08:15

Matrix: Water

Prep Type Total/NA Total/NA	Prep Analysis	Method 3010A 6010C t ID: ICPE	Run	Dil Factor	Initial Amount 50 mL 50 mL	Final Amount 50 mL 50 mL	Batch Number 384313 384501	Prepared or Analyzed 05/22/15 09:35 05/22/15 21:15		Lab TAL SAV TAL SAV
Total/NA	- ,	350.1 t ID: KONELAB1		1	2 mL	2 mL	384165	05/21/15 09:17	JME	TAL SAV
Total/NA	- ,	353.2 t ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 15:05	GRX	TAL SAV

Client Sample ID: PDMW-50_05192015 Lab Sample ID: 680-112692-6

Date Collected: 05/19/15 14:38 Date Received: 05/20/15 08:15 **Matrix: Water**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB ²	 1	5	2 mL	2 mL	384165	05/21/15 10:19	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 15:06	GRX	TAL SAV

Client Sample ID: MW-3R_05192015 Lab Sample ID: 680-112692-7

Date Collected: 05/19/15 14:50 Date Received: 05/20/15 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 21:20	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384165	05/21/15 09:17	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 15:07	GRX	TAL SAV

TestAmerica Savannah

Matrix: Water

TestAmerica Job ID: 680-112692-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-53_05192015

Date Collected: 05/19/15 16:08 Date Received: 05/20/15 08:15

Lab Sample ID: 680-112692-8

Matrix: Water

Matrix: Water

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	2 mL	2 mL	384165	05/21/15 09:17	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	384064	05/20/15 15:09	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: PDMW-48_05192015 Lab Sample ID: 680-112692-9

Date Collected: 05/19/15 16:25

Date Received: 05/20/15 08:15

Dran Time	Batch	Batch Method	Dum	Dil	Initial	Final	Batch Number	Prepared	Amalust	l ab
Prep Type	Type	wethod	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		5	2 mL	2 mL	384166	05/21/15 09:35	JME	TAL SAV
	Instrume	nt ID: KONELAE	31							
Total/NA	Analysis	353.2		1	2 mL	2 mL	384064	05/20/15 15:10	GRX	TAL SAV
	Instrume	nt ID: LACHAT2	!							

Client Sample ID: MW-2_05192015 Lab Sample ID: 680-112692-10

Date Collected: 05/19/15 17:00

Date Received: 05/20/15 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	=		50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 21:25	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		10	2 mL	2 mL	384166	05/21/15 09:35	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384064	05/20/15 15:11	GRX	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL-6006 (0509) aaron.getchell@cmecfus,com LAB USE Comments & Special Analytical Requirements: Cowier 3.0(F)84° 112692 Chain of Custody Project #: 6-4300-5245 LAB Log Number betchel COMMENTS Photograp (256-1541) Fax **1**87 NVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC SHIPMENT INFORMATION Shipment Tracking No. Shipment Method: PME ARKON K ついて X # 000 Custody Seal # これにて て て METHODS FOR ANALYSIS X Chromium N TestAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P. 912-354-7858 F- 912-352-0165 Company. Amee Foster Wheeler Custody Intact ಌ 3 3/63/0 37211 LAB USE: \[\begin{align*}
\text{Yes}
\end{align*} Date/Time: CONSULTANT INFORMATION Note 📭 🕉 Agen Eall Rd いる。場合の大 30 Code 3 3 39 3 Pres. Code Type Matrib LIQ = Liquid Comp or Grab Z ૭ ৩ V ৩ 4 = Sodium Thiosulfate 5 = Sodium Hydroxide SOL = Other Solid Filtered YorN 3 = Sulfuric Acid Z Z Z Z Z Z Z Z Z Z MGLab Remaiks: 80 J SL = Sludge SO = Soil 6 = Other Sampler 0=0 5/19/15/1780 JJ 5/19/15/1005/96 5 1915 1438 20 5/19/15 Ogo PG 5/19/15/1056/27 5/19/15/1105 PG 5/19/15/1450 PG 5/19/15 1608 33 5/19/15 1625 PC 5/19/15 0943 33 Proj. State (State of Origin) 6.A T-10210009011 Received By: Proj City: Sayannah Received By: Received By Sample Collection Time Preservative Codes: 0 = No Preservatives 1 = Hydrochloric Acid SW = Surface Water WW = Waste Water GW = GroundwaterMatrix Codes: 2 = Nrtric Acid 03.10 Date SENSON S Containers Number & CSXT Project Name: Hutchinson Island EDD Required, Format: ole Time; Date/Time: 3 J # ナ J ろり Standard 6-13 Days Т CUSTODY CHAIN OF Standard 14 Days OPICEMAL - RETURN TO LABORATORY WITH SAMPLES Specify # Days PDMW-7P_05192015 Other Deliv: PDMW-32R-05192015 PDMW-23R_05192015 PDMW-13P_05192015 TMW-4R-05192015 MW-38-05192015 PDMW-48-05 192015 PMW-50_05192015 PDMW-53_05192015 105192015 CSXT Project Number: 9415575 Other Ross **CSXT PROJECT INFORMATION** CSXT Standard (Level II) Sample Identification Sam SAMPLE INFORMATION Received By Laboratory. **Turnaround Time:** 1 Day Rush 2 Day Rush 3 Day Rush Deliverables: CSXT Contact: Level IV

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc Job Number: 680-112692-1

Login Number: 112692 List Source: TestAmerica Savannah

List Number: 1

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112692-1

Laboratory: TestAmerica Savannah The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-112765-1

Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

Sida Horey

Authorized for release by: 5/28/2015 4:46:36 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

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Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Job ID: 680-112765-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: AMEC Foster Wheeler E & I, Inc Project: CSX GA, Hutchinson Island, VRP Report Number: 680-112765-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 05/21/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.8 C.

METALS (ICP)

Samples PDMW-10R 05202015 (680-112765-1), PDMW-45R 05202015 (680-112765-2), MW-201 05202015 (680-112765-3), DUP-03 05202015 (680-112765-4), EW-01 05202015 (680-112765-5), DUP-02 05202015 (680-112765-6), MW-1 05202015 (680-112765-7), PDMW-8R 05202015 (680-112765-8), PDMW-19P 05202015 (680-112765-9), PDMW-47 05202015 (680-112765-10), PDMW-46 05202015 (680-112765-11), PDMW-33R2 05202015 (680-112765-12) and PDMW-30P 05202015 (680-112765-13) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 05/22/2015 and 05/26/2015 and analyzed on 05/22/2015 and 05/27/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples PDMW-10R 05202015 (680-112765-1), PDMW-45R 05202015 (680-112765-2), MW-201 05202015 (680-112765-3), DUP-03 05202015 (680-112765-4), EW-01 05202015 (680-112765-5), DUP-02 05202015 (680-112765-6), MW-1 05202015 (680-112765-7), PDMW-8R_05202015 (680-112765-8), PDMW-19P_05202015 (680-112765-9), PDMW-47_05202015 (680-112765-10), PDMW-46 05202015 (680-112765-11), PDMW-33R2 05202015 (680-112765-12) and PDMW-30P 05202015 (680-112765-13) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/26/2015 and 05/27/2015.

Ammonia recovery is outside criteria high for the MS of sample EW-01 05202015MS (680-112765-5) in batch 680-384906. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Refer to the QC report for details.

Samples PDMW-10R 05202015 (680-112765-1)[5X], PDMW-45R 05202015 (680-112765-2)[2X], EW-01 05202015 (680-112765-5) [400X], DUP-02 05202015 (680-112765-6)[200X], MW-1 05202015 (680-112765-7)[20X], PDMW-8R 05202015 (680-112765-8)[50X], PDMW-19P_05202015 (680-112765-9)[5X], PDMW-47_05202015 (680-112765-10)[20X], PDMW-33R2_05202015 (680-112765-12)[10X] and PDMW-30P_05202015 (680-112765-13)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-10R_05202015 (680-112765-1), PDMW-45R_05202015 (680-112765-2), MW-201_05202015 (680-112765-3), DUP-03 05202015 (680-112765-4), EW-01 05202015 (680-112765-5), DUP-02 05202015 (680-112765-6), MW-1 05202015 (680-112765-7), PDMW-8R 05202015 (680-112765-8), PDMW-19P 05202015 (680-112765-9), PDMW-47 05202015 (680-112765-10), PDMW-46 05202015 (680-112765-11), PDMW-33R2 05202015 (680-112765-12) and PDMW-30P 05202015 (680-112765-13) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 05/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Qualifiers

Metals

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier	Description

Ū Indicates the analyte was analyzed for but not detected. F1 MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report
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¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity **EDL Estimated Detection Limit** MDC

Minimum detectable concentration

Method Detection Limit MDL ML Minimum Level (Dioxin) NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC **Quality Control RER** Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-112765-1	PDMW-10R_05202015	Water	05/20/15 11:05	05/21/15 08:20
680-112765-2	PDMW-45R_05202015	Water	05/20/15 09:25	05/21/15 08:20
680-112765-3	MW-201_05202015	Water	05/20/15 08:55	05/21/15 08:20
680-112765-4	DUP-03_05202015	Water	05/20/15 00:00	05/21/15 08:20
680-112765-5	EW-01_05202015	Water	05/20/15 10:10	05/21/15 08:20
680-112765-6	DUP-02_05202015	Water	05/20/15 00:00	05/21/15 08:20
680-112765-7	MW-1_05202015	Water	05/20/15 10:47	05/21/15 08:20
680-112765-8	PDMW-8R_05202015	Water	05/20/15 13:15	05/21/15 08:20
680-112765-9	PDMW-19P_05202015	Water	05/20/15 13:25	05/21/15 08:20
680-112765-10	PDMW-47_05202015	Water	05/20/15 14:36	05/21/15 08:20
680-112765-11	PDMW-46_05202015	Water	05/20/15 14:50	05/21/15 08:20
680-112765-12	PDMW-33R2_05202015	Water	05/20/15 15:42	05/21/15 08:20
680-112765-13	PDMW-30P_05202015	Water	05/20/15 16:00	05/21/15 08:20

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Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client: AMEC Foster Wheeler E & I, Inc

Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-10R_05202015 Lab Sample ID: 680-112765-1

Date Collected: 05/20/15 11:05 **Matrix: Water**

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 22:20	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 22:20	1
Nickel	40	U	40		ug/L		05/22/15 09:35	05/22/15 22:20	1

General Chemistry Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.3		1.3		mg/L			05/26/15 16:50	5
Nitrate as N	0.050 l	U	0.050		mg/L			05/21/15 18:14	1
Nitrate Nitrite as N	0.050 l	U	0.050		mg/L			05/21/15 18:14	1
Nitrite as N	0.050 l	U	0.050		mg/L			05/21/15 18:14	1

TestAmerica Job ID: 680-112765-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: PDMW-45R 05202015

Date Collected: 05/20/15 09:25 Date Received: 05/21/15 08:20

Lab Sample ID: 680-112765-2 **Matrix: Water**

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/22/15 09:35	05/22/15 22:24	1
Lead	10	U	10		ug/L		05/22/15 09:35	05/22/15 22:24	1
Nickel	40	U	40		ug/L		05/22/15 09:35	05/22/15 22:24	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3.6	-	0.50		mg/L			05/26/15 17:19	2
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 18:15	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:15	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:15	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-3

Matrix: Water

Client Sample ID: MW-201_05202015 Date Collected: 05/20/15 08:55

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL Un	it D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/	L _	05/22/15 09:35	05/22/15 22:38	1
Lead	10	U	10	ug/	L	05/22/15 09:35	05/22/15 22:38	1
Nickel	40	U	40	ug/	L	05/22/15 09:35	05/22/15 22:38	1
Zinc	20	U	20	ug/	L	05/22/15 09:35	05/22/15 22:38	1

_									
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.1		0.25		mg/L			05/26/15 16:15	1
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 18:16	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:16	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:16	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: DUP-03_05202015

TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-4

Matrix: Water

Date Collected: 05/20/15 00:00

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP)							
Analyte	Result	Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/L	05/22/15 09:35	05/22/15 22:43	1
Lead	10	U	10	ug/L	05/22/15 09:35	05/22/15 22:43	1
Nickel	40	U	40	ug/L	05/22/15 09:35	05/22/15 22:43	1
Zinc	20	U	20	ug/L	05/22/15 09:35	05/22/15 22:43	1

2110	20	· ·	20		ug/L		00/22/10 00:00	00/22/10 22.40	
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.1		0.25		mg/L			05/26/15 16:20	1
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 18:17	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:17	1
Nitrite as N	0.050	Ü	0.050		mg/L			05/21/15 18:17	1
	General Chemistry Analyte Ammonia Nitrate as N Nitrate Nitrite as N	General Chemistry Analyte Result Ammonia 1.1 Nitrate as N 0.050 Nitrate Nitrite as N 0.050	General Chemistry Analyte Result Qualifier Ammonia 1.1 Nitrate as N 0.050 U Nitrate Nitrite as N 0.050 U	General Chemistry Analyte Result Qualifier RL Ammonia 1.1 0.25 Nitrate as N 0.050 U 0.050 Nitrate Nitrite as N 0.050 U 0.050	General Chemistry Analyte Result Qualifier RL MDL Ammonia 1.1 0.25 Nitrate as N 0.050 U 0.050 Nitrate Nitrite as N 0.050 U 0.050	General Chemistry Analyte Result Qualifier RL MDL Unit Ammonia 1.1 0.25 mg/L Nitrate as N 0.050 U 0.050 mg/L Nitrate Nitrite as N 0.050 U 0.050 mg/L	General Chemistry Analyte Result Qualifier RL MDL Unit D Ammonia 1.1 0.25 mg/L Nitrate as N 0.050 U 0.050 mg/L Nitrate Nitrite as N 0.050 U 0.050 mg/L	General Chemistry Analyte Result Ammonia Qualifier RL D.25 MDL Unit mg/L D Prepared Nitrate as N 0.050 U 0.050 mg/L mg/L Nitrate Nitrite as N 0.050 U 0.050 mg/L	General Chemistry Analyte Result Qualifier RL 0.25 MDL mg/L D prepared 0.05/26/15 16:20 Ammonia 1.1 0.25 mg/L 05/26/15 16:20 Nitrate as N 0.050 U 0.050 mg/L 05/21/15 18:17 Nitrate Nitrite as N 0.050 U 0.050 mg/L 05/21/15 18:17

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: EW-01_05202015

Lab Sample ID: 680-112765-5 Date Collected: 05/20/15 10:10 **Matrix: Water**

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U -	20		ug/L		05/26/15 10:40	05/27/15 13:36	1
Chromium	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:36	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:36	1
Nickel	44		40		ug/L		05/26/15 10:40	05/27/15 13:36	1
Zinc	190		20		ug/L		05/26/15 10:40	05/27/15 13:36	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	320	F1	100		mg/L			05/27/15 10:29	400
Nitrate as N	0.063		0.050		mg/L			05/21/15 18:18	1
Nitrate Nitrite as N	0.065		0.050		mg/L			05/21/15 18:18	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:18	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: DUP-02_05202015

Date Collected: 05/20/15 00:00 Date Received: 05/21/15 08:20 Lab Sample ID: 680-112765-6

. Matrix: Water

Method: 6010C - Metals (ICP)						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 13:59	1
Chromium	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:59	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:59	1
Nickel	44		40		ug/L		05/26/15 10:40	05/27/15 13:59	1
Zinc	190		20		ug/L		05/26/15 10:40	05/27/15 13:59	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	260		50		mg/L			05/26/15 18:48	200
Nitrate as N	0.097		0.050		mg/L			05/21/15 18:19	1
Nitrate Nitrite as N	0.10		0.050		mg/L			05/21/15 18:19	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:19	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: MW-1_05202015

Lab Sample ID: 680-112765-7 Date Collected: 05/20/15 10:47 **Matrix: Water**

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:03	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:03	1

General Chemistry Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	21		5.0		mg/L			05/26/15 16:50	20
Nitrate as N	0.050 L	J	0.050		mg/L			05/21/15 18:21	1
Nitrate Nitrite as N	0.050 L	J	0.050		mg/L			05/21/15 18:21	1
Nitrite as N	0.050 L	j	0.050		mg/L			05/21/15 18:21	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-8R_05202015

TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-8

Matrix: Water

Date Collected: 05/20/15 13:15
Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:08	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:08	1
Nickel	40	U	40		ug/L		05/26/15 10:40	05/27/15 14:08	1

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	64	13	mg/L			05/26/15 17:23	50
Nitrate as N	0.050 U	0.050	mg/L			05/21/15 18:22	1
Nitrate Nitrite as N	0.098	0.050	mg/L			05/21/15 18:22	1
Nitrite as N	0.050	0.050	mg/L			05/21/15 18:22	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: PDMW-19P 05202015

Date Collected: 05/20/15 13:25 Date Received: 05/21/15 08:20

Lab Sample ID: 680-112765-9

Matrix: Water

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:21	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:21	1
Nickel	40	U	40		ug/L		05/26/15 10:40	05/27/15 14:21	1
<u> </u>									

General Chemistry Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	4.7		1.3		mg/L			05/26/15 17:00	5
Nitrate as N	0.050 U		0.050		mg/L			05/21/15 18:25	1
Nitrate Nitrite as N	0.050 U		0.050		mg/L			05/21/15 18:25	1
Nitrite as N	0.050 U		0.050		mg/L			05/21/15 18:25	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Client Sample ID: PDMW-47_05202015

Lab Sample ID: 680-112765-10 Date Collected: 05/20/15 14:36

Matrix: Water

Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:26	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:26	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	39		5.0		mg/L			05/26/15 17:00	20
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 18:27	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:27	1
Nitrite as N	0.052		0.050		mg/L			05/21/15 18:27	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-46_05202015

TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-11

Matrix: Water

Date Collected: 05/20/15 14:50 Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:31	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:31	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.60		0.25	-	mg/L			05/26/15 16:20	1
Nitrate as N	0.050	U	0.050	1	mg/L			05/21/15 18:28	1
Nitrate Nitrite as N	0.050	U	0.050	1	mg/L			05/21/15 18:28	1
Nitrite as N	0.050	U	0.050	i	mg/L			05/21/15 18:28	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-33R2_05202015

TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-12

Matrix: Water

Date Collected: 05/20/15 15:42 Date Received: 05/21/15 08:20

: 6010C - Metals (ICP)								
Resu	ılt Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	20 U	20		ug/L		05/26/15 10:40	05/27/15 14:35	1
	0 U	10		ug/L		05/26/15 10:40	05/27/15 14:35	1
	Resu	Result Qualifier 20 U 10 U	Result Qualifier RL 20 U 20	Result 20 Qualifier U RL 20 MDL 20	Result Qualifier RL MDL Unit 20 U 20 0 ug/L		Result Qualifier RL MDL Unit D Prepared 20 20 ug/L 05/26/15 10:40	Result Qualifier RL MDL ug/L Unit ug/L D 05/26/15 10:40 Analyzed 05/27/15 14:35

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	14		2.5		mg/L			05/26/15 17:00	10
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 18:29	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:29	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:29	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Lab Sample ID: 680-112765-13

Matrix: Water

Client Sample ID: PDMW-30P_05202015 Date Collected: 05/20/15 16:00 Date Received: 05/21/15 08:20

Method: 6010C - Metals (ICP)						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared
Arsenic	20	U	20	ug/L		05/26/15 10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:40	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:40	1

	Seneral Chemistry nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
A	mmonia	2.0		0.50		mg/L			05/26/15 17:00	2
N	itrate as N	0.050	U	0.050		mg/L			05/21/15 18:30	1
N	itrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 18:30	1
N	itrite as N	0.050	U	0.050		mg/L			05/21/15 18:30	1

TestAmerica Job ID: 680-112765-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-384313/1-A

Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA Analysis Batch: 384501 **Prep Batch: 384313**

Analyzed	Dil Fac
5 05/22/15 20:20	1
5 05/22/15 20:20	1
5 05/22/15 20:20	1
5 05/22/15 20:20	1
3	Analyzed 35 05/22/15 20:20 35 05/22/15 20:20 35 05/22/15 20:20 35 05/22/15 20:20

Lab Sample ID: LCS 680-384313/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 384501 **Prep Batch: 384313** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 100 96.8 97 80 - 120 Arsenic ug/L Lead 500 484 97 ug/L 80 - 120 100 100 Nickel ug/L 100 80 - 120 Zinc 100 100 100 80 - 120 ug/L

Lab Sample ID: MB 680-384639/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384988

MR MR

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 13:27	1
Chromium	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:27	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 13:27	1
Nickel	40	U	40		ug/L		05/26/15 10:40	05/27/15 13:27	1
Zinc	20	U	20		ug/L		05/26/15 10:40	05/27/15 13:27	1
<u></u>									

Lab Sample ID: LCS 680-384639/2-A Matrix: Water Analysis Batch: 384988	Spiles	1.00	LCS	Clie	ent Sai	mple ID	Prep Type: Total/N Prep Batch: 3846	IA
	Spike	LUS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	99.6		ug/L		100	80 - 120	_
Chromium	100	105		ug/L		105	80 - 120	
Lead	500	509		ug/L		102	80 - 120	
Nickel	100	103		ug/L		103	80 - 120	
Zinc.	100	104		ua/l		104	80 - 120	

ZIIIC	100	104	ug/L	104 80 - 120	
Г					
Lab Sample ID: 680-112765-5 MS			Clie	nt Sample ID: EW-0	1_05202015
Matrix: Water				Prep Tyr	oe: Total/NA
Analysis Ratch: 384088				Pron Re	tch: 384630

Analysis Balcii. 304300	Sample	Sample	Spike	MS	MS				%Rec.	304039
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	20	U	100	106		ug/L		98	75 - 125	
Chromium	10	U	100	109		ug/L		102	75 - 125	
Lead	10	U	500	494		ug/L		99	75 - 125	
Nickel	44		100	144		ug/L		99	75 - 125	
Zinc	190		100	292		ug/L		98	75 - 125	

TestAmerica Savannah

Prep Batch: 384639

TestAmerica Job ID: 680-112765-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-112765-5 MSD Matrix: Water								Sample	D: EW-0 Prep Tyl	_	
Analysis Batch: 384988	Sample	Sample	Spike	MSD	MSD				Prep Ba %Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	20	U	100	107		ug/L		99	75 - 125	1	20
Chromium	10	U	100	107		ug/L		100	75 - 125	2	20
Lead	10	U	500	485		ug/L		97	75 - 125	2	20
Nickel	44		100	142		ug/L		98	75 - 125	1	20
Zinc	190		100	284		ug/L		90	75 - 125	3	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-384905			Client Sample ID: Method E							
Matrix: Water								Prep Type: To	tal/NA	
Analysis Batch: 384905										
•	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Ammonia	0.25	U	0.25		mg/L			05/26/15 16:15	1	

Lab Sample ID: LCS 680-384905/30 Matrix: Water Analysis Batch: 384905				Clie	nt Sai	mple ID	: Lab Control S Prep Type: To	
Analysis Daten. 304303	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	 1.00	1.00		mg/L		100	90 - 110	

7 tilliona	1.00	1.00	mg/L	100 00-110
Lab Sample ID: MB 680-384906/47				Client Sample ID: Method Blank
Matrix: Water				Pren Type: Total/NA

Analysis Batch: 384906

	IAID	IAID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U	0.25		mg/L			05/27/15 10:19	1

Lab Sample ID: LCS 680-384906/29 Matrix: Water				Clie	nt Sar	nple ID	: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 384906	Spike	LCS	LCS				%Rec.
	Opine	LOO	LUU				/orceo.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ammonia	1 00	1 00		ma/l		100	90 - 110

Lab Sample ID: LCSD 680-384906/21	Client Sample ID: Lab Control Sample Dup
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 384906

	Spike	e LCSD	LCSD				%Rec.		RPD
Analyte	Added	l Result	Qualifier	Unit I	D	%Rec	Limits	RPD	Limit
Ammonia	1.00	1.00		mg/L		100	90 - 110	0	30

Lab Sample ID: 680-112769 Matrix: Water Analysis Batch: 384906	5-5 MS						Client	Sample	e ID: EW-01_05202015 Prep Type: Total/NA
7 maryolo Batom 004000	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ammonia	320	F1	200	547	F1	mg/L		113	90 - 110

TestAmerica Savannah

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QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 680-112765-5 MSD

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 384906

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Ammonia	320	F1	200	538		mg/L		108	90 - 110	2	30	

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-384265/13

Client Sample ID: Method Blank
Matrix: Water

Prep Type: Total/NA

Analysis Batch: 384265

MB MB MDL Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 mg/L 05/21/15 17:28 Nitrate Nitrite as N 0.050 U 0.050 mg/L 05/21/15 17:28 1 Nitrite as N 0.050 U 0.050 mg/L 05/21/15 17:28

Lab Sample ID: LCS 680-384265/16

Matrix: Water

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analysis Batch: 384265

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	0.500	0.561		mg/L		112	75 - 125	 -
Nitrate Nitrite as N	1.00	1.06		mg/L		106	90 - 110	
Nitrite as N	0.500	0.502		ma/L		100	90 - 110	

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Metals

Prep Batch: 384313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-1	PDMW-10R_05202015	Total/NA	Water	3010A	
680-112765-2	PDMW-45R_05202015	Total/NA	Water	3010A	
680-112765-3	MW-201_05202015	Total/NA	Water	3010A	
680-112765-4	DUP-03_05202015	Total/NA	Water	3010A	
LCS 680-384313/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-384313/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 384501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-1	PDMW-10R_05202015	Total/NA	Water	6010C	384313
680-112765-2	PDMW-45R_05202015	Total/NA	Water	6010C	384313
680-112765-3	MW-201_05202015	Total/NA	Water	6010C	384313
680-112765-4	DUP-03_05202015	Total/NA	Water	6010C	384313
LCS 680-384313/2-A	Lab Control Sample	Total/NA	Water	6010C	384313
MB 680-384313/1-A	Method Blank	Total/NA	Water	6010C	384313

Prep Batch: 384639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-5	EW-01_05202015	Total/NA	Water	3010A	_
680-112765-5 MS	EW-01_05202015	Total/NA	Water	3010A	
680-112765-5 MSD	EW-01_05202015	Total/NA	Water	3010A	
680-112765-6	DUP-02_05202015	Total/NA	Water	3010A	
680-112765-7	MW-1_05202015	Total/NA	Water	3010A	
680-112765-8	PDMW-8R_05202015	Total/NA	Water	3010A	
680-112765-9	PDMW-19P_05202015	Total/NA	Water	3010A	
680-112765-10	PDMW-47_05202015	Total/NA	Water	3010A	
680-112765-11	PDMW-46_05202015	Total/NA	Water	3010A	
680-112765-12	PDMW-33R2_05202015	Total/NA	Water	3010A	
680-112765-13	PDMW-30P_05202015	Total/NA	Water	3010A	
LCS 680-384639/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-384639/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 384988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-5	EW-01_05202015	Total/NA	Water	6010C	384639
680-112765-5 MS	EW-01_05202015	Total/NA	Water	6010C	384639
680-112765-5 MSD	EW-01_05202015	Total/NA	Water	6010C	384639
680-112765-6	DUP-02_05202015	Total/NA	Water	6010C	384639
680-112765-7	MW-1_05202015	Total/NA	Water	6010C	384639
680-112765-8	PDMW-8R_05202015	Total/NA	Water	6010C	384639
680-112765-9	PDMW-19P_05202015	Total/NA	Water	6010C	384639
680-112765-10	PDMW-47_05202015	Total/NA	Water	6010C	384639
680-112765-11	PDMW-46_05202015	Total/NA	Water	6010C	384639
680-112765-12	PDMW-33R2_05202015	Total/NA	Water	6010C	384639
680-112765-13	PDMW-30P_05202015	Total/NA	Water	6010C	384639
LCS 680-384639/2-A	Lab Control Sample	Total/NA	Water	6010C	384639
MB 680-384639/1-A	Method Blank	Total/NA	Water	6010C	384639

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

3

General Chemistry

Analysis Batch: 384265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-1	PDMW-10R_05202015	Total/NA	Water	353.2	
680-112765-2	PDMW-45R_05202015	Total/NA	Water	353.2	
680-112765-3	MW-201_05202015	Total/NA	Water	353.2	
680-112765-4	DUP-03_05202015	Total/NA	Water	353.2	
680-112765-5	EW-01_05202015	Total/NA	Water	353.2	
680-112765-6	DUP-02_05202015	Total/NA	Water	353.2	
680-112765-7	MW-1_05202015	Total/NA	Water	353.2	
680-112765-8	PDMW-8R_05202015	Total/NA	Water	353.2	
680-112765-9	PDMW-19P_05202015	Total/NA	Water	353.2	
680-112765-10	PDMW-47_05202015	Total/NA	Water	353.2	
680-112765-11	PDMW-46_05202015	Total/NA	Water	353.2	
680-112765-12	PDMW-33R2_05202015	Total/NA	Water	353.2	
680-112765-13	PDMW-30P_05202015	Total/NA	Water	353.2	
LCS 680-384265/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-384265/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 384905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-1	PDMW-10R_05202015	Total/NA	Water	350.1	
680-112765-2	PDMW-45R_05202015	Total/NA	Water	350.1	
LCS 680-384905/30	Lab Control Sample	Total/NA	Water	350.1	
MB 680-384905/23	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 384906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112765-3	MW-201_05202015	Total/NA	Water	350.1	
680-112765-4	DUP-03_05202015	Total/NA	Water	350.1	
680-112765-5	EW-01_05202015	Total/NA	Water	350.1	
680-112765-5 MS	EW-01_05202015	Total/NA	Water	350.1	
680-112765-5 MSD	EW-01_05202015	Total/NA	Water	350.1	
680-112765-6	DUP-02_05202015	Total/NA	Water	350.1	
680-112765-7	MW-1_05202015	Total/NA	Water	350.1	
680-112765-8	PDMW-8R_05202015	Total/NA	Water	350.1	
680-112765-9	PDMW-19P_05202015	Total/NA	Water	350.1	
680-112765-10	PDMW-47_05202015	Total/NA	Water	350.1	
680-112765-11	PDMW-46_05202015	Total/NA	Water	350.1	
680-112765-12	PDMW-33R2_05202015	Total/NA	Water	350.1	
680-112765-13	PDMW-30P_05202015	Total/NA	Water	350.1	
LCS 680-384906/29	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-384906/21	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-384906/47	Method Blank	Total/NA	Water	350.1	

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-10R 05202015

Lab Sample ID: 680-112765-1

Date Collected: 05/20/15 11:05

Matrix: Water

Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 22:20	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		5	2 mL	2 mL	384905	05/26/15 16:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:14	GRX	TAL SAV

Lab Sample ID: 680-112765-2 Client Sample ID: PDMW-45R_05202015

Date Collected: 05/20/15 09:25

Matrix: Water

Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384501	05/22/15 22:24	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	384905	05/26/15 17:19	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:15	GRX	TAL SAV

Client Sample ID: MW-201 05202015 Lab Sample ID: 680-112765-3

Date Collected: 05/20/15 08:55 Date Received: 05/21/15 08:20

Matrix: Water

Prep Type Total/NA Total/NA	Batch Type Method Prep 3010A Analysis 6010C	Run	Factor 1	Initial Amount 50 mL 50 mL	Final Amount 50 mL 50 mL	Batch Number 384313 384501	Prepared or Analyzed 05/22/15 09:35 05/22/15 22:38		Lab TAL SAV TAL SAV
Total/NA	Instrument ID: ICPE Analysis 350.1 Instrument ID: KONEL	AB1	1	2 mL	2 mL	384906	05/26/15 16:15	JME	TAL SAV
Total/NA	Analysis 353.2 Instrument ID: LACHA	T2	1	2 mL	2 mL	384265	05/21/15 18:16	GRX	TAL SAV

Lab Sample ID: 680-112765-4 Client Sample ID: DUP-03_05202015

Date Collected: 05/20/15 00:00 **Matrix: Water**

Date Received: 05/21/15 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384313	05/22/15 09:35	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	384501	05/22/15 22:43	BCB	TAL SAV
	Instrume	nt ID: ICPE								

TestAmerica Job ID: 680-112765-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: DUP-03_05202015

Date Collected: 05/20/15 00:00 Date Received: 05/21/15 08:20

Lab Sample ID: 680-112765-4

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	2 mL	2 mL	384906	05/26/15 16:20	JME	TAL SAV
	Instrume	nt ID: KONELAB	1							
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:17	GRX	TAL SAV

Lab Sample ID: 680-112765-5 Client Sample ID: EW-01_05202015

Date Collected: 05/20/15 10:10 **Matrix: Water** Date Received: 05/21/15 08:20

Prep Type Total/NA Total/NA	Batch Type Prep Analysis Instrumer	Method 3010A 6010C at ID: ICPE	Run	Dil Factor	Initial Amount 50 mL 50 mL	Final Amount 50 mL 50 mL	Batch Number 384639 384988	Prepared or Analyzed 05/26/15 10:40 05/27/15 13:36		Lab TAL SAV TAL SAV
Total/NA	Analysis Instrumer	350.1 at ID: KONELAB1		400	2 mL	2 mL	384906	05/27/15 10:29	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 at ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:18	GRX	TAL SAV

Client Sample ID: DUP-02_05202015 Lab Sample ID: 680-112765-6

Date Collected: 05/20/15 00:00 Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 13:59	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		200	2 mL	2 mL	384906	05/26/15 18:48	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:19	GRX	TAL SAV

Lab Sample ID: 680-112765-7 **Client Sample ID: MW-1_05202015**

Date Collected: 05/20/15 10:47 Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	=		50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:03	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		20	2 mL	2 mL	384906	05/26/15 16:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:21	GRX	TAL SAV

TestAmerica Savannah

Page 25 of 31

Matrix: Water

Matrix: Water

5/28/2015

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Lab Sample ID: 680-112765-8

Client Sample ID: PDMW-8R_05202015 Date Collected: 05/20/15 13:15 **Matrix: Water** Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:08	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		50	2 mL	2 mL	384906	05/26/15 17:23	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:22	GRX	TAL SAV

Client Sample ID: PDMW-19P 05202015 Lab Sample ID: 680-112765-9

Date Collected: 05/20/15 13:25 **Matrix: Water** Date Received: 05/21/15 08:20

Dil Initial Batch **Batch** Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Lab Total/NA 3010A 50 mL 384639 05/26/15 10:40 CRW TAL SAV Prep 50 mL Total/NA Analysis 6010C 50 mL 384988 05/27/15 14:21 BCB TAL SAV 1 50 mL Instrument ID: ICPE Total/NA Analysis 350.1 5 2 mL 2 mL 384906 05/26/15 17:00 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 384265 05/21/15 18:25 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: PDMW-47 05202015 Lab Sample ID: 680-112765-10

Date Collected: 05/20/15 14:36 **Matrix: Water** Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:26	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		20	2 mL	2 mL	384906	05/26/15 17:00	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:27	GRX	TAL SAV

Client Sample ID: PDMW-46_05202015 Lab Sample ID: 680-112765-11

Date Collected: 05/20/15 14:50 **Matrix: Water** Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	384988	05/27/15 14:31	BCB	TAL SAV
	Instrume	nt ID: ICPE								

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-46_05202015

Lab Sample ID: 680-112765-11

Date Collected: 05/20/15 14:50 Date Received: 05/21/15 08:20

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384906	05/26/15 16:20	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:28	GRX	TAL SAV

Lab Sample ID: 680-112765-12

Client Sample ID: PDMW-33R2_05202015 Date Collected: 05/20/15 15:42 **Matrix: Water**

Date Received: 05/21/15 08:20

Prep Type Total/NA Total/NA	Batch Type Prep Analysis Instrumer	Method 3010A 6010C nt ID: ICPE	Run	Dil Factor	Initial Amount 50 mL 50 mL	Final Amount 50 mL	Batch Number 384639 384988	Prepared or Analyzed 05/26/15 10:40 05/27/15 14:35		Lab TAL SAV TAL SAV
Total/NA	Analysis Instrumer	350.1 nt ID: KONELAB1		10	2 mL	2 mL	384906	05/26/15 17:00	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:29	GRX	TAL SAV

Client Sample ID: PDMW-30P_05202015 Lab Sample ID: 680-112765-13

Date Collected: 05/20/15 16:00 **Matrix: Water** Date Received: 05/21/15 08:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:40	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	384906	05/26/15 17:00	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384265	05/21/15 18:30	GRX	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

COC# 20, 1 20 2	HOR G No	Project #: 6-4300-5245	PM: Aaron Getchell	Email:	(18/18)626-1541	COMMENTS LAB USE	NALYSIS		garanaku		رط حوا د	יי הפסי	2 7 7		×	×	Х У У	XXX	× ×	× × ×	X	× ×	× ×	×	Comments & Special Analytical Requirements:	127105) o	Custody Seal# LAB Log Number #	INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC TAL-6006 (050)
	P: 912-354-7858 F: 912-352-0165 4720 P: 330-497-9396 F: 330-497-0772 P: 813-885-7427 F: 813-885-7049 P: 850-474-1001 F: 850-478-2671 28 P: 716-691-2600 F: 716-961-7991 708-534-5200 F: 708-534-5211	ION	Amec Fister Wheeler	Rd Ste 100	N 37211		METHODS FOR ANALYSIS			رر هر و مرد	112	*S. +! /+! /+!	1	1	× × ×	× × ×	× × ×	× ×	× × ×	× × ×	× × ×	× × ×	× × ×	× × ×	Stalles on S	Date/Time:	Date/Time:	LAB USE: Custody Intact No	INVOICE MUST BE SUBMITTE
	P: 912- 14720 P: 810- P: 850- 28 P: 708-53	CONSULTANT INFORMATION	Company: Amec E	Addression Ezell	1, ~	ric Acid Note	4 = Sodium Thiosulfate Pres.	5 = Sodium Hydroxide Code 6 = Other	I LIQ = Liquid	gge	SOL = Other Solid		Filtered Type Matrix	Y or N Comp Code or Grab	N 6 6W	N 6 GW	以 C G の	い り り ス	ك ك ك	N 6 6W	N 6 6W	is 6 6W	N 6 66	N 6 6W	Za Za	8			
ORY INFORMATION	Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 P. Sorannah - 5102 LaRoche Avenue, Savannah, GA 31404 44: North Canton - 4101 Shuffel Drive NW, North Canton, 0H 44: Tampa - 6712 Benjamin Road, Sulte 100, Tampa, FL 33634 Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 Chicago - 2417 Bond Street, University Park, IL 60466 P: 7	Proj. State (State of Origin) (5A	Proj. City: Savenne		7 47021C	Codes: 3 = Sulfuric Acid			SO = Soil	water SL = Sludge	.		Sample Collection	Time Sampler	1105 PG	0925 33	. 0855 P6	- PG	1010 PG	; - P6	CC FH01	1315 27	1325	1436 JJ	Received By:	Received By:	Received By:	Lab Remarks:	The state of the s
I ARORATOR	/1	Proj. State (Stat	Proj. City:	_		Preservat	0 = No Preservatives	1 = Hydrochloric Acid 2 = Nitric Acid	Matrix Codes:	GW = Groundwater				. & Date	5/20/5	5/10/15	5/2015	5/20/15	5/20/15	5/20/15	5/20/15	5/20/15	5/20/15	2/100/12	In the second	06,3151		::	And the second s
	CHAIN OF CUSTODY	Military and the second of the	75	Tisland		Standard 6-13 Days	Specify # Days	Standard 14 Days Other	Jeliv:	L	EDD Required, Format:		Containers	Number & Type	4 ZIOZ	75.4	5 4	4 SI	5 4	15 4	5 4	205 4	p Sic	12 7	Date/Time:	a ta	Date/Time	Date/Time:	I SAMPLES
	CH/ TRANSPORTATION CUS	CSXT PROJECT INFORMATION	CSXT Project Number: 9415575		CSXT Contact: Som ROSS	×	1		Deliverables:	iandard (Level II)	Level IV	SAMPLE INFORMATION		Sample Identification	Pry 10R-05202015	5(020250 854-MWCA		2019-03-05202015	EW-01-05202015	DUP-02-05202015	mw-1-0520201	PDMW-8R-05202015	PDMW-19P-05202015	PMMW-47-05202015	Min 5	Relinquisifel M	Relinquished By:	Received By Laboratory:	ORIGINAL – RETURN TO LABORATORY WITH SAMPLES

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc Job Number: 680-112765-1

Login Number: 112765 List Source: TestAmerica Savannah

List Number: 1

Creator: Barnett, Eddie T

oreator. Darriett, Lutile 1		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112765-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15 *

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^{*} Certification renewal pending - certification considered valid.

TestAmerica Savannah



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-112797-1

Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

Sion Hovey

Authorized for release by: 6/4/2015 9:54:02 AM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Job ID: 680-112797-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Foster Wheeler E & I, Inc
Project: CSX GA, Hutchinson Island, VRP
Report Number: 680-112797-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 5/21/2015 4:21 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.0° C and 5.2° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TMW_1_05212015 (680-112797-7), DUP_01_05212015 (680-112797-8), EB-01_05212015 (680-112797-9), FB-01_05212015 (680-112797-10) and Trip Blank (680-112797-16) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/28/2015.

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory: TMW_1_05212015 (680-112797-7) and DUP 01 05212015 (680-112797-8). All of the sample vials have HCL stickers.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples TMW_1_05212015 (680-112797-7), DUP_01_05212015 (680-112797-8), EB-01_05212015 (680-112797-9) and FB-01_05212015 (680-112797-10) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/27/2015 and analyzed on 06/02/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICP)

Samples PDMW-29D_05212015 (680-112797-5), PDMW-26T_05212015 (680-112797-6), TMW_1_05212015 (680-112797-7), DUP_01_05212015 (680-112797-8), EB-01_05212015 (680-112797-9), FB-01_05212015 (680-112797-10) and EB-02_05212015 (680-112797-15) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 05/26/2015 and 05/27/2015 and 05/27/2015 and 05/27/2015 and 05/27/2015 and 05/28/2015.

Arsenic failed the recovery criteria low for the MSD of sample TMW_1_05212015 (680-112797-7) in batch 680-385189. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples SW-04_05212015_LOW (680-112797-1), SW-03_05212015_LOW (680-112797-2), SW-02_05212015_LOW (680-112797-3), SW-01_05212015_LOW (680-112797-4), SW-02_05212015_HIGH (680-112797-11), SW-01_05212015_HIGH (680-112797-12), SW-03_05212015_HIGH (680-112797-13) and SW-04_05212015_HIGH (680-112797-14) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 05/28/2015 and 05/29/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Job ID: 680-112797-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

AMMONIA

Samples SW-04_05212015_LOW (680-112797-1), SW-03_05212015_LOW (680-112797-2), SW-02_05212015_LOW (680-112797-3), SW-01_05212015_LOW (680-112797-4), PDMW-29D_05212015 (680-112797-5), PDMW-26T_05212015 (680-112797-6), TMW_1_05212015 (680-112797-7), DUP_01_05212015 (680-112797-8), EB-01_05212015 (680-112797-9), FB-01_05212015 (680-112797-10), SW-02_05212015_HIGH (680-112797-11), SW-01_05212015_HIGH (680-112797-12), SW-03_05212015_HIGH (680-112797-13), SW-04_05212015_HIGH (680-112797-14) and EB-02_05212015 (680-112797-15) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/27/2015.

Method(s) 350.1: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 6: TMW_1_05212015 (680-112797-7) and DUP_01_05212015 (680-112797-8). The samples were preserved to the appropriate pH in the laboratory.

Ammonia recovery is outside criteria high for the MS of sample TMW 1 05212015 (680-112797-7) in batch 680-384908.

Ammonia recovery is outside criteria low for the MSD of sample TMW 1 05212015 (680-112797-7) in batch 680-384908.

Refer to the QC report for details.

Samples SW-04_05212015_LOW (680-112797-1)[2X], PDMW-29D_05212015 (680-112797-5)[10X], PDMW-26T_05212015 (680-112797-6)[500X], TMW_1_05212015 (680-112797-7)[5000X], DUP_01_05212015 (680-112797-8)[2000X] and SW-02_05212015_HIGH (680-112797-11)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples SW-04_05212015_LOW (680-112797-1), SW-03_05212015_LOW (680-112797-2), SW-02_05212015_LOW (680-112797-3), SW-01_05212015_LOW (680-112797-4), PDMW-29D_05212015 (680-112797-5), PDMW-26T_05212015 (680-112797-6), TMW_1_05212015 (680-112797-7), DUP_01_05212015 (680-112797-8), EB-01_05212015 (680-112797-9), FB-01_05212015 (680-112797-10), SW-02_05212015_HIGH (680-112797-11), SW-01_05212015_HIGH (680-112797-12), SW-03_05212015_HIGH (680-112797-13), SW-04_05212015_HIGH (680-112797-14) and EB-02_05212015 (680-112797-15) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 05/21/2015.

Nitrate Nitrite as N and Nitrite as N have recovery outside criteria low for the MS and/or MSD of sample TMW_1_05212015 (680-112797-7) in batch 680-384267. Refer to the QC report for details.

Samples TMW_1_05212015 (680-112797-7)[1000X] and DUP_01_05212015 (680-112797-8)[1000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Qualifiers

GC/MS VOA

U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Metals

U Indicates the analyte was analyzed for but not detected.

F1 MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

F1 MS and/or MSD Recovery is outside acceptance limits.

4 MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not

applicable.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Example 2 Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Savannah

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Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-112797-1	SW-04_05212015_LOW	Water	05/21/15 08:20	05/21/15 16:21
680-112797-2	SW-03_05212015_LOW	Water	05/21/15 08:45	05/21/15 16:21
680-112797-3	SW-02_05212015_LOW	Water	05/21/15 09:02	05/21/15 16:21
680-112797-4	SW-01_05212015_LOW	Water	05/21/15 09:15	05/21/15 16:21
680-112797-5	PDMW-29D_05212015	Water	05/21/15 10:26	05/21/15 16:21
680-112797-6	PDMW-26T_05212015	Water	05/21/15 11:32	05/21/15 16:21
680-112797-7	TMW_1_05212015	Water	05/21/15 10:40	05/21/15 16:21
680-112797-8	DUP_01_05212015	Water	05/21/15 00:00	05/21/15 16:21
680-112797-9	EB-01_05212015	Water	05/21/15 12:40	05/21/15 16:21
680-112797-10	FB-01_05212015	Water	05/21/15 13:00	05/21/15 16:21
680-112797-11	SW-02_05212015_HIGH	Water	05/21/15 12:10	05/21/15 16:21
680-112797-12	SW-01_05212015_HIGH	Water	05/21/15 12:20	05/21/15 16:21
680-112797-13	SW-03_05212015_HIGH	Water	05/21/15 13:00	05/21/15 16:21
680-112797-14	SW-04_05212015_HIGH	Water	05/21/15 13:10	05/21/15 16:21
680-112797-15	EB-02_05212015	Water	05/21/15 13:30	05/21/15 16:21
680-112797-16	Trip Blank	Water	05/21/15 00:00	05/21/15 16:21

Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-1

Matrix: Water

Client Sample ID: SW-04_05212015_LOW Date Collected: 05/21/15 08:20

Date Received: 05/21/15 16:21

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	120		5.0		mg/L			05/28/15 18:02	1
Ammonia	1.5		0.50		mg/L			05/27/15 09:59	2
Nitrate as N	0.17		0.050		mg/L			05/21/15 19:23	1
Nitrate Nitrite as N	0.27		0.050		mg/L			05/21/15 19:23	1
Nitrite as N	0.094		0.050		mg/L			05/21/15 19:23	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-03_05212015_LOW

Lab Sample ID: 680-112797-2 Matrix: Water

05/21/15 19:25

Date Collected: 05/21/15 08:45 Date Received: 05/21/15 16:21

Nitrite as N

General Chemistry							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	120	5.0	mg/L			05/28/15 18:38	1
Ammonia	0.80	0.25	mg/L			05/27/15 09:05	1
Nitrate as N	0.21	0.050	mg/L			05/21/15 19:25	1
Nitrate Nitrite as N	0.23	0.050	mg/L			05/21/15 19:25	1

0.050

mg/L

0.050 U

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-02_05212015_LOW Lab Sample ID: 680-112797-3

Date Collected: 05/21/15 09:02 Matrix: Water

Date Collected: 05/21/15 09:02 Matrix: water Date Received: 05/21/15 16:21

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	130		5.0		mg/L			05/29/15 08:11	1
Ammonia	1.5		0.25		mg/L			05/27/15 09:05	1
Nitrate as N	0.28		0.050		mg/L			05/21/15 19:26	1
Nitrate Nitrite as N	0.37		0.050		mg/L			05/21/15 19:26	1
Nitrite as N	0.085		0.050		mg/L			05/21/15 19:26	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-01_05212015_LOW

Lab Sample ID: 680-112797-4 Date Collected: 05/21/15 09:15 **Matrix: Water**

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	77		5.0		mg/L			05/28/15 20:27	1
Ammonia	0.62		0.25		mg/L			05/27/15 09:05	1
Nitrate as N	0.27		0.050		mg/L			05/21/15 19:28	1
Nitrate Nitrite as N	0.31		0.050		mg/L			05/21/15 19:28	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 19:28	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: PDMW-29D_05212015

Lab Sample ID: 680-112797-5 Date Collected: 05/21/15 10:26 **Matrix: Water**

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:44	1
Lead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:44	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia			2.5		mg/L			05/27/15 11:36	10
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 19:29	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 19:29	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 19:29	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: PDMW-26T_05212015

Date Collected: 05/21/15 11:32 Date Received: 05/21/15 16:21 Lab Sample ID: 680-112797-6

Matrix: Water

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	25		20		ug/L		05/27/15 14:38	05/28/15 18:27	1
Lead	10	U	10		ug/L		05/27/15 14:38	05/28/15 18:27	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	550		130		mg/L			05/27/15 13:18	500
Nitrate as N	0.26		0.050		mg/L			05/21/15 19:30	1
Nitrate Nitrite as N	0.28		0.050		mg/L			05/21/15 19:30	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 19:30	1

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RL

1.0

1.0

1.0

1.0

Limits

70 - 130

MDL Unit

ug/L

ug/L

ug/L

ug/L

D

Prepared

Prepared

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: TMW 1 05212015

Method: 8270D - Semivolatile Organic C

Method: 8260B - Volatile Organic Compounds (GC/MS)

Result Qualifier

Qualifier

47

1.0

110

106

%Recovery

1.0 U

Date Collected: 05/21/15 10:40

Date Received: 05/21/15 16:21

Analyte

Toluene

Surrogate

Analyte Acenaphthene

Acenaphthylene

Benzo[a]pyrene

Benzo[b]fluoranthene

Benzo[g,h,i]perylene Benzo[k]fluoranthene

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

1-Methylnaphthalene

2-Methylnaphthalene **Naphthalene**

Anthracene Benzo[a]anthracene

Chrysene

Fluorene

Fluoranthene

Phenanthrene

Pyrene

Surrogate

Analyte

Arsenic

Lead

Nickel

Zinc

Analyte

Ammonia

Nitrate as N

Nitrate Nitrite as N

Chromium

2-Fluorobiphenyl

Nitrobenzene-d5 (Surr)

General Chemistry

Method: 6010C - Metals (ICP)

Terphenyl-d14 (Surr)

Benzene

Ethylbenzene

Xylenes, Total

Toluene-d8 (Surr)

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane (Surr)

4-Bromofluorobenzene (Surr)

TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-7

Analyzed

05/28/15 16:25

05/28/15 16:25

05/28/15 16:25

05/28/15 16:25

Analyzed

05/28/15 16:25

Matrix: Water

Dil Fac

Dil Fac

,	00/20/10 10.20					70 - 750		700
1	05/28/15 16:25					70 - 130		119
1	05/28/15 16:25					70 - 130		115
1	05/28/15 16:25					70 - 130		96
Dil Fac	Analyzed	Prepared	D	Unit	MDL	(GC/MS)	mpounds Qualifier	anic Co
1	06/02/15 20:01		_ <u>-</u>	ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L ug/L		9.7 9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
· · · · · · · · · · · · · · · · · · ·		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
1		05/27/15 15:58		ug/L		9.7		9.7
· · · · · · · · · · · · · · · · · · ·		05/27/15 15:58		ug/L ug/L		9.7		40
1		05/27/15 15:58		ug/L ug/L		9.7	П	9.7
1		05/27/15 15:58		ug/L ug/L		9.7		9.7
'	00/02/13 20.01	03/27/13 13.36		ug/L		9.1	U	9.1
Dil Fac	Analyzed	Prepared				Limits	Qualifier	Recovery
1	06/02/15 20:01					32 - 114		55
1		05/27/15 15:58				30 - 117		65
1	06/02/15 20:01	05/27/15 15:58				10 - 132		30
Dil Fac	Analyzed	Prepared	D	Unit	MDL	RL	Qualifier	Result
1		05/27/15 14:38	<u>-</u>	ug/L		20		160
1		05/27/15 14:38		ug/L		10		32
1	05/28/15 18:32	05/27/15 14:38		ug/L		10	U	10
								40
	05/28/15 18:32	05/27/15 14:38		ua/L		40	U	
1				ug/L ug/L		40 20	U	77
1		05/27/15 14:38					U	
1 1 Dil Fac	05/28/15 18:32 Analyzed	05/27/15 14:38	D	ug/L Unit	MDL	20 RL	Qualifier	77 Result
1 1 Dil Fac 5000	05/28/15 18:32 Analyzed 05/27/15 11:27	05/27/15 14:38 05/27/15 14:38	<u>D</u>	ug/L Unit mg/L	MDL	20 RL 1300		77 Result 4300
1 1 Dil Fac	05/28/15 18:32 Analyzed	05/27/15 14:38 05/27/15 14:38	<u>D</u>	ug/L Unit	MDL	20 RL	Qualifier	77 Result

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: TMW_1_05212015

Lab Sample ID: 680-112797-7

Matrix: Water

Date Collected: 05/21/15 10:40 Date Received: 05/21/15 16:21

General	Chemistry	(Continued)
Ochlera		(Continued)

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	50 U F1	50	mg/L			05/21/15 19:37	1000

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: DUP_01_05212015

Date Collected: 05/21/15 00:00

Date Received: 05/21/15 16:21

Ammonia

Nitrate as N

Nitrate Nitrite as N

TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-8

Matrix: Water

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Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	48		1.0		ug/L			05/28/15 16:48	
Ethylbenzene	1.0	U	1.0		ug/L			05/28/15 16:48	
Toluene	1.0	U	1.0		ug/L			05/28/15 16:48	
Xylenes, Total	120		1.0		ug/L			05/28/15 16:48	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	107		70 - 130					05/28/15 16:48	
1,2-Dichloroethane-d4 (Surr)	114		70 - 130					05/28/15 16:48	
Dibromofluoromethane (Surr)	112		70 - 130					05/28/15 16:48	
4-Bromofluorobenzene (Surr)	95		70 - 130					05/28/15 16:48	
Method: 8270D - Semivolati	ile Organic Co	mpounds	(GC/MS)						
Analyte		Qualifier	ŘL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Acenaphthylene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Anthracene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Benzo[a]anthracene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Benzo[a]pyrene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Benzo[b]fluoranthene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Benzo[g,h,i]perylene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Benzo[k]fluoranthene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Chrysene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Dibenz(a,h)anthracene	9.9	Ü	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Fluoranthene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Fluorene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Indeno[1,2,3-cd]pyrene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
1-Methylnaphthalene	11		9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
2-Methylnaphthalene	11		9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Naphthalene	44		9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Phenanthrene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Pyrene	9.9	U	9.9		ug/L		05/27/15 15:58	06/02/15 20:27	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl	63		32 - 114				05/27/15 15:58	06/02/15 20:27	
Nitrobenzene-d5 (Surr)	70		30 - 117				05/27/15 15:58	06/02/15 20:27	
Terphenyl-d14 (Surr)	36		10 - 132				05/27/15 15:58	06/02/15 20:27	
Method: 6010C - Metals (IC	P)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	140		20		ug/L			05/28/15 18:55	
Chromium	19		10		ug/L			05/28/15 18:55	
Lead	10		10		ug/L			05/28/15 18:55	
Nickel	40	U	40		ug/L		05/27/15 14:38	05/28/15 18:55	
Zinc	72		20		ug/L		05/27/15 14:38	05/28/15 18:55	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa

TestAmerica Savannah

05/27/15 10:00

05/21/15 19:31

05/21/15 19:31

500

50

50

3700

280

290

mg/L

mg/L

mg/L

2000

1000

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: DUP_01_05212015

Lab Sample ID: 680-112797-8

Matrix: Water

Date Collected: 05/21/15 00:00 Date Received: 05/21/15 16:21

General Chemistry (Continued)

E

6

7

8

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111

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: EB-01 05212015

Date Collected: 05/21/15 12:40

Date Received: 05/21/15 16:21

TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-9

Matrix: Water

6

Method: 8260B - Volatile Organic Compounds (GC/MS) RL **MDL** Unit Dil Fac Analyte Result Qualifier D Analyzed Prepared Benzene 1.0 U 1.0 05/28/15 12:39 ug/L Ethylbenzene 1.0 U 05/28/15 12:39 1.0 ug/L Toluene 1.0 U 1.0 ug/L 05/28/15 12:39 ug/L Xylenes, Total 1.0 1.0 05/28/15 12:39 %Recovery Surrogate Qualifier Limits Prepared Dil Fac Analyzed 99 Toluene-d8 (Surr) 70 - 130 05/28/15 12:39 117 70 - 130 05/28/15 12:39 1,2-Dichloroethane-d4 (Surr) Dibromofluoromethane (Surr) 111 70 - 13005/28/15 12:39 4-Bromofluorobenzene (Surr) 95 70 - 130 05/28/15 12:39 Method: 8270D - Semivolatile Organic Compounds (GC/MS) Result Qualifier ŔL **MDL** Unit D Prepared Dil Fac **Analyte** Analyzed 9.8 U 9.8 05/27/15 15:58 Acenaphthene ug/L 06/02/15 20:53 9.8 U Acenaphthylene 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 1 05/27/15 15:58 Anthracene 9.8 U 9.8 ug/L 06/02/15 20:53 1 Benzo[a]anthracene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 06/02/15 20:53 Benzo[a]pyrene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Benzo[b]fluoranthene 98 U 98 ug/L 05/27/15 15:58 9.8 U 9.8 06/02/15 20:53 Benzo[g,h,i]perylene ug/L 05/27/15 15:58 9.8 U 05/27/15 15:58 06/02/15 20:53 Benzo[k]fluoranthene 9.8 ug/L 06/02/15 20:53 Chrysene 98 U 98 ug/L 05/27/15 15:58 Dibenz(a,h)anthracene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Fluoranthene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Fluorene 9.8 U 98 ug/L 05/27/15 15:58 06/02/15 20:53 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Indeno[1,2,3-cd]pyrene 1-Methylnaphthalene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 2-Methylnaphthalene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Naphthalene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Phenanthrene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 Pyrene 9.8 U 9.8 ug/L 05/27/15 15:58 06/02/15 20:53 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 2-Fluorobiphenyl 71 32 - 114 05/27/15 15:58 06/02/15 20:53 85 Nitrobenzene-d5 (Surr) 30 - 117 05/27/15 15:58 06/02/15 20:53 Terphenyl-d14 (Surr) 77 10 - 132 05/27/15 15:58 06/02/15 20:53 Method: 6010C - Metals (ICP) Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac 20 Ū 20 Arsenic ug/L 05/26/15 10:40 05/27/15 14:49 Chromium 10 U 10 ug/L 05/26/15 10:40 05/27/15 14:49 Lead 10 U 10 ug/L 05/26/15 10:40 05/27/15 14:49 1 Nickel 40 Ü 40 ug/L 05/26/15 10:40 05/27/15 14:49 Zinc 20 U 20 ug/L 05/26/15 10:40 05/27/15 14:49 **General Chemistry** Result Qualifier RL **MDL** Unit **Analyte** n Prepared Analyzed Dil Fac **Ammonia** 0.31 0.25 mg/L 05/27/15 08:55 Nitrate as N 0.050 U 0.050 mg/L 05/21/15 19:32 1 Nitrate Nitrite as N 0.050 U 0.050 mg/L 05/21/15 19:32

TestAmerica Savannah

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: EB-01_05212015

Lab Sample ID: 680-112797-9

Date Collected: 05/21/15 12:40 Date Received: 05/21/15 16:21 Matrix: Water

General Chemistry (Continued)

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.050 U	0.050	mg/L			05/21/15 19:32	

3

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10

11

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: FB-01_05212015

Date Collected: 05/21/15 13:00

Date Received: 05/21/15 16:21

General Chemistry

Analyte

Ammonia

Nitrate as N

Nitrate Nitrite as N

TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-10 Matrix: Water

Method: 8260B - Volatile Orga ^{Analyte}	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Benzene	1.0	U	1.0		ug/L			05/28/15 13:01	
Ethylbenzene	1.0	U	1.0		ug/L			05/28/15 13:01	
Toluene	1.0	U	1.0		ug/L			05/28/15 13:01	
Xylenes, Total	1.0	U	1.0		ug/L			05/28/15 13:01	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
Toluene-d8 (Surr)	98		70 - 130					05/28/15 13:01	
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					05/28/15 13:01	
Dibromofluoromethane (Surr)	109		70 - 130					05/28/15 13:01	
4-Bromofluorobenzene (Surr)	94		70 - 130					05/28/15 13:01	
Method: 8270D - Semivolatile						_			5
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil F
Acenaphthene	9.7		9.7		ug/L			06/02/15 21:18	
Acenaphthylene	9.7		9.7		ug/L			06/02/15 21:18	
Anthracene	9.7		9.7		ug/L			06/02/15 21:18	
Benzo[a]anthracene	9.7	-	9.7		ug/L			06/02/15 21:18	
Benzo[a]pyrene	9.7		9.7		ug/L			06/02/15 21:18	
Benzo[b]fluoranthene	9.7		9.7		ug/L			06/02/15 21:18	
Benzo[g,h,i]perylene	9.7		9.7		ug/L			06/02/15 21:18	
Benzo[k]fluoranthene	9.7		9.7		ug/L			06/02/15 21:18	
Chrysene	9.7		9.7		ug/L			06/02/15 21:18	
Dibenz(a,h)anthracene	9.7		9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Fluoranthene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Fluorene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
ndeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
1-Methylnaphthalene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
2-Methylnaphthalene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Naphthalene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Phenanthrene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Pyrene	9.7	U	9.7		ug/L		05/27/15 15:58	06/02/15 21:18	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil
2-Fluorobiphenyl	69		32 - 114				05/27/15 15:58		
Nitrobenzene-d5 (Surr)	79		30 - 117				05/27/15 15:58	06/02/15 21:18	
Terphenyl-d14 (Surr)	73		10 - 132				05/27/15 15:58	06/02/15 21:18	
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil
Arsenic	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:53	
Chromium	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:53	
_ead	10	U	10		ug/L		05/26/15 10:40	05/27/15 14:53	
Nickel	40	U	40		ug/L		05/26/15 10:40	05/27/15 14:53	
Zinc	20	U	20		ug/L		05/26/15 10:40	05/27/15 14:53	

TestAmerica Savannah

Analyzed

05/27/15 08:55

05/21/15 19:34

05/21/15 19:34

Prepared

RL

0.25

0.050

0.050

MDL Unit

mg/L

mg/L

mg/L

Result Qualifier

0.25 U

0.050 U

0.050 U

Dil Fac

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: FB-01_05212015

TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-10

Matrix: Water

Date Collected: 05/21/15 13:00 Date Received: 05/21/15 16:21

General Chemistry (Continued)AnalyteResult
Nitrite as NQualifier
URL
0.050MDL
mg/LUnit
mg/LD
p
mg/LPrepared
0.5/21/15 19:34Analyzed
0.5/21/15 19:34Dil Fac
0.5/21/15 19:34

5

6

9

11

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-02_05212015_HIGH

Lab Sample ID: 680-112797-11

Date Collected: 05/21/15 12:10 Date Received: 05/21/15 16:21

Matrix:	Water
wati ix.	vvalei

General Chemistry Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	39		5.0		mg/L			05/28/15 18:16	1
Ammonia	0.52		0.50		mg/L			05/27/15 10:19	2
Nitrate as N	0.29		0.050		mg/L			05/21/15 19:38	1
Nitrate Nitrite as N	0.30		0.050		mg/L			05/21/15 19:38	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 19:38	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Date Received: 05/21/15 16:21

Nitrate Nitrite as N

Nitrite as N

TestAmerica Job ID: 680-112797-1

05/21/15 19:39

05/21/15 19:39

Client Sample ID: SW-01 05212015 HIGH

Lab Sample ID: 680-112797-12 Date Collected: 05/21/15 12:20

mg/L

mg/L

Matrix: Water

Dil Fac

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	ı
Alkalinity	39		5.0		mg/L			05/28/15 18:09	
Ammonia	0.41		0.25		mg/L			05/27/15 08:55	
Nitrate as N	0.28		0.050		mg/L			05/21/15 19:39	

0.050

0.050

0.29

0.050 U

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-03_05212015_HIGH

Lab Sample ID: 680-112797-13 Date Collected: 05/21/15 13:00

Matrix: Water

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Alkalinity	71	5.0	mg/L		05/28/15 18:23	1
Ammonia	0.91	0.25	mg/L		05/27/15 09:05	1
Nitrate as N	0.27	0.050	mg/L		05/21/15 19:41	1
Nitrate Nitrite as N	0.32	0.050	mg/L		05/21/15 19:41	1
Nitrite as N	0.050 U	0.050	ma/l		05/21/15 19:41	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Client Sample ID: SW-04_05212015_HIGH

Lab Sample ID: 680-112797-14 Date Collected: 05/21/15 13:10

Matrix: Water

General Chemistry Analyte	Result Qua	alifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	100	5.0	mg/L			05/28/15 18:31	1
Ammonia	0.83	0.25	mg/L			05/27/15 09:05	1
Nitrate as N	0.25	0.050	mg/L			05/21/15 19:42	1
Nitrate Nitrite as N	0.31	0.050	mg/L			05/21/15 19:42	1
Nitrite as N	0.060	0.050	mg/L			05/21/15 19:42	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-15

Matrix: Water

Client Sample ID: EB-02_05212015 Date Collected: 05/21/15 13:30

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
20	U	20		ug/L		05/26/15 10:40	05/27/15 15:01	1
10	U	10		ug/L		05/26/15 10:40	05/27/15 15:01	1
40	U	40		ug/L		05/26/15 10:40	05/27/15 15:01	1
20	U	20		ug/L		05/26/15 10:40	05/27/15 15:01	1
	20 10 40	Result Qualifier	20 U 20 10 U 10 40 U 40	20 U 20 10 U 10 40 U 40	20 U 20 ug/L 10 U 10 ug/L 40 U 40 ug/L	20 U 20 ug/L 10 U 10 ug/L 40 U 40 ug/L	20 U 20 ug/L 05/26/15 10:40 10 U 10 ug/L 05/26/15 10:40 40 U 40 ug/L 05/26/15 10:40	20 U 20 ug/L 05/26/15 10:40 05/27/15 15:01 10 U 10 ug/L 05/26/15 10:40 05/27/15 15:01 40 U 40 ug/L 05/26/15 10:40 05/27/15 15:01

General Chemistry Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25 L	J	0.25		mg/L			05/27/15 09:05	1
Nitrate as N	0.050 L	J	0.050		mg/L			05/21/15 19:43	1
Nitrate Nitrite as N	0.050 L	J	0.050		mg/L			05/21/15 19:43	1
Nitrite as N	0.050 L	j	0.050		mg/L			05/21/15 19:43	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Lab Sample ID: 680-112797-16

Matrix: Water

Client Sample ID: Trip Blank Date Collected: 05/21/15 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			05/28/15 11:31	1
Ethylbenzene	1.0	U	1.0		ug/L			05/28/15 11:31	1
Toluene	1.0	U	1.0		ug/L			05/28/15 11:31	1
Xylenes, Total	1.0	U	1.0		ug/L			05/28/15 11:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130					05/28/15 11:31	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					05/28/15 11:31	1
Dibromofluoromethane (Surr)	112		70 - 130					05/28/15 11:31	1
4-Bromofluorobenzene (Surr)	96		70 - 130					05/28/15 11:31	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-384972/9

Matrix: Water

Analysis Batch: 384972

Client Sample ID: Method Blank

Prep Type: Total/NA

ı		IVID	IVID							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	1.0	U	1.0		ug/L			05/28/15 11:00	1
ı	Ethylbenzene	1.0	U	1.0		ug/L			05/28/15 11:00	1
	Toluene	1.0	U	1.0		ug/L			05/28/15 11:00	1
	Xylenes, Total	1.0	U	1.0		ug/L			05/28/15 11:00	1
ı										

MB MB Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed Toluene-d8 (Surr) 98 70 - 130 05/28/15 11:00 1,2-Dichloroethane-d4 (Surr) 115 70 - 130 05/28/15 11:00 Dibromofluoromethane (Surr) 108 70 - 130 05/28/15 11:00 4-Bromofluorobenzene (Surr) 97 70 - 130 05/28/15 11:00

Lab Sample ID: LCS 680-384972/4

Matrix: Water

Analysis Batch: 384972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS		%Rec.	
Analyte	Added	Result	Qualifier Un	it D %Rec	Limits	
Benzene	50.0	45.7	ug/	L 91	73 - 131	
Ethylbenzene	50.0	51.8	ug/	L 104	80 - 120	
Toluene	50.0	49.0	ug/	L 98	80 - 122	
Xylenes, Total	100	108	ug/	L 108	80 - 120	
	Benzene Ethylbenzene Toluene	Analyte Added Benzene 50.0 Ethylbenzene 50.0 Toluene 50.0	Analyte Added Result Benzene 50.0 45.7 Ethylbenzene 50.0 51.8 Toluene 50.0 49.0	Analyte Added Result Qualifier Under Und	Analyte Added Benzene Result ug/L Unit ug/L D 91 %Rec Benzene 50.0 45.7 ug/L 91 Ethylbenzene 50.0 51.8 ug/L 104 Toluene 50.0 49.0 ug/L 98	Analyte Added Benzelle Result Qualifier Unit Ug/L D %Rec Umits Limits Benzene 50.0 45.7 ug/L 91 73 - 131 Ethylbenzene 50.0 51.8 ug/L 104 80 - 120 Toluene 50.0 49.0 ug/L 98 80 - 122

LCS LCS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 99 70 - 130 1,2-Dichloroethane-d4 (Surr) 119 70 - 130 Dibromofluoromethane (Surr) 111 70 - 130 4-Bromofluorobenzene (Surr) 70 - 130 99

Lab Sample ID: LCSD 680-384972/5

Matrix: Water

Analysis Batch: 384972

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50.0	46.5		ug/L		93	73 - 131	2	30
Ethylbenzene	50.0	52.1		ug/L		104	80 - 120	1	20
Toluene	50.0	49.5		ug/L		99	80 - 122	1	20
Xylenes, Total	100	109		ug/L		109	80 - 120	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	119		70 - 130
Dibromofluoromethane (Surr)	110		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

TestAmerica Savannah

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6/4/2015

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-112797-7 MS

Matrix: Water

Analysis Batch: 384972

Client Sample ID: TMW_1_05212015

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	47		50.0	92.0		ug/L		90	73 - 131	
Ethylbenzene	1.0	U	50.0	50.6		ug/L		101	80 - 120	
Toluene	1.0	U	50.0	49.5		ug/L		99	80 - 122	
Xylenes, Total	110		100	224		ug/L		111	80 - 120	

MS MS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 70 - 130 100 1,2-Dichloroethane-d4 (Surr) 116 70 - 130 Dibromofluoromethane (Surr) 108 70 - 130 4-Bromofluorobenzene (Surr) 86 70 - 130

Lab Sample ID: 680-112797-7 MSD

Matrix: Water

Analysis Batch: 384972

Client Sample ID: TMW_1_05212015

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	47		50.0	92.0		ug/L		90	73 - 131	0	30
Ethylbenzene	1.0	U	50.0	52.7		ug/L		105	80 - 120	4	20
Toluene	1.0	U	50.0	50.3		ug/L		101	80 - 122	2	20
Xylenes, Total	110		100	206		ug/L		93	80 - 120	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	114		70 - 130
Dibromofluoromethane (Surr)	109		70 - 130
4-Bromofluorobenzene (Surr)	82		70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-384797/5-A

Matrix: Water

Analysis Batch: 385722

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 384797

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Acenaphthylene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Anthracene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Benzo[a]anthracene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Benzo[a]pyrene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Benzo[b]fluoranthene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Benzo[g,h,i]perylene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Benzo[k]fluoranthene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Chrysene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Dibenz(a,h)anthracene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Fluoranthene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Fluorene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1

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Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-384797/5-A

Lab Sample ID: LCS 680-384797/6-A

Matrix: Water

Matrix: Water

Analysis Batch: 385722

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 384797

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
2-Methylnaphthalene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Naphthalene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Phenanthrene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1
Pyrene	10	U	10		ug/L		05/27/15 15:58	06/02/15 18:44	1

MD MD

	IVID	INID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		32 - 114	<u>05/27/15 15:58</u>	06/02/15 18:44	1
Nitrobenzene-d5 (Surr)	80		30 - 117	05/27/15 15:58	06/02/15 18:44	1
Terphenyl-d14 (Surr)	75		10 - 132	05/27/15 15:58	06/02/15 18:44	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 384797

Analysis Batch: 385722	Spike	LCS	LCS				Prep Batch: 384797 %Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	100	67.4		ug/L		67	32 - 107
Acenaphthylene	100	62.6		ug/L		63	10 - 119
Anthracene	100	79.1		ug/L		79	38 - 112
Benzo[a]anthracene	100	77.0		ug/L		77	36 - 115
Benzo[a]pyrene	100	72.9		ug/L		73	13 - 120
Benzo[b]fluoranthene	100	80.2		ug/L		80	32 - 117
Benzo[g,h,i]perylene	100	76.5		ug/L		76	21 - 118
Benzo[k]fluoranthene	100	72.5		ug/L		73	28 - 125
Chrysene	100	71.1		ug/L		71	36 - 113
Dibenz(a,h)anthracene	100	82.4		ug/L		82	32 - 115
Fluoranthene	100	83.0		ug/L		83	41 - 113
Fluorene	100	69.2		ug/L		69	39 - 115
Indeno[1,2,3-cd]pyrene	100	79.1		ug/L		79	16 - 119
1-Methylnaphthalene	100	68.7		ug/L		69	26 - 94
2-Methylnaphthalene	100	68.2		ug/L		68	24 - 92
Naphthalene	100	67.8		ug/L		68	24 - 85
Phenanthrene	100	78.5		ug/L		78	40 - 114
Pyrene	100	77.0		ug/L		77	29 - 118

LCS LCS

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl	64	32 - 114
Nitrobenzene-d5 (Surr)	71	30 - 117
Terphenyl-d14 (Surr)	70	10 - 132

Lab Sample ID: 680-11279	7-7 MS						Client S	Sample	ID: TMW_	1_05212015
Matrix: Water									Prep Ty	oe: Total/NA
Analysis Batch: 385722									Prep Ba	tch: 384797
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	9.7	U	97.8	67.9		ug/L		69	32 - 107	
Acenaphthylene	9.7	U	97.8	57.4		ug/L		59	10 - 119	
Anthracene	9.7	U	97.8	74.1		ug/L		76	38 - 112	

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-112797-7 MS

Matrix: Water

Analysis Batch: 385722

Client Sample ID: TMW_1_05212015 **Prep Type: Total/NA**

Prep Batch: 384797

Analysis Baton: 500722	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	9.7	U	97.8	52.4	-	ug/L		54	36 - 115
Benzo[a]pyrene	9.7	U	97.8	43.2		ug/L		44	13 - 120
Benzo[b]fluoranthene	9.7	U	97.8	45.9		ug/L		47	32 - 117
Benzo[g,h,i]perylene	9.7	U	97.8	42.6		ug/L		44	21 - 118
Benzo[k]fluoranthene	9.7	U	97.8	42.2		ug/L		43	28 - 125
Chrysene	9.7	U	97.8	48.3		ug/L		49	36 - 113
Dibenz(a,h)anthracene	9.7	U	97.8	46.4		ug/L		47	32 - 115
Fluoranthene	9.7	U	97.8	70.6		ug/L		72	41 - 113
Fluorene	9.7	U	97.8	67.8		ug/L		69	39 - 115
Indeno[1,2,3-cd]pyrene	9.7	U	97.8	48.7		ug/L		50	16 - 119
1-Methylnaphthalene	9.7	U	97.8	69.0		ug/L		61	26 - 94
2-Methylnaphthalene	9.7	U	97.8	70.9		ug/L		64	24 - 92
Naphthalene	40		97.8	96.9		ug/L		58	24 - 85
Phenanthrene	9.7	U	97.8	77.6		ug/L		79	40 - 114

97.8

62.5

ug/L

MS MS

9.7 U

Surrogate	%Recovery Qualifie	r Limits
2-Fluorobiphenyl	62	32 - 114
Nitrobenzene-d5 (Surr)	68	30 - 117
Terphenyl-d14 (Surr)	31	10 - 132

Lab Sample ID: 680-112797-7 MSD

Matrix: Water

Surrogate

2-Fluorobiphenyl

Pyrene

Analysis Batch: 385722

Client	Sample	ID: TMW	1_05212015

29 - 118

64

Prep Type: Total/NA

Prep Batch: 384797

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	9.7	U	97.4	63.1		ug/L		65	32 - 107	7	20
Acenaphthylene	9.7	U	97.4	52.4		ug/L		54	10 - 119	9	20
Anthracene	9.7	U	97.4	69.8		ug/L		72	38 - 112	6	20
Benzo[a]anthracene	9.7	U	97.4	51.7		ug/L		53	36 - 115	1	40
Benzo[a]pyrene	9.7	U	97.4	41.6		ug/L		43	13 - 120	4	40
Benzo[b]fluoranthene	9.7	U	97.4	44.8		ug/L		46	32 - 117	2	50
Benzo[g,h,i]perylene	9.7	U	97.4	41.5		ug/L		43	21 - 118	3	50
Benzo[k]fluoranthene	9.7	U	97.4	40.0		ug/L		41	28 - 125	5	40
Chrysene	9.7	U	97.4	46.7		ug/L		48	36 - 113	3	50
Dibenz(a,h)anthracene	9.7	U	97.4	41.8		ug/L		43	32 - 115	10	40
Fluoranthene	9.7	U	97.4	65.5		ug/L		67	41 - 113	7	40
Fluorene	9.7	U	97.4	64.0		ug/L		66	39 - 115	6	20
Indeno[1,2,3-cd]pyrene	9.7	U	97.4	43.9		ug/L		45	16 - 119	10	40
1-Methylnaphthalene	9.7	U	97.4	65.0		ug/L		57	26 - 94	6	50
2-Methylnaphthalene	9.7	U	97.4	66.6		ug/L		60	24 - 92	6	30
Naphthalene	40		97.4	94.7		ug/L		57	24 - 85	2	40
Phenanthrene	9.7	U	97.4	71.2		ug/L		73	40 - 114	9	40
Pyrene	9.7	U	97.4	61.5		ug/L		63	29 - 118	2	50
	MSD	MSD									

%Recovery Qualifier Limits 54 32 - 114

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-112797-7 MSD

Matrix: Water

Analysis Batch: 385722

Client Sample ID: TMW_1_05212015 Prep Type: Total/NA

Prep Batch: 384797

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	60		30 - 117
Terphenyl-d14 (Surr)	30		10 - 132

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-384639/1-A Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 384988

Prep Type: Total/NA
Prep Batch: 384639

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 20 U Arsenic 20 05/26/15 10:40 05/27/15 13:27 ug/L Chromium 10 U 10 ug/L 05/26/15 10:40 05/27/15 13:27 Lead 10 U 10 ug/L 05/26/15 10:40 05/27/15 13:27 1 Nickel 40 U 40 ug/L 05/26/15 10:40 05/27/15 13:27 Zinc 20 U 20 05/26/15 10:40 05/27/15 13:27 ug/L

LCS LCS

99.6

105

509

103

104

Result Qualifier

Unit

ug/L

ug/L

ug/L

ug/L

ug/L

Spike

Added

100

100

500

100

100

Lab Sample ID: LCS 680-384639/2-A

Matrix: Water

Analyte

Arsenic

Lead

Nickel

Zinc

Chromium

Analysis Batch: 384988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 384639

MRec.

D %Rec Limits
100 80 - 120
105 80 - 120
102 80 - 120
103 80 - 120

Lab Sample ID: MB 680-384879/1-A

Matrix: Water

Analysis Batch: 385189

Client Sample ID: Method Blank Prep Type: Total/NA

80 - 120

104

Prep Batch: 384879

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		05/27/15 14:38	05/28/15 18:18	1
Chromium	10	U	10		ug/L		05/27/15 14:38	05/28/15 18:18	1
Lead	10	U	10		ug/L		05/27/15 14:38	05/28/15 18:18	1
Nickel	40	U	40		ug/L		05/27/15 14:38	05/28/15 18:18	1
Zinc	20	U	20		ug/L		05/27/15 14:38	05/28/15 18:18	1

Lab Sample ID: LCS 680-384879/2-A

Matrix: Water

Analysis Batch: 385189

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 384879

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100	97.6		ug/L		98	80 - 120	
Chromium	100	103		ug/L		103	80 - 120	
Lead	500	492		ug/L		98	80 - 120	
Nickel	100	102		ug/L		102	80 - 120	
Zinc	100	102		ug/L		102	80 - 120	

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6

R

9

11

12

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-112797 Matrix: Water Analysis Batch: 385189	7-7 MS						Client S	Sample	ID: TMW_1_05212015 Prep Type: Total/NA Prep Batch: 384879
_	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	160	F1	100	250		ug/L		88	75 - 125
Chromium	32		100	123		ug/L		91	75 ₋ 125
Lead	10	U	500	493		ug/L		99	75 ₋ 125
Nickel	40	Ü	100	128		ug/L		95	75 - 125
Zinc	77		100	171		ug/L		94	75 - 125

Lab Sample ID: 680-112797-7 MSD Matrix: Water Analysis Batch: 385189 Sample Sample Spike MSD MSD							lient S	Sample	ID: TMW_ Prep Typ Prep Ba %Rec.	e: Tot	al/NA
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	160	F1	100	227	F1	ug/L		65	75 - 125	10	20
Chromium	32		100	120		ug/L		88	75 - 125	3	20
Lead	10	U	500	481		ug/L		96	75 - 125	3	20
Nickel	40	U	100	125		ug/L		92	75 - 125	2	20
Zinc	77		100	170		ug/L		93	75 - 125	1	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-385163/5	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 385163	
MR M	B

	IVID IVID						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0 U	5.0	mg/L			05/28/15 17:47	1

Lab Sample ID: LCS 680-385163/6	Client Sample ID: Lab Control Sample								
Matrix: Water							Prep Type: Total/NA		
Analysis Batch: 385163									
_	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Alkalinity	250	251		ma/l		100	80 120		

Alkalinity	250	251	mg/L	100	80 - 120
Lab Sample ID: LCSD 680-385163/31 Matrix: Water Analysis Batch: 385163			Client Sampl	e ID: Lab	Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Alkalinity	 250	250		mg/L		100	80 - 120	0	30

Lab Sample ID: MB 680-385222/5 Matrix: Water							ple ID: Method Prep Type: To		
Analysis Batch: 385222									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0		mg/L			05/29/15 06:16	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: LCS 680-385222/6	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
4 1 1 D () 00 TOO	

Analysis Batch: 385222

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Alkalinity	250	253		mg/L		101	80 - 120	

Lab Sample ID: LCSD 680-385222/32 **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA **Analysis Batch: 385222** Spike LCSD LCSD %Rec. **RPD** RPD Limit Added Result Qualifier Unit Limits Analyte D %Rec 250

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-384907/30	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Ratch: 384907	

264

mg/L

106

80 - 120

Analysis Batch: 384907

Alkalinity

	IVID	IVID						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U	0.25	mg/L			05/27/15 10:19	1

Lab Sample ID: LCS 680-384907/1 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA** Analysis Batch: 384907

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	 1.00	1.01		mg/L		101	90 - 110	

Lab Sample ID: LCSD 680-384907/4 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384907

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Ammonia	 1.00	1.02		mg/L	_	102	90 - 110	1	30	

Lab Sample ID: MB 680-384908/37 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384908

	MB	MB	3									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac				
Ammonia	0.25	U	0.25	mg/L			05/27/15 10:19	1				

Lab Sample ID: LCS 680-384908/1 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 294009

Analysis batch: 304900							
	5	Spike LCS	LCS			%Rec.	
Analyte	A	dded Result	Qualifier	Unit D	%Rec	Limits	
Ammonia		1.00 1.01		mg/L	101	90 - 110	

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 680-384908/10	Client Sample ID: Lab Control Sample Dup
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 384908

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia	 1.00	1.01		mg/L		101	90 - 110	0	30

Lab Sample ID: 680-112797-7 MS Client Sample ID: TMW_1_05212015 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 384908

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	4300		100	4720	4	mg/L		377	90 - 110	

Lab Sample ID: 680-112797-7 MSD Client Sample ID: TMW_1_05212015 **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 384908

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia	4300		100	3830	4	mg/L		-512	90 - 110	21	30

Lab Sample ID: 680-112797-12 DU Client Sample ID: SW-01_05212015_HIGH **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384908

Alialysis Datell. 304300									
	Sample	Sample	DU	DU				R	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD) Li	imit
Ammonia	0.41		0.400		mg/L				30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-384267/13 **Client Sample ID: Method Blank**

Matrix: Water

Analysis Batch: 384267

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			05/21/15 17:28	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			05/21/15 17:28	1
Nitrite as N	0.050	U	0.050		mg/L			05/21/15 17:28	1

Lab Sample ID: LCS 680-384267/16 **Client Sample ID: Lab Control Sample Matrix: Water**

Analysis Batch: 384267

	;	Spike	LCS	LCS				%Rec.	
Analyte	A	dded	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N		0.500	0.561		mg/L		112	75 - 125	 _
Nitrate Nitrite as N		1.00	1.06		mg/L		106	90 - 110	
Nitrite as N		0.500	0.502		mg/L		100	90 - 110	

Lab Sample ID: 680-112797-7 MS Client Sample ID: TMW_1_05212015 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384267

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	290		500	730		mg/L		88	75 - 125	

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Prep Type: Total/NA

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-112797-7 MS Client Sample ID: TMW_1_05212015 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384267

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate Nitrite as N	290	F1	1000	1130	F1	mg/L		84	90 - 110	
Nitrite as N	50	U F1	500	405	F1	mg/L		81	90 - 110	

Lab Sample ID: 680-112797-7 MSD Client Sample ID: TMW_1_05212015 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384267

MSD MSD Sample Sample Spike %Rec. **RPD** Analyte Limits Result Qualifier Added Result Qualifier Unit D %Rec RPD Limit Nitrate as N 290 500 732 mg/L 89 75 - 125 0 30 Nitrate Nitrite as N 290 F1 1000 1140 F1 mg/L 85 90 - 110 0 10 Nitrite as N 50 UF1 500 406 F1 mg/L 90 - 110 10

Lab Sample ID: 680-112797-1 DU Client Sample ID: SW-04_05212015_LOW **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 384267

DU DU **RPD** Sample Sample Analyte Result Qualifier Result Qualifier Unit RPD Limit Nitrate as N 0.17 30 0.177 mg/L 3 Nitrate Nitrite as N 0.27 0.270 2 10 mg/L Nitrite as N 0.094 0.0929 mg/L 10

TestAmerica Job ID: 680-112797-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

GC/MS VOA

Analysis Batch: 384972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-7	TMW_1_05212015	Total/NA	Water	8260B	
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	8260B	
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	8260B	
680-112797-8	DUP_01_05212015	Total/NA	Water	8260B	
680-112797-9	EB-01_05212015	Total/NA	Water	8260B	
680-112797-10	FB-01_05212015	Total/NA	Water	8260B	
680-112797-16	Trip Blank	Total/NA	Water	8260B	
LCS 680-384972/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-384972/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-384972/9	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 384797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-7	TMW_1_05212015	Total/NA	Water	3520C	
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	3520C	
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	3520C	
680-112797-8	DUP_01_05212015	Total/NA	Water	3520C	
680-112797-9	EB-01_05212015	Total/NA	Water	3520C	
680-112797-10	FB-01_05212015	Total/NA	Water	3520C	
LCS 680-384797/6-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-384797/5-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 385722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-7	TMW_1_05212015	Total/NA	Water	8270D	384797
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	8270D	384797
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	8270D	384797
680-112797-8	DUP_01_05212015	Total/NA	Water	8270D	384797
680-112797-9	EB-01_05212015	Total/NA	Water	8270D	384797
680-112797-10	FB-01_05212015	Total/NA	Water	8270D	384797
LCS 680-384797/6-A	Lab Control Sample	Total/NA	Water	8270D	384797
MB 680-384797/5-A	Method Blank	Total/NA	Water	8270D	384797

Metals

Prep Batch: 384639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-5	PDMW-29D_05212015	Total/NA	Water	3010A	
680-112797-9	EB-01_05212015	Total/NA	Water	3010A	
680-112797-10	FB-01_05212015	Total/NA	Water	3010A	
680-112797-15	EB-02_05212015	Total/NA	Water	3010A	
LCS 680-384639/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-384639/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 384879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-6	PDMW-26T_05212015	Total/NA	Water	3010A	
680-112797-7	TMW_1_05212015	Total/NA	Water	3010A	

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Metals (Continued)

Prep Batch: 384879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	3010A	
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	3010A	
680-112797-8	DUP_01_05212015	Total/NA	Water	3010A	
LCS 680-384879/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-384879/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 384988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-5	PDMW-29D_05212015	Total/NA	Water	6010C	384639
680-112797-9	EB-01_05212015	Total/NA	Water	6010C	384639
680-112797-10	FB-01_05212015	Total/NA	Water	6010C	384639
680-112797-15	EB-02_05212015	Total/NA	Water	6010C	384639
LCS 680-384639/2-A	Lab Control Sample	Total/NA	Water	6010C	384639
MB 680-384639/1-A	Method Blank	Total/NA	Water	6010C	384639

Analysis Batch: 385189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-6	PDMW-26T_05212015	Total/NA	Water	6010C	384879
680-112797-7	TMW_1_05212015	Total/NA	Water	6010C	384879
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	6010C	384879
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	6010C	384879
680-112797-8	DUP_01_05212015	Total/NA	Water	6010C	384879
LCS 680-384879/2-A	Lab Control Sample	Total/NA	Water	6010C	384879
MB 680-384879/1-A	Method Blank	Total/NA	Water	6010C	384879

General Chemistry

Analysis Batch: 384267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-1	SW-04_05212015_LOW	Total/NA	Water	353.2	_
680-112797-1 DU	SW-04_05212015_LOW	Total/NA	Water	353.2	
680-112797-2	SW-03_05212015_LOW	Total/NA	Water	353.2	
680-112797-3	SW-02_05212015_LOW	Total/NA	Water	353.2	
680-112797-4	SW-01_05212015_LOW	Total/NA	Water	353.2	
680-112797-5	PDMW-29D_05212015	Total/NA	Water	353.2	
680-112797-6	PDMW-26T_05212015	Total/NA	Water	353.2	
680-112797-7	TMW_1_05212015	Total/NA	Water	353.2	
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	353.2	
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	353.2	
680-112797-8	DUP_01_05212015	Total/NA	Water	353.2	
680-112797-9	EB-01_05212015	Total/NA	Water	353.2	
680-112797-10	FB-01_05212015	Total/NA	Water	353.2	
680-112797-11	SW-02_05212015_HIGH	Total/NA	Water	353.2	
680-112797-12	SW-01_05212015_HIGH	Total/NA	Water	353.2	
680-112797-13	SW-03_05212015_HIGH	Total/NA	Water	353.2	
680-112797-14	SW-04_05212015_HIGH	Total/NA	Water	353.2	
680-112797-15	EB-02_05212015	Total/NA	Water	353.2	
LCS 680-384267/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-384267/13	Method Blank	Total/NA	Water	353.2	

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

General Chemistry (Continued)

Analysis Batch: 384907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-1	SW-04_05212015_LOW	Total/NA	Water	350.1	
LCS 680-384907/1	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-384907/4	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-384907/30	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 384908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-2	SW-03_05212015_LOW	Total/NA	Water	350.1	
680-112797-3	SW-02_05212015_LOW	Total/NA	Water	350.1	
680-112797-4	SW-01_05212015_LOW	Total/NA	Water	350.1	
680-112797-5	PDMW-29D_05212015	Total/NA	Water	350.1	
680-112797-6	PDMW-26T_05212015	Total/NA	Water	350.1	
680-112797-7	TMW_1_05212015	Total/NA	Water	350.1	
680-112797-7 MS	TMW_1_05212015	Total/NA	Water	350.1	
680-112797-7 MSD	TMW_1_05212015	Total/NA	Water	350.1	
680-112797-8	DUP_01_05212015	Total/NA	Water	350.1	
680-112797-9	EB-01_05212015	Total/NA	Water	350.1	
680-112797-10	FB-01_05212015	Total/NA	Water	350.1	
680-112797-11	SW-02_05212015_HIGH	Total/NA	Water	350.1	
680-112797-12	SW-01_05212015_HIGH	Total/NA	Water	350.1	
680-112797-12 DU	SW-01_05212015_HIGH	Total/NA	Water	350.1	
680-112797-13	SW-03_05212015_HIGH	Total/NA	Water	350.1	
680-112797-14	SW-04_05212015_HIGH	Total/NA	Water	350.1	
680-112797-15	EB-02_05212015	Total/NA	Water	350.1	
LCS 680-384908/1	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-384908/10	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-384908/37	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 385163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-1	SW-04_05212015_LOW	Total/NA	Water	310.1	
680-112797-2	SW-03_05212015_LOW	Total/NA	Water	310.1	
680-112797-4	SW-01_05212015_LOW	Total/NA	Water	310.1	
680-112797-11	SW-02_05212015_HIGH	Total/NA	Water	310.1	
680-112797-12	SW-01_05212015_HIGH	Total/NA	Water	310.1	
680-112797-13	SW-03_05212015_HIGH	Total/NA	Water	310.1	
680-112797-14	SW-04_05212015_HIGH	Total/NA	Water	310.1	
LCS 680-385163/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-385163/31	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-385163/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 385222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-112797-3	SW-02_05212015_LOW	Total/NA	Water	310.1	
LCS 680-385222/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-385222/32	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-385222/5	Method Blank	Total/NA	Water	310.1	

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TestAmerica Job ID: 680-112797-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: SW-04 05212015 LOW Lab Sample ID: 680-112797-1

Date Collected: 05/21/15 08:20 **Matrix: Water** Date Received: 05/21/15 16:21

Dil Initial Batch Batch **Batch** Final Prepared Method Number **Prep Type** Type Run **Factor** Amount Amount or Analyzed **Analyst** Lab Total/NA Analysis 310.1 385163 05/28/15 18:02 DAM TAL SAV Instrument ID: MANTECH Total/NA Analysis 350.1 2 2 mL 2 mL 384907 05/27/15 09:59 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 ml 2 mL 384267 05/21/15 19:23 GRX TAL SAV 1 Instrument ID: LACHAT2

Client Sample ID: SW-03 05212015 LOW Lab Sample ID: 680-112797-2

Date Collected: 05/21/15 08:45 **Matrix: Water** Date Received: 05/21/15 16:21

Batch Batch Dil Initial Final Batch **Prepared Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 310.1 385163 05/28/15 18:38 DAM TAL SAV Instrument ID: MANTECH Total/NA Analysis 350.1 1 384908 05/27/15 09:05 JME TAL SAV 2 mL 2 mL Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 384267 05/21/15 19:25 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: SW-02 05212015 LOW Lab Sample ID: 680-112797-3

Date Collected: 05/21/15 09:02 **Matrix: Water** Date Received: 05/21/15 16:21

Batch Batch Dil Initial Final Batch **Prepared** Method Number Prep Type Type Run **Factor** Amount Amount or Analyzed **Analyst** Lab Total/NA 310.1 385222 05/29/15 08:11 DAM TAL SAV Analysis Instrument ID: MANTECH Total/NA 2 mL 2 mL 384908 05/27/15 09:05 JME TAL SAV Analysis 350.1 1 Instrument ID: KONELAB1 05/21/15 19:26 GRX Total/NA Analysis 353.2 2 mL 2 mL 384267 TAL SAV Instrument ID: LACHAT2

Lab Sample ID: 680-112797-4 Client Sample ID: SW-01_05212015_LOW

Date Collected: 05/21/15 09:15 **Matrix: Water** Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	310.1 nt ID: MANTECH		1			385163	05/28/15 20:27	DAM	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384908	05/27/15 09:05	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:28	GRX	TAL SAV

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-29D_05212015

Lab Sample ID: 680-112797-5 Date Collected: 05/21/15 10:26 **Matrix: Water**

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:44	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		10	2 mL	2 mL	384908	05/27/15 11:36	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:29	GRX	TAL SAV

Client Sample ID: PDMW-26T_05212015 Lab Sample ID: 680-112797-6

Date Collected: 05/21/15 11:32 **Matrix: Water**

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384879	05/27/15 14:38	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	385189	05/28/15 18:27	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		500	2 mL	2 mL	384908	05/27/15 13:18	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:30	GRX	TAL SAV

Client Sample ID: TMW_1_05212015 Lab Sample ID: 680-112797-7

Date Collected: 05/21/15 10:40 **Matrix: Water** Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B nt ID: CMSAC		1	5 mL	5 mL	384972	05/28/15 16:25	JD1	TAL SAV
Total/NA	Prep	3520C			257.5 mL	0.5 mL	384797	05/27/15 15:58	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D nt ID: CMST		1	257.5 mL	0.5 mL	385722	06/02/15 20:01	RAM	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	384879	05/27/15 14:38	BJB	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	385189	05/28/15 18:32	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		5000	2 mL	2 mL	384908	05/27/15 11:27	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1000	2 mL	2 mL	384267	05/21/15 19:37	GRX	TAL SAV

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Lab Sample ID: 680-112797-8

Client Sample ID: DUP_01_05212015 Date Collected: 05/21/15 00:00 **Matrix: Water**

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	384972	05/28/15 16:48	JD1	TAL SAV
	Instrume	nt ID: CMSAC								
Total/NA	Prep	3520C			252 mL	0.5 mL	384797	05/27/15 15:58	RBS	TAL SAV
Total/NA	Analysis	8270D		1	252 mL	0.5 mL	385722	06/02/15 20:27	RAM	TAL SAV
	Instrume	nt ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	384879	05/27/15 14:38	BJB	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	385189	05/28/15 18:55	BCB	TAL SAV
	Instrume	nt ID: ICPE								
Total/NA	Analysis	350.1		2000	2 mL	2 mL	384908	05/27/15 10:00	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		1000	2 mL	2 mL	384267	05/21/15 19:31	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: EB-01_05212015 Lab Sample ID: 680-112797-9

Date Collected: 05/21/15 12:40 Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	384972	05/28/15 12:39	JD1	TAL SAV
	Instrume	nt ID: CMSAC								
Total/NA	Prep	3520C			254.4 mL	0.5 mL	384797	05/27/15 15:58	RBS	TAL SAV
Total/NA	Analysis	8270D		1	254.4 mL	0.5 mL	385722	06/02/15 20:53	RAM	TAL SAV
	Instrume	nt ID: CMST								
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	384988	05/27/15 14:49	BCB	TAL SAV
	Instrume	nt ID: ICPE								
Total/NA	Analysis	350.1		1	2 mL	2 mL	384908	05/27/15 08:55	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	384267	05/21/15 19:32	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: FB-01_05212015

Lab Sample ID: 680-112797-10 Date Collected: 05/21/15 13:00 Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B nt ID: CMSAC		1	5 mL	5 mL	384972	05/28/15 13:01	JD1	TAL SAV
Total/NA	Prep	3520C			258.8 mL	0.5 mL	384797	05/27/15 15:58	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D nt ID: CMST		1	258.8 mL	0.5 mL	385722	06/02/15 21:18	RAM	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 14:53	ВСВ	TAL SAV

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Matrix: Water

Matrix: Water

TestAmerica Job ID: 680-112797-1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: FB-01_05212015 Lab Sample ID: 680-112797-10

Date Collected: 05/21/15 13:00 **Matrix: Water** Date Received: 05/21/15 16:21

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor** Amount **Amount** Number or Analyzed Analyst Lab Total/NA Analysis 350.1 2 mL 2 mL 384908 05/27/15 08:55 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 384267 05/21/15 19:34 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: SW-02_05212015_HIGH Lab Sample ID: 680-112797-11

Date Collected: 05/21/15 12:10 **Matrix: Water**

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	310.1 nt ID: MANTECH		1			385163	05/28/15 18:16	DAM	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	384908	05/27/15 10:19	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:38	GRX	TAL SAV

Client Sample ID: SW-01_05212015_HIGH Lab Sample ID: 680-112797-12

Matrix: Water Date Collected: 05/21/15 12:20

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	310.1 nt ID: MANTECH		1			385163	05/28/15 18:09	DAM	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384908	05/27/15 08:55	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:39	GRX	TAL SAV

Lab Sample ID: 680-112797-13 Client Sample ID: SW-03_05212015_HIGH

Date Collected: 05/21/15 13:00

Date Received: 05/21/15 16:21

Prep Type Total/NA	Batch Batch Type Method Analysis 310.1 Instrument ID: MANTEC	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 385163	Prepared or Analyzed 05/28/15 18:23	Analyst DAM	Lab TAL SAV
Total/NA	Analysis 350.1 Instrument ID: KONELA	.B1	1	2 mL	2 mL	384908	05/27/15 09:05	JME	TAL SAV
Total/NA	Analysis 353.2 Instrument ID: LACHAT	2	1	2 mL	2 mL	384267	05/21/15 19:41	GRX	TAL SAV

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Matrix: Water

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: SW-04_05212015_HIGH

Lab Sample ID: 680-112797-14

Date Collected: 05/21/15 13:10 Date Received: 05/21/15 16:21

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type Total/NA	Type Analysis Instrume	Method 310.1 nt ID: MANTECH	Run	Factor 1	Amount	Amount	Number 385163	or Analyzed 05/28/15 18:31	Analyst DAM	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384908	05/27/15 09:05	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:42	GRX	TAL SAV

Lab Sample ID: 680-112797-15 Client Sample ID: EB-02_05212015

Date Collected: 05/21/15 13:30 **Matrix: Water**

Date Received: 05/21/15 16:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	384639	05/26/15 10:40	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	384988	05/27/15 15:01	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	384908	05/27/15 09:05	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	384267	05/21/15 19:43	GRX	TAL SAV

Client Sample ID: Trip Blank Lab Sample ID: 680-112797-16 Date Collected: 05/21/15 00:00 **Matrix: Water**

Date Received: 05/21/15 16:21

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			5 mL	5 mL	384972	05/28/15 11:31	JD1	TAL SAV
	Instrumer	nt ID: CMSAC								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

TAL-6006 (0509) and actebell @ anecked com LAB USE Comments & Special Analytical Requirements: 48/3.6(x)5.3/40°C S el Cartin Project #: 6 - 4300 - 5245 Pos, 10f LAB Log Number DSWSW COMMENTS PM: Aaron (setchell 154 Fax NVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC SHIPMENT INFORMATION Shipment Tracking No: Shipment Method: uz. CC' i M X X X XXX <u>×</u> × # 000 ××× Custody Seal # De and NE YE METHODS FOR ANALYSIS × □ TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720 P: 330-497-9386 F: 330-497-9722 □ TestAmerica Tampa - 6712 Benjamn Road, Surto 100, Tampa, Ft. 35634 P: 813-885-7427 F: 813-885-7649 □ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, Ft. 32514 P 850-474-1001 F: 850-478-2671 □ TestAmerica Buffalo - 10 Hazelwood Drive, Surte 106, Amherst, NY 14228 P. 716-691-2600 F. 716-961-7991 Custody Intact Alkalihily Note =3 3630 D 3721 13800 Ezell R3 Str. 100 TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F. 708-534-5211 Company: Coster Wheeler LAB USE: Date/Time City, State, Zip. Abrille, TN Anmonda CONSULTANT INFORMATION 3 3 S 3 3 SE 33 .3 Pres. Code 3 Matrix 3 3 Code LIQ = Liquid Time Sampler Yor N Comp Type এ ঙ و J I ૭ ৩ 4 = Sodium Thiosulfate 5 = Sodium Hydroxide SOL = Other Solid Filtered 3 = Sulfuric Acid 2 7 Z Z Z Z 2 Z 1840 PG - 1x 2 SL = Sludge 26 SO = Soil 6 = Other 5/21/15 10902 30 5/21/15 OA15 X 26 0 = 0 5/21/15 0845 PG 5/21/15/1026 33 5/21/15 1240 PC Lab Remarks 5/21/15 0820 P6 B ENVOCO 20647 Proj. State (State of Ongin) LABORATORY INFORMATION Received By: Proj. City: Sample Collection 5/21/15 1132 38 Preservative Codes: 0 = No Preservatives 1 = Hydrochloric Acid SW = Surface Water WW = Waste Water GW = GroundwaterMatrix Codes: 2 = Nitric Acid 5/21/15 5/21/15 162 162 5/21/15 Date tyled to Containers Number & Med H 5W-03-05212015-LOW 4 poly 4 poly 5W-01_05212015_LOW Me: JUG H WOJ-21230-50-100 EDD Required, Format: Date/Time **6**-T T CSXT Project Name: Hexteninson Island Standard 6-13 Days CUSTODY CHAIN OF Standard 14 Days Specify # Days PDMW-26T_05212015 SW-04-05212015-Law Other Deliv: PDMW-39D_05212015 DUP-01_05212015 TMW-1-05212015 CSXT Project Number: 9415575 EB-01-05212015 FB-01-05212015 Sam Ross 580-112797 Sample Identification CSXT PROJECT INFORMATION CSXT Standard (Level II) SAMPLE INFORMATION Turnaround Time: Received By Laborato DRIGINAL - RETURN 1 Day Rush 2 Day Rush 3 Day Rush Deliverables: Relinquished By: OSXT Contact: Level III Level IV

ABORATORY INFORMATION

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc Job Number: 680-112797-1

Login Number: 112797 List Source: TestAmerica Savannah

List Number: 1

Creator: Banda, Christy S

Creator. Danda, Christy S		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-112797-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15 *

^{*} Certification renewal pending - certification considered valid.

TestAmerica Savannah



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-118925-1

TestAmerica SDG: ENV0000120647/R9415575 Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

Show Hovey

Authorized for release by: 11/20/2015 5:05:22 PM

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

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Job ID: 680-118925-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Foster Wheeler E & I, Inc
Project: CSX GA, Hutchinson Island, VRP
Report Number: 680-118925-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 11/12/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

METALS (ICP)

Samples PDMW-13P_11112015 (680-118925-1), PDMW-32R_11112015 (680-118925-3), PDMW-33R2_11112015 (680-118925-4), PDMW-47_11112015 (680-118925-6), PDMW-23R_11112015 (680-118925-7), PDMW-46_11112015 (680-118925-8) and PDMW-45R_11112015 (680-118925-9) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 11/16/2015 and analyzed on 11/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples PDMW-13P_11112015 (680-118925-1), PDMW-53_11112015 (680-118925-2), PDMW-32R_11112015 (680-118925-3), PDMW-33R2_11112015 (680-118925-4), PDMW-48_11112015 (680-118925-5), PDMW-47_11112015 (680-118925-6), PDMW-23R_11112015 (680-118925-7), PDMW-46_11112015 (680-118925-8) and PDMW-45R_11112015 (680-118925-9) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 11/19/2015 and 11/20/2015.

Samples PDMW-13P_11112015 (680-118925-1)[2X], PDMW-53_11112015 (680-118925-2)[2X], PDMW-33R2_11112015 (680-118925-4) [10X], PDMW-48_11112015 (680-118925-5)[20X], PDMW-47_11112015 (680-118925-6)[20X] and PDMW-23R_11112015 (680-118925-7) [2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples PDMW-13P_11112015 (680-118925-1), PDMW-53_11112015 (680-118925-2), PDMW-32R_11112015 (680-118925-3), PDMW-33R2_11112015 (680-118925-4), PDMW-48_11112015 (680-118925-5), PDMW-47_11112015 (680-118925-6), PDMW-23R_11112015 (680-118925-7), PDMW-46_11112015 (680-118925-8) and PDMW-45R_11112015 (680-118925-9) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 11/12/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Qualifiers

Metals

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected. IJ

General Chemistry

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity **EDL Estimated Detection Limit** MDC

Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC **Quality Control RER** Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID	Client Sample ID	Matrix	Collected Received	d
680-118925-1	PDMW-13P_11112015	Water	11/11/15 10:12 11/12/15 08	3:30
680-118925-2	PDMW-53_11112015	Water	11/11/15 09:55 11/12/15 08	3:30
680-118925-3	PDMW-32R_11112015	Water	11/11/15 11:12 11/12/15 08	3:30
680-118925-4	PDMW-33R2_11112015	Water	11/11/15 10:55 11/12/15 08	3:30
680-118925-5	PDMW-48_11112015	Water	11/11/15 16:07 11/12/15 08	3:30
680-118925-6	PDMW-47_11112015	Water	11/11/15 11:55 11/12/15 08	3:30
680-118925-7	PDMW-23R_11112015	Water	11/11/15 12:17 11/12/15 08	3:30
680-118925-8	PDMW-46_11112015	Water	11/11/15 15:10 11/12/15 08	3:30
680-118925-9	PDMW-45R_11112015	Water	11/11/15 16:00 11/12/15 08	3:30

Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-1

Matrix: Water

Client Sample ID: PDMW-13P_11112015 Date Collected: 11/11/15 10:12

Date Received: 11/12/15 08:30

Method: 6010C - Metals (ICP) Analyte	Rosult	Qualifier	RL	MDL	Unit	n	Prepared	Analyzed	Dil Fac
Arsenic	20		20		ug/L		11/16/15 09:16		1
Lead	11		10		ug/L			11/17/15 11:59	1
Nickel	40	U	40		ug/L		11/16/15 09:16	11/17/15 11:59	1
Zinc	20	U	20		ug/L		11/16/15 09:16	11/17/15 11:59	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.7		0.50		mg/L			11/20/15 09:00	2
Nitrate as N	0.050	U	0.050		mg/L			11/12/15 12:44	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/12/15 12:44	1
Nitrite as N	0.050	U	0.050		mg/L			11/12/15 12:44	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-2

Matrix: Water

Client Sample ID: PDMW-53_11112015

Date Collected: 11/11/15 09:55 Date Received: 11/12/15 08:30

General Chemistry Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3.6		0.50	mg/L			11/20/15 09:00	2
Nitrate as N	0.050	U	0.050	mg/L			11/12/15 12:48	1
Nitrate Nitrite as N	0.050	U	0.050	mg/L			11/12/15 12:48	1
Nitrite as N	0.050	U	0.050	mg/L			11/12/15 12:48	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-3

Matrix: Water

Client Sample ID: PDMW-32R_11112015

Date Collected: 11/11/15 11:12 Date Received: 11/12/15 08:30

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/16/15 09:16	11/17/15 12:02	1
Lead	10	U	10		ug/L		11/16/15 09:16	11/17/15 12:02	1
Nickel	40	U	40		ug/L		11/16/15 09:16	11/17/15 12:02	1
Zinc	120		20		ug/L		11/16/15 09:16	11/17/15 12:02	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.3		0.25		mg/L			11/20/15 08:50	1
Nitrate as N	0.17		0.050		mg/L			11/12/15 12:50	1
Nitrate Nitrite as N	0.17		0.050		mg/L			11/12/15 12:50	1
Nitrite as N	0.050	Ü	0.050		mg/L			11/12/15 12:50	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-33R2_11112015

TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-4

Matrix: Water

Date Received: 11/12/15 08:30 Mathed: 6040C Motels (ICP)

Date Collected: 11/11/15 10:55

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/16/15 09:16	11/17/15 12:18	1
Lead	10	U	10		ug/L		11/16/15 09:16	11/17/15 12:18	1
_									

						-				
	General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7	Ammonia	15		2.5		mg/L			11/20/15 09:10	10
١	Nitrate as N	0.050	U	0.050		mg/L			11/12/15 12:57	1
١	Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/12/15 12:57	1
١	Nitrite as N	0.050	U	0.050		mg/L			11/12/15 12:57	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-5

Matrix: Water

Client Sample ID: PDMW-48_11112015 Date Collected: 11/11/15 16:07

Date Received: 11/12/15 08:30

General Chemistry Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	28		5.0		mg/L			11/20/15 09:33	20
Nitrate as N	0.11		0.050		mg/L			11/12/15 12:59	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/12/15 12:59	1
Nitrite as N	0.11		0.050		mg/L			11/12/15 12:59	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-6

Matrix: Water

Client Sample ID: PDMW-47_11112015 Date Collected: 11/11/15 11:55

Date Received: 11/12/15 08:30

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/L		11/16/15 09:16	11/17/15 12:21	1
Lead	10		10	ug/L		11/16/15 09:16	11/17/15 12:21	1

General Chemistry Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	39		5.0		mg/L			11/20/15 09:10	20
Nitrate as N	0.050	U	0.050		mg/L			11/12/15 13:00	1
Nitrate Nitrite as N	0.050 U	U	0.050		mg/L			11/12/15 13:00	1
Nitrite as N	0.050	U	0.050		mg/L			11/12/15 13:00	1

TestAmerica Savannah

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-7

Matrix: Water

Client Sample ID: PDMW-23R 11112015 Date Collected: 11/11/15 12:17

Date Received: 11/12/15 08:30

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/16/15 09:16	11/17/15 12:25	1
Lead	10	U	10		ug/L		11/16/15 09:16	11/17/15 12:25	1

General Chemistry Analyte	Result	Qualifier	RL	MDL Unit	t D	Prepared	Analyzed	Dil Fac
Ammonia	2.8		0.50	mg/l			11/20/15 09:10	2
Nitrate as N	0.050	U	0.050	mg/l	L		11/12/15 13:01	1
Nitrate Nitrite as N	0.050	U	0.050	mg/l	L		11/12/15 13:01	1
Nitrite as N	0.050	U	0.050	mg/l	L		11/12/15 13:01	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-46_11112015

TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-8

Matrix: Water

Date Collected: 11/11/15 15:10 Date Received: 11/12/15 08:30

red Analyzed Dil F	Fac
09:16 11/17/15 12:29	1
09:16 11/17/15 12:29	1

General Chemistry Analyte	Result Qualific	er RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.1	0.25	mg/L			11/20/15 08:50	1
Nitrate as N	0.050 U	0.050	mg/L			11/12/15 13:02	1
Nitrate Nitrite as N	0.067	0.050	mg/L			11/12/15 13:02	1
Nitrite as N	0.073	0.050	mg/L			11/12/15 13:02	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-9

Matrix: Water

Client Sample ID: PDMW-45R_11112015 Date Collected: 11/11/15 16:00

Date Received: 11/12/15 08:30

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/16/15 09:16	11/17/15 12:33	1
Lead	10	U	10		ug/L		11/16/15 09:16	11/17/15 12:33	1
Nickel	40	U	40		ug/L		11/16/15 09:16	11/17/15 12:33	1

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.80	0.25	mg/L			11/19/15 19:34	1
Nitrate as N	0.050 U	0.050	mg/L			11/12/15 13:03	1
Nitrate Nitrite as N	0.050 U	0.050	mg/L			11/12/15 13:03	1
Nitrite as N	0.050 U	0.050	mg/L			11/12/15 13:03	1

TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-410498/1-A

Analysis Batch: 410766

Matrix: Water

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 410498 MD MD

Di	D	D	Dil	il F	Fac	C
31	_				1	ī
31					1	1
31					1	1
31					1	1
31 31 31						1

Lab Sample ID: LCS 680-410498/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 410766 Prep Batch: 410498** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Arsenic 100 94.7 ug/L 95 80 - 120 500 495 99 Lead ug/L 80 - 120 Nickel 100 98.4 ug/L 98 80 - 120 100 98.1 Zinc ug/L 98 80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-411342/29 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 411342

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Ammonia 0.25 U 0.25 mg/L 11/19/15 19:43

Lab Sample ID: LCS 680-411342/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 411342

LCS LCS Spike %Rec. **Analyte** Added Result Qualifier Unit D %Rec Limits Ammonia 1.00 1.05 105 90 - 110

Lab Sample ID: LCSD 680-411342/6 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 411342** LCSD LCSD **RPD** Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Ammonia 1.00 1.06 mg/L 106 90 - 110

Lab Sample ID: MB 680-411343/13 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 411343

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 0.25 0.25 U 11/19/15 19:43 Ammonia mg/L

2

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: PDMW-13P_11112015

Client Sample ID: PDMW-13P 11112015

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

3

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-411343/17

Matrix: Water

Analysis Batch: 411343

 Spike
 LCS
 LCS
 %Rec.

 Analyte
 Added
 Result
Lab Sample ID: LCSD 680-411343/35

Matrix: Water

Analysis Batch: 411343

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limits Analyte **RPD** Limit Unit %Rec Ammonia 1.00 1.05 mg/L 105 90 - 110 30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-410169/13

Matrix: Water

Analysis Batch: 410169

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Nitrate as N 0.050 U 0.050 11/12/15 12:39 mg/L Nitrate Nitrite as N 0.050 U 0.050 11/12/15 12:39 mg/L 0.050 U 0.050 mg/L 11/12/15 12:39 Nitrite as N

Lab Sample ID: LCS 680-410169/16

Matrix: Water

Analysis Batch: 410169

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Nitrate as N 0.500 0.496 mg/L 99 75 - 125 Nitrate Nitrite as N 1.00 0.998 mg/L 100 90 - 110 Nitrite as N 0.500 0.502 mg/L 100 90 - 110

Lab Sample ID: 680-118925-1 MS

Matrix: Water

Analysis Batch: 410169

MS MS Sample Sample Spike %Rec. Result Qualifier Analyte Result Qualifier Added Unit %Rec Limits Nitrate as N 0.050 U 0.500 0.519 mg/L 104 75 - 125 Nitrate Nitrite as N 0.050 U 1.00 1.04 mg/L 104 90 - 110 Nitrite as N 0.050 U 0.500 0.521 mg/L 104 90 - 110

Lab Sample ID: 680-118925-1 MSD

Matrix: Water

Analysis Batch: 410169

Alialysis Datell. Tivios											
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	0.050	U	0.500	0.539		mg/L		108	75 - 125	4	30
Nitrate Nitrite as N	0.050	U	1.00	1.06		mg/L		106	90 - 110	1	10
Nitrite as N	0.050	U	0.500	0.521		mg/L		104	90 - 110	0	10

TestAmerica Savannah

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-118925-2 DU Client Sample ID: PDMW-53_11112015 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 410169

_	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Nitrate as N	0.050	U	0.050	U	mg/L		 NC	30
Nitrate Nitrite as N	0.050	U	0.050	U	mg/L		NC	10
Nitrite as N	0.050	U	0.050	U	mg/L		NC	10

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Metals

Prep Batch: 410498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118925-1	PDMW-13P_11112015	Total/NA	Water	3010A	
680-118925-3	PDMW-32R_11112015	Total/NA	Water	3010A	
680-118925-4	PDMW-33R2_11112015	Total/NA	Water	3010A	
680-118925-6	PDMW-47_11112015	Total/NA	Water	3010A	
680-118925-7	PDMW-23R_11112015	Total/NA	Water	3010A	
680-118925-8	PDMW-46_11112015	Total/NA	Water	3010A	
680-118925-9	PDMW-45R_11112015	Total/NA	Water	3010A	
LCS 680-410498/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-410498/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 410766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118925-1	PDMW-13P_11112015	Total/NA	Water	6010C	410498
680-118925-3	PDMW-32R_11112015	Total/NA	Water	6010C	410498
680-118925-4	PDMW-33R2_11112015	Total/NA	Water	6010C	410498
680-118925-6	PDMW-47_11112015	Total/NA	Water	6010C	410498
680-118925-7	PDMW-23R_11112015	Total/NA	Water	6010C	410498
680-118925-8	PDMW-46_11112015	Total/NA	Water	6010C	410498
680-118925-9	PDMW-45R_11112015	Total/NA	Water	6010C	410498
LCS 680-410498/2-A	Lab Control Sample	Total/NA	Water	6010C	410498
MB 680-410498/1-A	Method Blank	Total/NA	Water	6010C	410498

General Chemistry

Analysis Batch: 410169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118925-1	PDMW-13P_11112015	Total/NA	Water	353.2	_
680-118925-1 MS	PDMW-13P_11112015	Total/NA	Water	353.2	
680-118925-1 MSD	PDMW-13P_11112015	Total/NA	Water	353.2	
680-118925-2	PDMW-53_11112015	Total/NA	Water	353.2	
680-118925-2 DU	PDMW-53_11112015	Total/NA	Water	353.2	
680-118925-3	PDMW-32R_11112015	Total/NA	Water	353.2	
880-118925-4	PDMW-33R2_11112015	Total/NA	Water	353.2	
880-118925-5	PDMW-48_11112015	Total/NA	Water	353.2	
880-118925-6	PDMW-47_11112015	Total/NA	Water	353.2	
680-118925-7	PDMW-23R_11112015	Total/NA	Water	353.2	
880-118925-8	PDMW-46_11112015	Total/NA	Water	353.2	
880-118925-9	PDMW-45R_11112015	Total/NA	Water	353.2	
CS 680-410169/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-410169/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 411342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118925-1	PDMW-13P_11112015	Total/NA	Water	350.1	
680-118925-2	PDMW-53_11112015	Total/NA	Water	350.1	
680-118925-3	PDMW-32R_11112015	Total/NA	Water	350.1	
680-118925-4	PDMW-33R2_11112015	Total/NA	Water	350.1	
680-118925-5	PDMW-48_11112015	Total/NA	Water	350.1	
680-118925-6	PDMW-47_11112015	Total/NA	Water	350.1	
LCS 680-411342/4	Lab Control Sample	Total/NA	Water	350.1	

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11/20/2015

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

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General Chemistry (Continued)

Analysis Batch: 411342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-411342/6	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-411342/29	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 411343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118925-7	PDMW-23R_11112015	Total/NA	Water	350.1	
680-118925-8	PDMW-46_11112015	Total/NA	Water	350.1	
680-118925-9	PDMW-45R_11112015	Total/NA	Water	350.1	
LCS 680-411343/17	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-411343/35	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-411343/13	Method Blank	Total/NA	Water	350.1	

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Client Sample ID: PDMW-13P_11112015

Date Collected: 11/11/15 10:12 Date Received: 11/12/15 08:30

Lab Sample ID: 680-118925-1

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 11:59	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	411342	11/20/15 09:00	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 12:44	GRX	TAL SAV

Lab Sample ID: 680-118925-2 **Client Sample ID: PDMW-53_11112015**

Date Collected: 11/11/15 09:55 Date Received: 11/12/15 08:30

Matrix: Water

Matrix: Water

Prep Type Total/NA	Batch Type Analysis Instrumer	Batch Method 350.1 nt ID: KONELAB1	Run	Factor 2	Initial Amount 2 mL	Final Amount 2 mL	Batch Number 411342	Prepared or Analyzed 11/20/15 09:00	Analyst JME	Lab TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 12:48	GRX	TAL SAV

Client Sample ID: PDMW-32R_11112015 Lab Sample ID: 680-118925-3

Date Collected: 11/11/15 11:12

Date Received: 11/12/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 12:02	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411342	11/20/15 08:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 12:50	GRX	TAL SAV

Client Sample ID: PDMW-33R2_11112015

Date Collected: 11/11/15 10:55 Date Received: 11/12/15 08:30

Lab Sample I	D: 680-118925-4	
	Matrix: Water	

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrumer	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 12:18	ВСВ	TAL SAV
Total/NA	Analysis Instrumer	350.1 nt ID: KONELAB1		10	2 mL	2 mL	411342	11/20/15 09:10	JME	TAL SAV
Total/NA	Analysis Instrumer	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 12:57	GRX	TAL SAV

TestAmerica Savannah

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-6

Lab Sample ID: 680-118925-7

Lab Sample ID: 680-118925-5

Matrix: Water

Matrix: Water

Matrix: Water

Client Sample ID: PDMW-48 11112015

Instrument ID: LACHAT2

Date Collected: 11/11/15 16:07 Date Received: 11/12/15 08:30

Batch Dil Initial Batch Batch Final Prepared Method **Prep Type** Type Run **Factor** Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 350.1 20 2 mL 2 mL 411342 11/20/15 09:33 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 410169 11/12/15 12:59 GRX TAL SAV

Client Sample ID: PDMW-47_11112015

Date Collected: 11/11/15 11:55 Date Received: 11/12/15 08:30

Initial Batch Batch Dil Final Batch Prepared Method Amount Amount Number or Analyzed Prep Type Type Run Factor **Analyst** Lab Total/NA Prep 3010A 50 ml 50 ml 410498 11/16/15 09:16 CRW TAL SAV Total/NA Analysis 6010C 50 mL 50 mL 410766 11/17/15 12:21 BCB TAL SAV Instrument ID: ICPE Total/NA Analysis 350.1 20 2 mL 411342 11/20/15 09:10 JME TAL SAV 2 mL Instrument ID: KONELAB1 Total/NA 2 mL 410169 Analysis 353.2 1 2 mL 11/12/15 13:00 GRX TAL SAV

Client Sample ID: PDMW-23R_11112015

Instrument ID: LACHAT2

Date Collected: 11/11/15 12:17 Date Received: 11/12/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 12:25	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		2	2 mL	2 mL	411343	11/20/15 09:10	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 13:01	GRX	TAL SAV

Client Sample ID: PDMW-46_11112015

Lab Sample ID: 680-118925-8 Date Collected: 11/11/15 15:10 **Matrix: Water** Date Received: 11/12/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 12:29	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411343	11/20/15 08:50	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 13:02	GRX	TAL SAV

TestAmerica Savannah

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Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-45R_11112015

TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118925-9

Metrice Metrice Meter

Matrix: Water

Date Collected: 11/11/15 16:00 Date Received: 11/12/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	-		50 mL	50 mL	410498	11/16/15 09:16	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410766	11/17/15 12:33	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411343	11/19/15 19:34	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410169	11/12/15 13:03	GRX	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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	·	LABORAIORY	RY INFORMATION	_						٦	# 000	-	
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CSXT Contact: Sam Ross		LWON: TR	80	Ş	.1	Tampa	8	١.	33602		Phone (813)	445-1826 (454) 384-545	好%6.54
Turnaround Time:	3 Days	Preservative Co	re Codes: 3 = 3	= Sulfuric Acid	cid	Note	1	_				COMMENTS	LAB USE
7	/s	0 = No Preservatives		Sodium T	4 = Sodium Thiosulfate			MET	METHODS FOR ANALYSIS	R ANA	YSIS		
2 Day Rush Standard 14 Days 3 Day Rush Other	Days	1 = Hydrochlonc Acid 2 = Nitric Acid		5 = Sodium F 6 = Other	5 = Sødium Hydroxide 6 = Other	Code	(i)	-3-4					
Deliverables:		Matrix Codes:		SO = Soil]	LIQ = Liquid	T-	<u>j.v.</u> j					
tandard (Level II)		GW = Groundwater		SL = Studge			*6	!N					
☐ Level III	d, Format:	WW = Waste Water SW = Surface Water	_	OI = Oil SOL = Other Solid	Solid		જો (क	9				
SAMPLE INFORMATION				ļ) T		ج س	3	7)		
	Containers	Sample	Sample Collection	Filt	Filtered Ty	Type Matrix		10)	20°	77	יטי		
Sample Identification	Number & Type	Date	Time Sam	Sampler Y	Y or N Or C	Comp Code or Grab	7	H!N	27 27	''N	2	- 11	
PDMW-13P_11112015	J	11/11/2015 1013	1012 33		7	M9 9	X	X	X	X	×	680	
PDMW-53-11112015	W	11/11/2015	2015 0955 PG		9 Z		×	×				D-118	
PDMW-32R-11112015	ħ	11/11/2015/11/12	112 CI		Z	3 2	×	X	×	X	X	925 (
PDMW-33R2-11112015	す	11/11/2015 1055	1055 PG		Z	C GW	X	X	\times			Chain	
PDMW-48_11112015	3	11/11/2015/1607	16075	と	5	20	X	X				of Co	
PDMW-47-11112015	5	11/11/2015 1155	1155 PG	N	2	M9 .	X	X	X			ustod	
PDMW-23R_11112015	4	11/11/2015	रिक्ष में प्रश	マカ	<u>ق</u>	S	X	X	X			y	
PDMW-46-11112015	ナ	2102 12/11	151510 PG	Z	<u>৩</u>	ما ،	X	$\hat{\times}$	X				
PDMW-45R_11112015	ז	11 11 2015 1600	-+	Pla	フ	<u>ო</u>	X	$\frac{\lambda}{2}$	X	X			
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Received By Laboratory:	Date/fine. / C	8:30	Lab Remarks:	(,)	1/2/	7	LAB USE:	1	Custody Intact		Custody Seal #	LAB Lag Number	o mber
ORIGINAL - RETURN TO LABORATORY WITH SAMPLES	SES.						INVOIC	E MUST	BE SUBM	TTED TO	CSXT WITH	INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC	TAL-6006 (0509

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 680-118925-1

SDG Number: ENV0000120647/R9415575

List Source: TestAmerica Savannah

Login Number: 118925

List Number: 1

Creator: White, Menica R

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118925-1 SDG: ENV0000120647/R9415575

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-16

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-118974-1

TestAmerica SDG: ENV0000120647/R9415575 Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 2677 Buford Highway Atlanta, Georgia 30324

Attn: Aaron Getchell

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Authorized for release by: 11/30/2015 4:56:08 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Job ID: 680-118974-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Foster Wheeler E & I, Inc
Project: CSX GA, Hutchinson Island, VRP
Report Number: 680-118974-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 11/13/2015 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.8° C, 1.2° C and 1.2° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TMW-1_11122015 (680-118974-9), DUP-02_11122015 (680-118974-10), EBJ_11122015 (680-118974-12), FB_11122015 (680-118974-13) and TB_11122015 (680-118974-14) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/17/2015.

Method(s) 8260B: The following sample were collected in properly preserved vials for analysis of volatile organic compounds (VOCs), however, the pH was >2 when verified by the laboratory: TMW-1_11122015 (680-118974-9), TMW-1_11122015 (680-118974-9[MS]), TMW-1_11122015 (680-118974-9[MSD]) and DUP-02_11122015 (680-118974-10).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples TMW-1_11122015 (680-118974-9), DUP-02_11122015 (680-118974-10), EBJ_11122015 (680-118974-12) and FB_11122015 (680-118974-13) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/17/2015 and 11/24/2015 and analyzed on 11/20/2015, 11/26/2015 and 11/27/2015.

Method(s) 8270D: Surrogate recovery for the following sample was outside control limits: TMW-1_11122015 (680-118974-9). Re-extraction and/or re-analysis was performed with concurring results. The re-extraction was out of hold time. Both sets of data have been reported. The confirmation sample is qualified with an "H" flag.

Several analytes have recovery outside criteria low for the MS and/or MSD of sample TMW-1_11122015 (680-118974-9) in batch 680-411357. Indeno[1,2,3-cd]pyrene exceeded the RPD limit. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICP)

Samples EW-1_11122015 (680-118974-1), PDMW-19P_11122015 (680-118974-2), PDMW-10R_11122015 (680-118974-3), TMW-4R_11122015 (680-118974-4), PDMW-26T_11122015 (680-118974-5), PDMW-8R_11122015 (680-118974-6), DUP-01_11122015 (680-118974-7), MW-3R_11122015 (680-118974-8), TMW-1_11122015 (680-118974-9), DUP-02_11122015 (680-118974-10), EBP_11122015 (680-118974-11), EBJ_11122015 (680-118974-12) and FB_11122015 (680-118974-13) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 11/17/2015 and 11/18/2015 and analyzed on 11/18/2015 and 11/19/2015.

Method(s) 3010A: The following samples were received unpreserved and were preserved upon receipt to the laboratory: PDMW-26T_11122015 (680-118974-5), DUP-01_11122015 (680-118974-7), TMW-1_11122015 (680-118974-9) and DUP-02_11122015 (680-118974-10). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

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Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Job ID: 680-118974-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples EW-1_11122015 (680-118974-1), PDMW-19P_11122015 (680-118974-2), PDMW-10R_11122015 (680-118974-3), TMW-4R_11122015 (680-118974-4), PDMW-26T_11122015 (680-118974-5), PDMW-8R_11122015 (680-118974-6), DUP-01_11122015 (680-118974-7), MW-3R_11122015 (680-118974-8), TMW-1_11122015 (680-118974-9), DUP-02_11122015 (680-118974-10), EBP_11122015 (680-118974-11), EBJ_11122015 (680-118974-12) and FB_11122015 (680-118974-13) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 11/19/2015 and 11/20/2015.

Method(s) 350.1: The reference method requires samples to be preserved to a pH of <2. The following samples were received at a pH of 6: TMW-1_11122015 (680-118974-9) and DUP-02_11122015 (680-118974-10). The samples were preserved to the appropriate pH in the laboratory.

Ammonia recovery is outside criteria low for the MS and outside criteria high for the MSD of sample TMW-1_11122015 (680-118974-9) in batch 680-411340. Refer to the QC report for details.

Samples EW-1_11122015 (680-118974-1)[200X], PDMW-19P_11122015 (680-118974-2)[5X], PDMW-10R_11122015 (680-118974-3) [5X], TMW-4R_11122015 (680-118974-4)[2X], PDMW-26T_11122015 (680-118974-5)[400X], PDMW-8R_11122015 (680-118974-6)[50X], DUP-01_11122015 (680-118974-7)[400X], TMW-1_11122015 (680-118974-9)[5000X] and DUP-02_11122015 (680-118974-10)[5000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN

Samples EW-1_11122015 (680-118974-1), PDMW-19P_11122015 (680-118974-2), PDMW-10R_11122015 (680-118974-3), TMW-4R_11122015 (680-118974-4), PDMW-26T_11122015 (680-118974-5), PDMW-8R_11122015 (680-118974-6), DUP-01_11122015 (680-118974-7), MW-3R_11122015 (680-118974-8), TMW-1_11122015 (680-118974-9), DUP-02_11122015 (680-118974-10), EBP_11122015 (680-118974-11), EBJ_11122015 (680-118974-12) and FB_11122015 (680-118974-13) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 11/13/2015.

Method(s) 353.2: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with AD410397 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of nitrate plus nitrite in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Nitrate as N and Nitrate Nitrite as N failed the recovery criteria low for the MS and/or MSD of sample TMW-1_11122015 (680-118974-9) in batch 680-410397. Refer to the QC report for details.

Samples TMW-1_11122015 (680-118974-9)[200X] and DUP-02_11122015 (680-118974-10)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Qualifiers

GC/MS VOA

Indicates the analyte was analyzed for but not detected.

Indicates the analyte was analyzed for but not detected.

These commonly used abbreviations may or may not be present in this report.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
Χ	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
Н	Sample was prepped or analyzed beyond the specified holding time
*	ISTD response or retention time outside acceptable limits
Metals	
Qualifier	Qualifier Description

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary Abbreviation

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Matrix

Water

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID

EW-1_11122015

PDMW-19P_11122015

PDMW-10R_11122015

PDMW-26T_11122015

PDMW-8R_11122015

DUP-01_11122015

MW-3R_11122015

TMW-1 11122015

DUP-02_11122015

EBP_11122015

EBJ_11122015

FB_11122015

TB_11122015

TMW-4R_11122015

Lab Sample ID

680-118974-1

680-118974-2

680-118974-3

680-118974-4

680-118974-5

680-118974-6

680-118974-7

680-118974-8

680-118974-9

680-118974-10

680-118974-11

680-118974-12

680-118974-13

680-118974-14

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

	17113413373	_14 0 0 0 0 1 2 0 0 -
	Received	Collected
	11/13/15 08:30	11/12/15 09:58
	11/13/15 08:30	11/12/15 09:30
,	11/13/15 08:30	11/12/15 10:48
	11/13/15 08:30	11/12/15 10:30

11/12/15 13:55 11/13/15 08:30

11/12/15 13:00 11/13/15 08:30

11/12/15 00:00 11/13/15 08:30

11/12/15 00:00 11/13/15 08:30

11/12/15 15:13 11/13/15 08:30

11/12/15 00:00 11/13/15 08:30

11/12/15 15:15 11/13/15 08:30

11/12/15 16:35 11/13/15 08:30

11/12/15 15:35 11/13/15 08:30

11/12/15 00:00 11/13/15 08:30

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Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: EW-1_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-1

Matrix: Water

Date Collected: 11/12/15 09:58
Date Received: 11/13/15 08:30

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L	— –	11/17/15 10:31	11/18/15 04:24	1
Chromium	10	U	10		ug/L		11/17/15 10:31	11/18/15 04:24	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 04:24	1
Nickel	60		40		ug/L		11/17/15 10:31	11/18/15 04:24	1
Zinc	170		20		ug/L		11/17/15 10:31	11/18/15 04:24	1

General Chemistry	Posult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	270	Qualifier	50	WIDE	mg/L		riepaieu	11/19/15 18:47	200
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 15:43	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 15:43	1
Nitrite as N	0.050	U	0.050		mg/L			11/13/15 15:43	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-2

Matrix: Water

Client Sample ID: PDMW-19P_11122015 Date Collected: 11/12/15 09:30

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 04:28	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 04:28	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 04:28	1

General Chemistry Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	4.9		1.3		mg/L			11/19/15 17:34	5
Nitrate as N	0.050 U	(0.050		mg/L			11/13/15 15:50	1
Nitrate Nitrite as N	0.050 U	(0.050		mg/L			11/13/15 15:50	1
Nitrite as N	0.050 U	(0.050		mg/L			11/13/15 15:50	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-3

Matrix: Water

Client Sample ID: PDMW-10R 11122015 Date Collected: 11/12/15 10:48

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 04:33	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 04:33	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 04:33	1
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General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	7.9		1.3		mg/L			11/19/15 16:58	5
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:52	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:52	1
Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:52	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-4

ab Sample ID. 660-116974-4

Matrix: Water

Client Sample ID: TMW-4R_11122015 Date Collected: 11/12/15 10:30

Date Received: 11/13/15 08:30

Method: 6010C - Metals (ICP)								
Analyte	Result	Qualifier	RL	MDL Uni	t D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	ug/		11/17/15 10:31	11/18/15 04:37	1
Lead	10	U	10	ug/	_	11/17/15 10:31	11/18/15 04:37	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3.1		0.50		mg/L			11/19/15 17:34	2
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:53	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:53	1
Nitrite as N	0.050	Ü	0.050		mg/L			11/13/15 16:53	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-5

Matrix: Water

Client Sample ID: PDMW-26T 11122015 Date Collected: 11/12/15 13:55

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/18/15 10:36	11/19/15 14:51	1
Lead	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:51	1
-									

General Chemistry Analyte	Result Q	ualifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	600	100	mg/L			11/20/15 09:10	400
Nitrate as N	0.050 U	0.050	mg/L			11/13/15 15:56	1
Nitrate Nitrite as N	0.050 U	0.050	mg/L			11/13/15 15:56	1
Nitrite as N	0.050 U	0.050	mg/L			11/13/15 15:56	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-6

Matrix: Water

Client Sample ID: PDMW-8R_11122015 Date Collected: 11/12/15 13:00

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 04:42	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 04:42	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 04:42	1
-									

General Chemistry Analyte	Result	Qualifier	alifier RL		MDL Unit		Prepared	Analyzed	Dil Fac
Ammonia	60		13		mg/L			11/19/15 18:02	50
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:50	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:50	1
Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:50	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-7

Matrix: Water

Client Sample ID: DUP-01_11122015 Date Collected: 11/12/15 00:00

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/18/15 10:36	11/19/15 14:55	1
Lead	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:55	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	600		100		mg/L			11/20/15 09:10	400
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:01	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:01	1
Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:01	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: MW-3R_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-8

Matrix: Water

Date Collected: 11/12/15 00:00 Date Received: 11/13/15 08:30

Method: 6010C - Metals Analyte	S (ICP) Result Qualifie	er RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20 U	20	ug/L		11/17/15 10:31	11/18/15 04:55	1
Lead	10	10	ug/L		11/17/15 10:31	11/18/15 04:55	1
Nickel	40 U	40	ug/L		11/17/15 10:31	11/18/15 04:55	1
Zinc	35	20	ug/L		11/17/15 10:31	11/18/15 04:55	1

Zinc	35	20	ug/L		11/17/15 10:31	11/18/15 04:55	1
General Chemistry							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.7	0.25	mg/L			11/19/15 17:20	1
Nitrate as N	0.056	0.050	mg/L			11/13/15 16:02	1
Nitrate Nitrite as N	0.054	0.050	mg/L			11/13/15 16:02	1
Nitrite as N	0.11	0.050	mg/L			11/13/15 16:02	1

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: TMW-1_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-9

Matrix: Water

Date Collected: 11/12/15 15:13
Date Received: 11/13/15 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	52		1.0		ug/L			11/17/15 13:20	1
Ethylbenzene	1.0	U	1.0		ug/L			11/17/15 13:20	1
Toluene	1.0	U	1.0		ug/L			11/17/15 13:20	1
Xylenes, Total	220		1.0		ug/L			11/17/15 13:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130					11/17/15 13:20	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					11/17/15 13:20	1
Dibromofluoromethane (Surr)	95		70 - 130					11/17/15 13:20	1
4-Bromofluorobenzene (Surr)	96		70 - 130					11/17/15 13:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Acenaphthylene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Anthracene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Benzo[a]anthracene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Benzo[a]pyrene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Benzo[b]fluoranthene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Benzo[g,h,i]perylene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Benzo[k]fluoranthene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Chrysene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Dibenz(a,h)anthracene	9.5	U F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Fluoranthene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Fluorene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Indeno[1,2,3-cd]pyrene	9.5	U F2 F1	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
1-Methylnaphthalene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
2-Methylnaphthalene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Naphthalene	32		9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Phenanthrene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Pyrene	9.5	U	9.5		ug/L		11/17/15 15:53	11/20/15 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	28	X	32 - 114				11/17/15 15:53	11/20/15 21:00	1
Nitrobenzene-d5 (Surr)	28	X	30 - 117				11/17/15 15:53	11/20/15 21:00	1
Terphenyl-d14 (Surr)	34		10 - 132				11/17/15 15:53	11/20/15 21:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Acenaphthylene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Anthracene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Benzo[a]anthracene	9.6	UН	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Benzo[a]pyrene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Benzo[b]fluoranthene	9.6	U H F1	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Benzo[g,h,i]perylene	9.6	UН	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Benzo[k]fluoranthene	9.6	U H F1	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Chrysene	9.6	U H F1	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Dibenz(a,h)anthracene	9.6	UHF1	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Fluoranthene	9.6	U H	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: TMW-1_11122015 Lab Sample ID: 680-118974-9

Matrix: Water

Date Collected: 11/12/15 15:13 Date Received: 11/13/15 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Indeno[1,2,3-cd]pyrene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
1-Methylnaphthalene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
2-Methylnaphthalene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Naphthalene	26	H F1	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Phenanthrene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Pyrene	9.6	UH	9.6		ug/L		11/24/15 15:42	11/27/15 19:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	17	X	32 - 114				11/24/15 15:42	11/27/15 19:28	1
Nitrobenzene-d5 (Surr)	20	X	30 - 117				11/24/15 15:42	11/27/15 19:28	1
Terphenyl-d14 (Surr)	10		10 - 132				11/24/15 15:42	11/27/15 19:28	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	150		20		ug/L		11/18/15 10:36	11/19/15 14:40	1
Chromium	29		10		ug/L		11/18/15 10:36	11/19/15 14:40	1
Lead	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:40	1
Nickel	40	U	40		ug/L		11/18/15 10:36	11/19/15 14:40	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3600	F1	1300		mg/L			11/20/15 09:25	5000
Nitrate as N	250	F1	10		mg/L			11/13/15 15:37	200
Nitrate Nitrite as N	250	F1	10		mg/L			11/13/15 15:37	200
Nitrite as N	10	Ü	10		mg/L			11/13/15 15:37	200

11/30/2015

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: DUP-02_11122015

Date Collected: 11/12/15 00:00

Date Received: 11/13/15 08:30

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	51		1.0		ug/L			11/17/15 15:27	1
Ethylbenzene	1.0	U	1.0		ug/L			11/17/15 15:27	1
Toluene	1.0	U	1.0		ug/L			11/17/15 15:27	1
Xylenes, Total	220		1.0		ug/L			11/17/15 15:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		70 - 130			-		11/17/15 15:27	
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					11/17/15 15:27	1
Dibromofluoromethane (Surr)	92		70 - 130					11/17/15 15:27	1
4-Bromofluorobenzene (Surr)	95		70 - 130					11/17/15 15:27	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Acenaphthylene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Anthracene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Benzo[a]anthracene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Benzo[a]pyrene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Benzo[b]fluoranthene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Benzo[g,h,i]perylene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Benzo[k]fluoranthene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Chrysene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Dibenz(a,h)anthracene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Fluoranthene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Fluorene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
1-Methylnaphthalene	11		9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
2-Methylnaphthalene	13		9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Naphthalene	63		9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Phenanthrene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Pyrene	9.7	U	9.7		ug/L		11/17/15 15:53	11/20/15 21:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	48		32 - 114				11/17/15 15:53	11/20/15 21:25	1
Nitrobenzene-d5 (Surr)	57		30 - 117				11/17/15 15:53	11/20/15 21:25	1
Terphenyl-d14 (Surr)	35		10 - 132				11/17/15 15:53	11/20/15 21:25	1

Method: 6010C - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	120		20		ug/L		11/18/15 10:36	11/19/15 14:58	1
Chromium	23		10		ug/L		11/18/15 10:36	11/19/15 14:58	1
Lead	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:58	1
Nickel	40	Ü	40		ug/L		11/18/15 10:36	11/19/15 14:58	1
Zinc	63		20		ug/L		11/18/15 10:36	11/19/15 14:58	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	3400		1300		mg/L			11/20/15 09:25	5000
Nitrate as N	230		10		mg/L			11/13/15 15:41	200
Nitrate Nitrite as N	230		10		mg/L			11/13/15 15:41	200

TestAmerica Savannah

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: DUP-02_11122015

Lab Sample ID: 680-118974-10

Matrix: Water

Date Collected: 11/12/15 00:00 Date Received: 11/13/15 08:30

General Chemistry (Continued	d)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	10	U	10		mg/L			11/13/15 15:41	200

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: EBP_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-11

Matrix: Water

11/13/15 16:03

11/13/15 16:03

11/13/15 16:03

Date Collected: 11/12/15 15:15 Date Received: 11/13/15 08:30

Nitrate as N

Nitrite as N

Nitrate Nitrite as N

Method: 6010C - Metals (ICF Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic		U -	20		ug/L		11/17/15 10:31	11/18/15 05:00	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 05:00	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 05:00	1
Zinc _	20	Ü	20		ug/L		11/17/15 10:31	11/18/15 05:00	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U -	0.25		mg/L			11/19/15 16:38	1

0.050

0.050

0.050

0.16

0.16

0.050 U

mg/L

mg/L

mg/L

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: EBJ_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-12

. Matrix: Water

Date Collected: 11/12/15 16:35 Date Received: 11/13/15 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/17/15 11:35	1
Ethylbenzene	1.0	U	1.0		ug/L			11/17/15 11:35	1
Toluene	1.0	U	1.0		ug/L			11/17/15 11:35	1
Xylenes, Total	1.0	U	1.0		ug/L			11/17/15 11:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130					11/17/15 11:35	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					11/17/15 11:35	1
Dibromofluoromethane (Surr)	95		70 - 130					11/17/15 11:35	1
4-Bromofluorobenzene (Surr)	94		70 - 130					11/17/15 11:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Acenaphthylene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Chrysene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Fluorene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Naphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Phenanthrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/20/15 21:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	43		32 - 114				11/17/15 15:53	11/20/15 21:50	1
Nitrobenzene-d5 (Surr)	48		30 - 117				11/17/15 15:53	11/20/15 21:50	1
Terphenyl-d14 (Surr)	56		10 - 132				11/17/15 15:53	11/20/15 21:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 05:04	1
Chromium	10	U	10		ug/L		11/17/15 10:31	11/18/15 05:04	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 05:04	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 05:04	1
Zinc	20	U	20		ug/L		11/17/15 10:31	11/18/15 05:04	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U	0.25		mg/L			11/19/15 16:38	1
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:05	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:05	1

TestAmerica Savannah

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: EBJ_11122015

Lab Sample ID: 680-118974-12

Matrix: Water

Date Collected: 11/12/15 16:35 Date Received: 11/13/15 08:30

General Chemistry	(Continued)
Analyta	

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.050 U	0.050	mg/L			11/13/15 16:05	

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-13

Matrix: Water

Date Collected: 11/12/15 15:35
Date Received: 11/13/15 08:30

Client Sample ID: FB_11122015

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			11/17/15 11:56	1
Ethylbenzene	1.0	U	1.0		ug/L			11/17/15 11:56	1
Toluene	1.0	U	1.0		ug/L			11/17/15 11:56	1
Xylenes, Total	1.0	U	1.0		ug/L			11/17/15 11:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130			-		11/17/15 11:56	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					11/17/15 11:56	1
Dibromofluoromethane (Surr)	96		70 - 130					11/17/15 11:56	1
4-Bromofluorobenzene (Surr)	94		70 - 130					11/17/15 11:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	9.6	Ū	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Acenaphthylene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Benzo[a]anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Benzo[a]pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Benzo[b]fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Benzo[g,h,i]perylene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Benzo[k]fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Chrysene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Dibenz(a,h)anthracene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Fluoranthene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Fluorene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Indeno[1,2,3-cd]pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
1-Methylnaphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
2-Methylnaphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Naphthalene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Phenanthrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Pyrene	9.6	U	9.6		ug/L		11/17/15 15:53	11/26/15 02:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	101		32 - 114				11/17/15 15:53	11/26/15 02:09	1
Nitrobenzene-d5 (Surr)	94		30 - 117				11/17/15 15:53	11/26/15 02:09	1
Terphenyl-d14 (Surr)	114		10 - 132				11/17/15 15:53	11/26/15 02:09	1

Method: 6010C - Metals (•	0 110				_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 05:09	1
Chromium	10	U	10		ug/L		11/17/15 10:31	11/18/15 05:09	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 05:09	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 05:09	1
Zinc	20	U	20		ug/L		11/17/15 10:31	11/18/15 05:09	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U	0.25		mg/L			11/19/15 16:38	1
Nitrate as N	0.050	U	0.050		mg/L			11/13/15 16:06	1
Nitrate Nitrite as N	0.050	U	0.050		mg/L			11/13/15 16:06	1

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: FB_11122015

Lab Sample ID: 680-118974-13

Matrix: Water

Date Collected: 11/12/15 15:35 Date Received: 11/13/15 08:30

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.050 U	0.050	mg/L			11/13/15 16:06	

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-14

Matrix: Water

Client Sample ID: TB_11122015

Date Collected: 11/12/15 00:00 Date Received: 11/13/15 08:30

Method: 8260B - Volatile O	rganic Compo	unds (GC/	MS)					
Analyte	•	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	ug/L			11/17/15 12:17	1
Ethylbenzene	1.0	U	1.0	ug/L			11/17/15 12:17	1
Toluene	1.0	U	1.0	ug/L			11/17/15 12:17	1
Xylenes, Total	1.0	U	1.0	ug/L			11/17/15 12:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		70 - 130				11/17/15 12:17	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				11/17/15 12:17	1
Dibromofluoromethane (Surr)	96		70 - 130				11/17/15 12:17	1
4-Bromofluorobenzene (Surr)	93		70 - 130				11/17/15 12:17	1

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8260B - Volatile Organic Compounds (GC/MS)

MB MB

1.0 U

1.0 U

1.0 U

1.0 U

Result Qualifier

Lab Sample ID: MB 680-410671/11

Matrix: Water

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 410671

Client Sample ID: Method Blank Prep Type: Total/NA

11/17/15 11:14

11/17/15 11:14

11/17/15 11:14

MDL Unit D Prepared Analyzed Dil Fac 11/17/15 11:14 ug/L

MB MB Surrogate Qualifier Limits Dil Fac %Recovery Prepared Analyzed 70 - 130 11/17/15 11:14 Toluene-d8 (Surr) 94 96 70 - 130 1,2-Dichloroethane-d4 (Surr) 11/17/15 11:14 Dibromofluoromethane (Surr) 98 70 - 130 11/17/15 11:14 4-Bromofluorobenzene (Surr) 94 70 - 130 11/17/15 11:14

RL

1.0

1.0

1.0

1.0

ug/L

ug/L

ug/L

Lab Sample ID: LCS 680-410671/5

Matrix: Water

Analysis Batch: 410671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	50.0	48.2		ug/L		96	73 - 131	
Ethylbenzene	50.0	48.0		ug/L		96	80 - 120	
Toluene	50.0	48.8		ug/L		98	80 - 122	
Xylenes, Total	100	96.7		ug/L		97	80 - 120	

LCS LCS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 70 - 130 94 1,2-Dichloroethane-d4 (Surr) 98 70 - 130 Dibromofluoromethane (Surr) 98 70 - 130 70 - 130 4-Bromofluorobenzene (Surr) 98

Lab Sample ID: LCSD 680-410671/6

Matrix: Water

Analysis Batch: 410671

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD LCSD			%Rec.		RPD
Analyte	Added	Result Qualifier	Unit	D %Rec	Limits	RPD	Limit
Benzene	50.0	48.5	ug/L	97	73 - 131	1	30
Ethylbenzene	50.0	48.2	ug/L	96	80 - 120	0	20
Toluene	50.0	48.5	ug/L	97	80 - 122	1	20
Xylenes, Total	100	97.8	ug/L	98	80 - 120	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	93		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-118974-9 MS

Client: AMEC Foster Wheeler E & I, Inc

Project/Site: CSX GA, Hutchinson Island, VRP

Matrix: Water

Analysis Batch: 410671

Client Sample ID: TMW-1_11122015 **Prep Type: Total/NA**

%Rec

Sample	Sample	Spike	MS	MS				%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
52		50.0	104		ug/L		104	73 - 131	
1.0	U	50.0	50.2		ug/L		100	80 - 120	
1.0	U	50.0	49.9		ug/L		99	80 - 122	
220		100	316		ug/L		101	80 - 120	
	Result 52 1.0 1.0	1.0 U 1.0 U	Result Qualifier Added 52 50.0 1.0 U 50.0 1.0 U 50.0	Result Qualifier Added Result 52 50.0 104 1.0 U 50.0 50.2 1.0 U 50.0 49.9	Result Qualifier Added Result Qualifier 52 50.0 104 1.0 U 50.0 50.2 1.0 U 50.0 49.9	Result Qualifier Added Result Qualifier Unit 52 50.0 104 ug/L 1.0 U 50.0 50.2 ug/L 1.0 U 50.0 49.9 ug/L	Result Qualifier Added Result Qualifier Unit D 52 50.0 104 ug/L ug/L 1.0 U 50.0 50.2 ug/L 1.0 U 50.0 49.9 ug/L	Result Qualifier Added Result Qualifier Unit D %Rec 52 50.0 104 ug/L 104 1.0 U 50.0 50.2 ug/L 100 1.0 U 50.0 49.9 ug/L 99	Result Qualifier Added Result Qualifier Unit D %Rec Limits 52 50.0 104 ug/L 104 73 - 131 1.0 U 50.0 50.2 ug/L 100 80 - 120 1.0 U 50.0 49.9 ug/L 99 80 - 122

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 680-118974-9 MSD

Matrix: Water

Analysis Batch: 410671

Client Sample ID: TMW-1_11122015 **Prep Type: Total/NA**

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	52		50.0	103		ug/L		102	73 - 131	1	30
Ethylbenzene	1.0	U	50.0	49.3		ug/L		98	80 - 120	2	20
Toluene	1.0	U	50.0	49.5		ug/L		98	80 - 122	1	20
Xylenes, Total	220		100	311		ug/L		96	80 - 120	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-410700/7-A

Matrix: Water

Analysis Batch: 411357

Client Sample ID: Method Blank Prep Type: Total/NA **Prep Batch: 410700**

MB	MB						•	
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
	Result 10 10 10 10 10 10 10 10 10 10 10 10 10	MB MB Result Qualifier 10 U 10	Result Qualifier RL 10 U 10 10 U 10	Result Qualifier RL MDL 10 U 10 10 U 10	Result Qualifier RL MDL Unit 10 U 10 ug/L 10 U 10 ug/L	Result Qualifier RL MDL Unit D 10 U 10 ug/L ug/L 10 U 10 ug/L ug/L	Result Qualifier RL MDL Unit D Prepared 10 U 10 ug/L 11/17/15 15:53 10 U 10 ug/L 11/17/15 15:53	Result Qualifier RL MDL Unit D Prepared Analyzed 10 U 10 ug/L 11/17/15 15:53 11/20/15 18:09 10

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

MD MD

Lab Sample ID: MB 680-410700/7-A

Lab Sample ID: LCS 680-410700/8-A

Matrix: Water

Matrix: Water

Analysis Batch: 411357

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 410700

	MR	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
2-Methylnaphthalene	10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
Naphthalene	10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
Phenanthrene	10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1
Pyrene	10	U	10		ug/L		11/17/15 15:53	11/20/15 18:09	1

MR MR

	IND	IVID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	53		32 - 114	11/17/15 15:53	11/20/15 18:09	1
Nitrobenzene-d5 (Surr)	61		30 - 117	11/17/15 15:53	11/20/15 18:09	1
Terphenyl-d14 (Surr)	72		10 - 132	11/17/15 15:53	11/20/15 18:09	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 410700

Analysis Batch: 411357	Spike	LCS	LCS				Prep Batch: 410700 %Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Acenaphthene	100	63.3		ug/L		63	32 - 107
Acenaphthylene	100	63.5		ug/L		63	10 - 119
Anthracene	100	69.9		ug/L		70	38 - 112
Benzo[a]anthracene	100	69.6		ug/L		70	36 - 115
Benzo[a]pyrene	100	66.6		ug/L		67	13 - 120
Benzo[b]fluoranthene	100	67.0		ug/L		67	32 - 117
Benzo[g,h,i]perylene	100	63.4		ug/L		63	21 - 118
Benzo[k]fluoranthene	100	67.5		ug/L		67	28 - 125
Chrysene	100	66.6		ug/L		67	36 - 113
Dibenz(a,h)anthracene	100	62.2		ug/L		62	32 - 115
Fluoranthene	100	71.2		ug/L		71	41 - 113
Fluorene	100	67.3		ug/L		67	39 - 115
Indeno[1,2,3-cd]pyrene	100	51.9		ug/L		52	16 - 119
1-Methylnaphthalene	100	56.1		ug/L		56	26 - 94
2-Methylnaphthalene	100	58.6		ug/L		59	24 - 92
Naphthalene	100	52.9		ug/L		53	24 - 85
Phenanthrene	100	66.6		ug/L		67	40 - 114
Pyrene	100	69.8		ug/L		70	29 - 118

LCS LCS

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl	56	32 - 114
Nitrobenzene-d5 (Surr)	70	30 - 117
Terphenyl-d14 (Surr)	69	10 - 132

Lab Sample ID: 680-118974-9 MS

Matrix: Water Analysis Batch: 411357									Prep Ba	e: Total/NA tch: 410700
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	9.5	U	93.7	52.1		ug/L		56	32 - 107	
Acenaphthylene	9.5	U	93.7	47.6		ug/L		51	10 - 119	
Anthracene	9.5	U	93.7	54.4		ug/L		58	38 - 112	

TestAmerica Savannah

Client Sample ID: TMW-1_11122015

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-118974-9 MS **Matrix: Water**

Analysis Batch: 411357

Client Sample ID: TMW-1_11122015 Prep Type: Total/NA **Prep Batch: 410700**

MS MS Sample Sample Spike %Rec. Result Qualifier Result Qualifier Analyte Added Unit %Rec Limits 9.5 U F1 93.7 30.6 F1 ug/L 33 36 - 115 Benzo[a]anthracene Benzo[a]pyrene 9.5 U 93.7 20.8 ug/L 22 13 - 120 Benzo[b]fluoranthene 9.5 UF1 93.7 20.4 F1 ug/L 22 32 - 117 Benzo[g,h,i]perylene 9.5 UF1 93.7 19.8 ug/L 21 21 - 118 Benzo[k]fluoranthene 9.5 UF1 93.7 21.9 F1 ug/L 23 28 - 125 29 Chrysene 9.5 UF1 93.7 26.9 F1 ug/L 36 - 113 Dibenz(a,h)anthracene 9.5 UF1 93.7 20.1 F1 ug/L 21 32 - 115 ug/L Fluoranthene 51 9.5 U 93.7 48.2 41 - 113 Fluorene 9.5 U 93.7 55.0 ug/L 59 39 - 115 Indeno[1,2,3-cd]pyrene 9.5 U F2 F1 93.7 21.7 23 16 - 119 ug/L 1-Methylnaphthalene 9.5 U 93.7 57.7 ug/L 54 26 - 94 24 - 92 2-Methylnaphthalene 93.7 56.1 ug/L 51 9.5 Naphthalene 32 93.7 101 ug/L 73 24 - 85 Phenanthrene 93.7 55.6 59 40 - 114 9.5 U ug/L Pyrene 9.5 U 93.7 47.6 ug/L 51 29 - 118

MS MS

Surrogate	%Recovery Qualifier	· Limits
2-Fluorobiphenyl	48	32 - 114
Nitrobenzene-d5 (Surr)	59	30 - 117
Terphenyl-d14 (Surr)	25	10 - 132

Lab Sample ID: 680-118974-9 MSD

Matrix: Water

Analysis Batch: 411357

Client Sample	ID: TMW-1	_11122015
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Prep Type: Total/NA **Prep Batch: 410700**

Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit 20 Acenaphthene 9.5 U 93.2 53.3 ug/L 57 32 - 107 2 Acenaphthylene 9.5 U 93.2 50.0 ug/L 54 10 - 119 5 20 93.2 52.3 ug/L 56 38 - 112 20 Anthracene 9.5 U Benzo[a]anthracene 9.5 UF1 93.2 27.8 F1 ug/L 30 36 - 115 9 40 21 Benzo[a]pyrene 9.5 U 93.2 ug/L 13 - 1208 40 19.3 Benzo[b]fluoranthene 9.5 UF1 93.2 20.0 F1 ug/L 21 32 - 117 2 50 93.2 21 - 118 18 Benzo[g,h,i]perylene 9.5 UF1 16.5 F1 ug/L 18 50 Benzo[k]fluoranthene 9.5 UF1 93.2 19.0 F1 ug/L 20 28 - 125 14 40 Chrysene 9.5 UF1 93.2 24.4 F1 ug/L 26 36 - 113 10 50 Dibenz(a,h)anthracene 9.5 UF1 93.2 16.6 F1 ug/L 18 32 - 115 19 40 Fluoranthene 9.5 U 93.2 45.7 49 41 - 113 5 40 ug/L Fluorene 9.5 U 93.2 53.1 ug/L 57 39 - 115 3 20 Indeno[1,2,3-cd]pyrene 9.5 UF2F1 93.2 13.4 F1 F2 ug/L 14 16 - 119 47 40 1-Methylnaphthalene 9.5 U 93.2 58.4 ug/L 55 26 - 941 50 2-Methylnaphthalene 9.5 U 93.2 59.6 ug/L 56 24 - 92 6 30 Naphthalene 32 93.2 98 4 ug/L 71 24 - 85 2 40 Phenanthrene 9.5 U 93.2 52.9 57 40 - 114 ug/L 40 93.2 45.5 49 29 - 118 50 Pyrene 9.5 U ug/L

> MSD MSD %Recovery Qualifier Limits

Surrogate 2-Fluorobiphenyl 32 - 114 49

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-118974-9 MSD

Lab Sample ID: MB 680-411724/2-A

Matrix: Water

Matrix: Water

Analysis Batch: 411357

Analysis Batch: 412162

Client Sample ID: TMW-1_11122015 **Prep Type: Total/NA**

Prep Batch: 410700

MSD MSD %Recovery Qualifier

Surrogate Limits Nitrobenzene-d5 (Surr) 30 - 117 57 Terphenyl-d14 (Surr) 23 10 - 132

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 411724

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Acenaphthylene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Anthracene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Benzo[a]anthracene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Benzo[a]pyrene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Benzo[b]fluoranthene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Benzo[g,h,i]perylene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Benzo[k]fluoranthene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Chrysene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Dibenz(a,h)anthracene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Fluoranthene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Fluorene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Indeno[1,2,3-cd]pyrene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
1-Methylnaphthalene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
2-Methylnaphthalene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Naphthalene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Phenanthrene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	
Pyrene	10	U	10		ug/L		11/24/15 15:42	11/27/15 15:53	1	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	23	X	32 - 114	11/24/15 15:42	11/27/15 15:53	1
Nitrobenzene-d5 (Surr)	30		30 - 117	11/24/15 15:42	11/27/15 15:53	1
Terphenyl-d14 (Surr)	35		10 - 132	11/24/15 15:42	11/27/15 15:53	1

Lab Sample ID: LCS 680-411724/3-A

Matrix: Water

Analysis Batch: 412162

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 411724

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	100	38.8		ug/L		39	32 - 107	
Acenaphthylene	100	30.1		ug/L		30	10 - 119	
Anthracene	100	41.4		ug/L		41	38 - 112	
Benzo[a]anthracene	100	40.5		ug/L		40	36 - 115	
Benzo[a]pyrene	100	41.1		ug/L		41	13 - 120	
Benzo[b]fluoranthene	100	57.3		ug/L		57	32 - 117	
Benzo[g,h,i]perylene	100	42.2		ug/L		42	21 - 118	
Benzo[k]fluoranthene	100	58.4		ug/L		58	28 - 125	
Chrysene	100	38.9		ug/L		39	36 - 113	
Dibenz(a,h)anthracene	100	53.8		ug/L		54	32 - 115	
Fluoranthene	100	42.8		ua/L		43	41 - 113	

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-411724/3-A **Matrix: Water**

Analysis Batch: 412162

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 411724

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluorene	100	40.2	-	ug/L		40	39 - 115	
Indeno[1,2,3-cd]pyrene	100	29.9		ug/L		30	16 - 119	
1-Methylnaphthalene	100	32.8		ug/L		33	26 - 94	
2-Methylnaphthalene	100	30.9		ug/L		31	24 - 92	
Naphthalene	100	30.2		ug/L		30	24 - 85	
Phenanthrene	100	40.8		ug/L		41	40 - 114	
Pyrene	100	38.9		ug/L		39	29 - 118	

LCS LCS

Surrogate	%Recovery (Qualifier	Limits
2-Fluorobiphenyl	34		32 - 114
Nitrobenzene-d5 (Surr)	37		30 - 117
Terphenyl-d14 (Surr)	41		10 - 132

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Lab Sample ID: 680-118974-9 MS

Matrix: Water

Client Sample ID: TMW-1_11122015 Prep Type: Total/NA

Analysis Batch: 412162 Prep Batch: 411724 Sample Sample Spike MS MS %Rec. Limits Analyte Result Qualifier Added Result Qualifier Unit D %Rec Acenaphthene - RE 9.6 U H 97.0 65.6 H ug/L 68 32 - 107 Acenaphthylene - RE 53.4 H 9.6 UH 97.0 ug/L 55 10 - 119 Anthracene - RE 9.6 UH 97.0 63.1 H 65 38 - 112 ug/L 40.4 H* Benzo[a]anthracene - RE 9.6 UH 97.0 42 36 - 115 ug/L Benzo[a]pyrene - RE 9.6 UH 97.0 24.5 H* 25 13 - 120 ug/L 32 - 117 97.0 ug/L 29 Benzo[b]fluoranthene - RE 9.6 UHF1 27.9 HF1* Benzo[g,h,i]perylene - RE 9.6 UH 97.0 24.6 H* ug/L 25 21 - 118 Benzo[k]fluoranthene - RE 9.6 UHF1 97.0 25.0 HF1* ug/L 26 28 - 125 36.0 H* Chrysene - RE 9.6 UHF1 97.0 ug/L 37 36 - 113Dibenz(a,h)anthracene - RE 9.6 UHF1 97.0 25.5 H F1 * ug/L 26 32 - 115 Fluoranthene - RE 41 - 113 9.6 UH 97.0 63.3 H ug/L 65 Fluorene - RE 9.6 U H 97.0 62.9 H ug/L 65 39 - 115 16 - 119 Indeno[1,2,3-cd]pyrene - RE 97.0 26.3 H* 9.6 UH ug/L 26 - 94 1-Methylnaphthalene - RE 97.0 61 9.6 UH 64.0 H ug/L 24 - 92 2-Methylnaphthalene - RE 9.6 UH 97.0 61.8 H 58 ug/L Naphthalene - RE 26 HF1 97.0 129 HF1 ug/L 106 24 - 85 Phenanthrene - RE 9.6 UH 97.0 65.0 H ug/L 67 40 - 114 Pyrene - RE 9.6 UH 97.0 54.1 H* ug/L 56 29 - 118

MS MS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl - RE	58		32 - 114
Nitrobenzene-d5 (Surr) - RE	68		30 - 117
Terphenyl-d14 (Surr) - RE	27	*	10 - 132

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TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Lab Sample ID: 680-118974-9 MSD

Matrix: Water

Client Sample ID: TMW-1_11122015

Prep Type: Total/NA

Analysis Batch: 412162									Prep Ba	itch: 4	11724
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene - RE	9.6	UH	95.6	58.2	Н	ug/L		61	32 - 107	12	20
Acenaphthylene - RE	9.6	U H	95.6	45.7	Н	ug/L		48	10 - 119	16	20
Anthracene - RE	9.6	U H	95.6	54.8	Н	ug/L		57	38 - 112	14	20
Benzo[a]anthracene - RE	9.6	UH	95.6	36.5	H *	ug/L		38	36 - 115	10	40
Benzo[a]pyrene - RE	9.6	U H	95.6	22.3	H *	ug/L		23	13 - 120	9	40
Benzo[b]fluoranthene - RE	9.6	U H F1	95.6	24.4	H * F1	ug/L		25	32 - 117	14	50
Benzo[g,h,i]perylene - RE	9.6	UH	95.6	20.4	H *	ug/L		21	21 - 118	19	50
Benzo[k]fluoranthene - RE	9.6	U H F1	95.6	23.4	H * F1	ug/L		24	28 - 125	7	40
Chrysene - RE	9.6	U H F1	95.6	31.9	H * F1	ug/L		33	36 - 113	12	50
Dibenz(a,h)anthracene - RE	9.6	U H F1	95.6	22.4	H * F1	ug/L		23	32 - 115	13	40
Fluoranthene - RE	9.6	UH	95.6	53.8	Н	ug/L		56	41 - 113	16	40
Fluorene - RE	9.6	U H	95.6	54.4	Н	ug/L		57	39 - 115	15	20
Indeno[1,2,3-cd]pyrene - RE	9.6	UH	95.6	22.1	H *	ug/L		23	16 - 119	17	40
1-Methylnaphthalene - RE	9.6	U H	95.6	53.6	Н	ug/L		51	26 - 94	18	50
2-Methylnaphthalene - RE	9.6	U H	95.6	50.1	Н	ug/L		47	24 - 92	21	30
Naphthalene - RE	26	H F1	95.6	108	Н	ug/L		85	24 - 85	18	40
Phenanthrene - RE	9.6	UH	95.6	55.5	Н	ug/L		58	40 - 114	16	40
Pyrene - RE	9.6	UH	95.6	47.9	H *	ug/L		50	29 - 118	12	50

9.6 U H MSD MSD

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl - RE	48	32 - 114
Nitrobenzene-d5 (Surr) - RE	59	30 - 117
Terphenvl-d14 (Surr) - RE	25 *	10 - 132

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-410722/1-A

Matrix: Water

Analysis Batch: 410905

Client Sample ID	: Method Blank
Prep	Type: Total/NA

Prep Batch: 410722

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/17/15 10:31	11/18/15 03:31	1
Chromium	10	U	10		ug/L		11/17/15 10:31	11/18/15 03:31	1
Lead	10	U	10		ug/L		11/17/15 10:31	11/18/15 03:31	1
Nickel	40	U	40		ug/L		11/17/15 10:31	11/18/15 03:31	1
Zinc	20	U	20		ug/L		11/17/15 10:31	11/18/15 03:31	1
	Arsenic Chromium Lead Nickel	Analyte Result Arsenic 20 Chromium 10 Lead 10 Nickel 40	Arsenic 20 U Chromium 10 U Lead 10 U Nickel 40 U	Analyte Result drsenic Qualifier RL Arsenic 20 U 20 Chromium 10 U 10 Lead 10 U 10 Nickel 40 U 40	Analyte Result drsenic Qualifier RL or	Analyte Result Arsenic Qualifier RL MDL Unit Chromium 10 U 10 ug/L Lead 10 U 10 ug/L Nickel 40 U 40 ug/L	Analyte Result Arsenic Qualifier RL MDL Unit ug/L D Chromium 10 U 10 ug/L ug/L ug/L Lead 10 U 10 ug/L ug/L Nickel 40 U 40 ug/L	Analyte Result Arsenic Qualifier RL MDL Unit Unit Unit Unit Unit Unit Unit Unit	Analyte Result Arsenic Qualifier RL MDL Unit Unit Unit Unit Unit Unit Unit Unit

Lab Sample ID: LCS 680-410722/2-A

Matrix: Water

Analysis Batch: 410905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410722

	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Arsenic	100	89.7		ug/L		90	80 - 120		
Chromium	100	92.1		ug/L		92	80 - 120		
Lead	500	455		ug/L		91	80 - 120		
Nickel	100	89.2		ug/L		89	80 - 120		
Zinc	100	90.2		ug/L		90	80 - 120		
Zinc	100	90.2		ug/L		90		80 - 120	80 - 120

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 680-410954/1-A

Lab Sample ID: LCS 680-410954/2-A

Matrix: Water

Matrix: Water

Analysis Batch: 411246

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 410954

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20		ug/L		11/18/15 10:36	11/19/15 14:25	1
Chromium	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:25	1
Lead	10	U	10		ug/L		11/18/15 10:36	11/19/15 14:25	1
Nickel	40	U	40		ug/L		11/18/15 10:36	11/19/15 14:25	1
Zinc	20	U	20		ug/L		11/18/15 10:36	11/19/15 14:25	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 410954

Analysis Batch: 411246 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 100 ug/L 90 80 - 120 Arsenic 90.2 ug/L Chromium 100 97.6 98 80 - 120 Lead 500 488 ug/L 98 80 - 120 Nickel 100 96 95.7 ug/L 80 - 120 Zinc 100 96.7 ug/L 80 - 120

Lab Sample ID: 680-118974-9 MS

Matrix: Water

Analysis Batch: 411246

Client Sample ID: TMW-1_11122015

Prep Type: Total/NA

Prep Batch: 410954

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	150	 -	100	233		ug/L		88	75 - 125	
Chromium	29		100	119		ug/L		90	75 - 125	
Lead	10	U	500	472		ug/L		94	75 ₋ 125	
Nickel	40	U	100	123		ug/L		90	75 - 125	
Zinc	78		100	169		ug/L		91	75 ₋ 125	

Lab Sample ID: 680-118974-9 MSD

Matrix: Water

Analysis Batch: 411246

Client Sample ID: TMW-1_11122015

Prep Type: Total/NA Prop Batch: 410954

Alialysis Dalcii. 411240									Fieb De	ucn. 4	10354
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	150		100	234		ug/L		89	75 - 125	0	20
Chromium	29		100	118		ug/L		88	75 - 125	1	20
Lead	10	U	500	458		ug/L		92	75 - 125	3	20
Nickel	40	U	100	119		ug/L		86	75 - 125	3	20
Zinc	78		100	166		ug/L		88	75 - 125	2	20
_											

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-411340/30

Matrix: Water

Analysis Batch: 411340

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Result Qualifier Dil Fac **Analyte** RL **MDL** Unit Prepared Analyzed Ammonia 0.25 U 0.25 mg/L 11/19/15 17:53

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-411340/46

Lab Sample ID: LCSD 680-411340/35

Matrix: Water

Analysis Batch: 411340

Analyte 1.00 Ammonia

Spike LCS LCS Added

Result Qualifier 1.03

Unit mg/L D %Rec 103

Limits 90 - 110

%Rec.

Client Sample ID: TMW-1_11122015

%Rec.

Client Sample ID: Lab Control Sample

RPD

30

RPD

Limit

30

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 411340

Analyte

Ammonia

Spike Added 1.00

LCSD LCSD Result Qualifier 1.04

Unit mg/L

Limits %Rec 104

RPD Limit 90 - 110

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

RPD

19

Lab Sample ID: 680-118974-9 MS

Matrix: Water

Analysis Batch: 411340

Analyte

Sample Sample Result Qualifier 3600 F1

Spike Added 1000

MS MS Result Qualifier Unit 3930 F1 mg/L

Unit

mg/L

MSD MSD

4750 F1

Result Qualifier

D %Rec 32

%Rec

114

%Rec. Limits 90 - 110

Client Sample ID: TMW-1_11122015

%Rec.

Limits

90 - 110

Client Sample ID: Method Blank

Lab Sample ID: 680-118974-9 MSD

Matrix: Water

Ammonia

Analysis Batch: 411340

•	Sample	Sample	Spike		
Analyte	Result	Qualifier	Added		
Ammonia	3600	F1 -	1000		

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-410397/13

Matrix: Water

Analysis Batch: 410397

MB MB

Analyte Result Qualifier RL **MDL** Unit Dil Fac Prepared Analyzed Nitrate as N 0.050 U 0.050 mg/L 11/13/15 15:32 Nitrate Nitrite as N 0.050 U 0.050 mg/L 11/13/15 15:32 0.050 U Nitrite as N 0.050 mg/L 11/13/15 15:32

Lab Sample ID: LCS 680-410397/16

Matrix: Water

Analysis Batch: 410397

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec I imits Nitrate as N 0.500 0.506 mg/L 101 75 - 125 Nitrate Nitrite as N 1.00 0.999 mg/L 100 90 - 110 Nitrite as N 0.500 0.493 mg/L 90 - 110 99

Lab Sample ID: 680-118974-9 MS

Matrix: Water

Nitrate as N

Analysis Batch: 410397

Analyte

Sample Sample Spike Result Qualifier Added 250 F1 100

MS MS Result Qualifier 308 F1

Unit mg/L

%Rec. %Rec Limits 58 75 - 125

Client Sample ID: TMW-1_11122015

Prep Type: Total/NA

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-118974-9 MS Client Sample ID: TMW-1_11122015 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 410397

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate Nitrite as N	250	F1	200	416	F1	mg/L		81	90 - 110	
Nitrite as N	10	U	100	108		mg/L		104	90 - 110	

Lab Sample ID: 680-118974-9 MSD Client Sample ID: TMW-1_11122015 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 410397

Alialysis Batch. 410007												
•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Nitrate as N	250	F1	100	308	F1	mg/L		58	75 - 125	0	30	
Nitrate Nitrite as N	250	F1	200	416	F1	mg/L		80	90 - 110	0	10	
Nitrite as N	10	U	100	108		mg/L		104	90 - 110	0	10	

Lab Sample ID: 680-118974-10 DU **Client Sample ID: DUP-02_11122015 Prep Type: Total/NA Matrix: Water**

Analysis Batch: 410397

Alialysis Dalcii. 410331								
-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Nitrate as N	230		227		mg/L		 1	30
Nitrate Nitrite as N	230		227		mg/L		0.3	10
Nitrite as N	10	U	10	U	mg/L		NC	10

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

GC/MS VOA

Analysis Batch: 410671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9	TMW-1_11122015	Total/NA	Water	8260B	
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	8260B	
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	8260B	
680-118974-10	DUP-02_11122015	Total/NA	Water	8260B	
680-118974-12	EBJ_11122015	Total/NA	Water	8260B	
680-118974-13	FB_11122015	Total/NA	Water	8260B	
680-118974-14	TB_11122015	Total/NA	Water	8260B	
LCS 680-410671/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-410671/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-410671/11	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 410700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9	TMW-1_11122015	Total/NA	Water	3520C	
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	3520C	
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	3520C	
680-118974-10	DUP-02_11122015	Total/NA	Water	3520C	
680-118974-12	EBJ_11122015	Total/NA	Water	3520C	
680-118974-13	FB_11122015	Total/NA	Water	3520C	
LCS 680-410700/8-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-410700/7-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 411357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9	TMW-1_11122015	Total/NA	Water	8270D	410700
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	8270D	410700
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	8270D	410700
680-118974-10	DUP-02_11122015	Total/NA	Water	8270D	410700
680-118974-12	EBJ_11122015	Total/NA	Water	8270D	410700
LCS 680-410700/8-A	Lab Control Sample	Total/NA	Water	8270D	410700
MB 680-410700/7-A	Method Blank	Total/NA	Water	8270D	410700

Prep Batch: 411724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9 - RE	TMW-1_11122015	Total/NA	Water	3520C	
680-118974-9 MS - RE	TMW-1_11122015	Total/NA	Water	3520C	
680-118974-9 MSD - RE	TMW-1_11122015	Total/NA	Water	3520C	
LCS 680-411724/3-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-411724/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 412023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-13	FB_11122015	Total/NA	Water	8270D	410700

Analysis Batch: 412162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9 - RE	TMW-1_11122015	Total/NA	Water	8270D	411724
680-118974-9 MS - RE	TMW-1 11122015	Total/NA	Water	8270D	411724

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

GC/MS Semi VOA (Continued)

Analysis Batch: 412162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9 MSD - RE	TMW-1_11122015	Total/NA	Water	8270D	411724
LCS 680-411724/3-A	Lab Control Sample	Total/NA	Water	8270D	411724
MB 680-411724/2-A	Method Blank	Total/NA	Water	8270D	411724

Metals

Prep Batch: 410722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-1	EW-1_11122015	Total/NA	Water	3010A	
680-118974-2	PDMW-19P_11122015	Total/NA	Water	3010A	
680-118974-3	PDMW-10R_11122015	Total/NA	Water	3010A	
680-118974-4	TMW-4R_11122015	Total/NA	Water	3010A	
680-118974-6	PDMW-8R_11122015	Total/NA	Water	3010A	
680-118974-8	MW-3R_11122015	Total/NA	Water	3010A	
680-118974-11	EBP_11122015	Total/NA	Water	3010A	
680-118974-12	EBJ_11122015	Total/NA	Water	3010A	
680-118974-13	FB_11122015	Total/NA	Water	3010A	
LCS 680-410722/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-410722/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 410905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-1	EW-1_11122015	Total/NA	Water	6010C	410722
680-118974-2	PDMW-19P_11122015	Total/NA	Water	6010C	410722
680-118974-3	PDMW-10R_11122015	Total/NA	Water	6010C	410722
680-118974-4	TMW-4R_11122015	Total/NA	Water	6010C	410722
680-118974-6	PDMW-8R_11122015	Total/NA	Water	6010C	410722
680-118974-8	MW-3R_11122015	Total/NA	Water	6010C	410722
680-118974-11	EBP_11122015	Total/NA	Water	6010C	410722
680-118974-12	EBJ_11122015	Total/NA	Water	6010C	410722
680-118974-13	FB_11122015	Total/NA	Water	6010C	410722
LCS 680-410722/2-A	Lab Control Sample	Total/NA	Water	6010C	410722
MB 680-410722/1-A	Method Blank	Total/NA	Water	6010C	410722

Prep Batch: 410954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-5	PDMW-26T_11122015	Total/NA	Water	3010A	<u> </u>
680-118974-7	DUP-01_11122015	Total/NA	Water	3010A	
680-118974-9	TMW-1_11122015	Total/NA	Water	3010A	
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	3010A	
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	3010A	
680-118974-10	DUP-02_11122015	Total/NA	Water	3010A	
LCS 680-410954/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 680-410954/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 411246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-5	PDMW-26T_11122015	Total/NA	Water	6010C	410954
680-118974-7	DUP-01_11122015	Total/NA	Water	6010C	410954
680-118974-9	TMW-1_11122015	Total/NA	Water	6010C	410954

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Metals (Continued)

Analysis Batch: 411246 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	6010C	410954
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	6010C	410954
680-118974-10	DUP-02_11122015	Total/NA	Water	6010C	410954
LCS 680-410954/2-A	Lab Control Sample	Total/NA	Water	6010C	410954
MB 680-410954/1-A	Method Blank	Total/NA	Water	6010C	410954

General Chemistry

Analysis Batch: 410397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-1	EW-1_11122015	Total/NA	Water	353.2	_
680-118974-2	PDMW-19P_11122015	Total/NA	Water	353.2	
680-118974-3	PDMW-10R_11122015	Total/NA	Water	353.2	
680-118974-4	TMW-4R_11122015	Total/NA	Water	353.2	
680-118974-5	PDMW-26T_11122015	Total/NA	Water	353.2	
680-118974-6	PDMW-8R_11122015	Total/NA	Water	353.2	
680-118974-7	DUP-01_11122015	Total/NA	Water	353.2	
680-118974-8	MW-3R_11122015	Total/NA	Water	353.2	
680-118974-9	TMW-1_11122015	Total/NA	Water	353.2	
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	353.2	
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	353.2	
680-118974-10	DUP-02_11122015	Total/NA	Water	353.2	
680-118974-10 DU	DUP-02_11122015	Total/NA	Water	353.2	
680-118974-11	EBP_11122015	Total/NA	Water	353.2	
680-118974-12	EBJ_11122015	Total/NA	Water	353.2	
680-118974-13	FB_11122015	Total/NA	Water	353.2	
LCS 680-410397/16	Lab Control Sample	Total/NA	Water	353.2	
MB 680-410397/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 411340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-118974-1	EW-1_11122015	Total/NA	Water	350.1	_
680-118974-2	PDMW-19P_11122015	Total/NA	Water	350.1	
680-118974-3	PDMW-10R_11122015	Total/NA	Water	350.1	
680-118974-4	TMW-4R_11122015	Total/NA	Water	350.1	
680-118974-5	PDMW-26T_11122015	Total/NA	Water	350.1	
680-118974-6	PDMW-8R_11122015	Total/NA	Water	350.1	
680-118974-7	DUP-01_11122015	Total/NA	Water	350.1	
680-118974-8	MW-3R_11122015	Total/NA	Water	350.1	
680-118974-9	TMW-1_11122015	Total/NA	Water	350.1	
680-118974-9 MS	TMW-1_11122015	Total/NA	Water	350.1	
680-118974-9 MSD	TMW-1_11122015	Total/NA	Water	350.1	
680-118974-10	DUP-02_11122015	Total/NA	Water	350.1	
680-118974-11	EBP_11122015	Total/NA	Water	350.1	
680-118974-12	EBJ_11122015	Total/NA	Water	350.1	
680-118974-13	FB_11122015	Total/NA	Water	350.1	
LCS 680-411340/46	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-411340/35	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-411340/30	Method Blank	Total/NA	Water	350.1	

TestAmerica Savannah

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Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: EW-1_11122015

Date Collected: 11/12/15 09:58 Date Received: 11/13/15 08:30

Lab Sample ID: 680-118974-1 **Matrix: Water**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410905	11/18/15 04:24	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		200	2 mL	2 mL	411340	11/19/15 18:47	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 15:43	GRX	TAL SAV

Client Sample ID: PDMW-19P_11122015 Lab Sample ID: 680-118974-2

Date Collected: 11/12/15 09:30 Date Received: 11/13/15 08:30

Matrix: Water

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Amount Amount Number or Analyzed Run **Factor** Analyst Lab Total/NA Prep 3010A 50 mL 50 mL 410722 11/17/15 10:31 CRW TAL SAV Total/NA 410905 TAL SAV Analysis 6010C 50 mL 50 mL 11/18/15 04:28 BCB 1 Instrument ID: ICPE 350.1 5 Total/NA Analysis 2 mL 2 mL 411340 11/19/15 17:34 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 410397 11/13/15 15:50 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: PDMW-10R 11122015 Lab Sample ID: 680-118974-3

Date Collected: 11/12/15 10:48 Date Received: 11/13/15 08:30

Matrix: Water

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed **Analyst** Lab Total/NA Prep 3010A 50 mL 50 mL 410722 11/17/15 10:31 CRW TAL SAV Total/NA 6010C 50 mL 50 mL 410905 11/18/15 04:33 BCB TAL SAV Analysis 1 Instrument ID: ICPE Total/NA Analysis 350.1 5 2 mL 2 mL 411340 11/19/15 16:58 JME TAL SAV Instrument ID: KONELAB1 Total/NA Analysis 353.2 2 mL 2 mL 410397 11/13/15 16:52 GRX TAL SAV Instrument ID: LACHAT2

Client Sample ID: TMW-4R 11122015

Date Collected: 11/12/15 10:30

Lab Sample ID: 680-118974-4 **Matrix: Water** Date Received: 11/13/15 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	410905	11/18/15 04:37	BCB	TAL SAV
	Instrume	nt ID: ICPE								

2

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: TMW-4R_11122015

Client Sample ID: PDMW-26T_11122015

Date Collected: 11/12/15 10:30 Date Received: 11/13/15 08:30

Lab Sample ID: 680-118974-4

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		2	2 mL	2 mL	411340	11/19/15 17:34	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	410397	11/13/15 16:53	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Lab Sample ID: 680-118974-5

Date Collected: 11/12/15 13:55

Matrix: Water

Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	-	-	50 mL	50 mL	410954	11/18/15 10:36	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	411246	11/19/15 14:51	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		400	2 mL	2 mL	411340	11/20/15 09:10	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 15:56	GRX	TAL SAV

Client Sample ID: PDMW-8R_11122015

Date Collected: 11/12/15 13:00 Date Received: 11/13/15 08:30

DMW-8R_11122015 Lab Sample ID: 680-118974-6
513:00 Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410905	11/18/15 04:42	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		50	2 mL	2 mL	411340	11/19/15 18:02	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 16:50	GRX	TAL SAV

Client Sample ID: DUP-01_11122015

Instrument ID: LACHAT2

Date Collected: 11/12/15 00:00

Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A		· 	50 mL	50 mL	410954	11/18/15 10:36	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	411246	11/19/15 14:55	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		400	2 mL	2 mL	411340	11/20/15 09:10	JME	TAL SAV
Total/NA	Analysis	353.2		1	2 mL	2 mL	410397	11/13/15 16:01	GRX	TAL SAV

TestAmerica Savannah

Lab Sample ID: 680-118974-7

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Matrix: Water

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: MW-3R_11122015

TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-8

Matrix: Water

Date Collected: 11/12/15 00:00 Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A	-		50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410905	11/18/15 04:55	BCB	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411340	11/19/15 17:20	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 16:02	GRX	TAL SAV

Client Sample ID: TMW-1_11122015 Lab Sample ID: 680-118974-9

Date Collected: 11/12/15 15:13 **Matrix: Water**

Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	- 	1	5 mL	5 mL	410671	11/17/15 13:20	CEJ	TAL SAV
	Instrume	nt ID: CMSO2								
Total/NA	Prep	3520C	RE		260 mL	0.5 mL	411724	11/24/15 15:42	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	260 mL	0.5 mL	412162	11/27/15 19:28	CAR	TAL SAV
	Instrume	nt ID: CMSE								
Total/NA	Prep	3520C			263.3 mL	0.5 mL	410700	11/17/15 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	263.3 mL	0.5 mL	411357	11/20/15 21:00	CAR	TAL SAV
	Instrume	nt ID: CMSG								
Total/NA	Prep	3010A			50 mL	50 mL	410954	11/18/15 10:36	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	411246	11/19/15 14:40	BCB	TAL SAV
	Instrume	nt ID: ICPE								
Total/NA	Analysis	350.1		5000	2 mL	2 mL	411340	11/20/15 09:25	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		200	2 mL	2 mL	410397	11/13/15 15:37	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: DUP-02_11122015 Lab Sample ID: 680-118974-10

Date Collected: 11/12/15 00:00 **Matrix: Water** Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	410671	11/17/15 15:27	CEJ	TAL SAV
	Instrume	nt ID: CMSO2								
Total/NA	Prep	3520C			258.5 mL	0.5 mL	410700	11/17/15 15:53	RBS	TAL SAV
Total/NA	Analysis	8270D		1	258.5 mL	0.5 mL	411357	11/20/15 21:25	CAR	TAL SAV
	Instrume	nt ID: CMSG								
Total/NA	Prep	3010A			50 mL	50 mL	410954	11/18/15 10:36	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	411246	11/19/15 14:58	BCB	TAL SAV
	Instrume	nt ID: ICPE								
Total/NA	Analysis	350.1		5000	2 mL	2 mL	411340	11/20/15 09:25	JME	TAL SAV
	Instrume	nt ID: KONELAB1								

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Client Sample ID: DUP-02_11122015

Date Collected: 11/12/15 00:00 Date Received: 11/13/15 08:30

Lab Sample ID: 680-118974-10

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		200	2 mL	2 mL	410397	11/13/15 15:41	GRX	TAL SAV
	Inetrumo	of ID: I ACHAT2								

Lab Sample ID: 680-118974-11

Client Sample ID: EBP_11122015 Date Collected: 11/12/15 15:15 **Matrix: Water**

Date Received: 11/13/15 08:30

Prep Type Total/NA Total/NA	Batch Type Prep Analysis Instrume	Method 3010A 6010C nt ID: ICPE	Run	Factor 1	Initial Amount 50 mL 50 mL	Final Amount 50 mL 50 mL	Batch Number 410722 410905	Prepared or Analyzed 11/17/15 10:31 11/18/15 05:00		Lab TAL SAV TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411340	11/19/15 16:38	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 16:03	GRX	TAL SAV

Client Sample ID: EBJ_11122015 Lab Sample ID: 680-118974-12

Date Collected: 11/12/15 16:35 **Matrix: Water**

Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis Instrume	8260B nt ID: CMSO2		1	5 mL	5 mL	410671	11/17/15 11:35	CEJ	TAL SAV
Total/NA	Prep	3520C			259.6 mL	0.5 mL	410700	11/17/15 15:53	RBS	TAL SAV
Total/NA	Analysis Instrume	8270D nt ID: CMSG		1	259.6 mL	0.5 mL	411357	11/20/15 21:50	CAR	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis Instrume	6010C nt ID: ICPE		1	50 mL	50 mL	410905	11/18/15 05:04	ВСВ	TAL SAV
Total/NA	Analysis Instrume	350.1 nt ID: KONELAB1		1	2 mL	2 mL	411340	11/19/15 16:38	JME	TAL SAV
Total/NA	Analysis Instrume	353.2 nt ID: LACHAT2		1	2 mL	2 mL	410397	11/13/15 16:05	GRX	TAL SAV

Client Sample ID: FB_11122015 Lab Sample ID: 680-118974-13 Date Collected: 11/12/15 15:35 **Matrix: Water**

Date Received: 11/13/15 08:30

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	410671	11/17/15 11:56	CEJ	TAL SAV
	Instrumer	nt ID: CMSO2								
Total/NA	Prep	3520C			260.4 mL	0.5 mL	410700	11/17/15 15:53	RBS	TAL SAV

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Lab Sample ID: 680-118974-13

Matrix: Water

Client Sample ID: FB_11122015 Date Collected: 11/12/15 15:35 Date Received: 11/13/15 08:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	260.4 mL	0.5 mL	412023	11/26/15 02:09	CAR	TAL SAV
	Instrume	nt ID: CMSN								
Total/NA	Prep	3010A			50 mL	50 mL	410722	11/17/15 10:31	CRW	TAL SAV
Total/NA	Analysis	6010C		1	50 mL	50 mL	410905	11/18/15 05:09	BCB	TAL SAV
	Instrume	nt ID: ICPE								
Total/NA	Analysis	350.1		1	2 mL	2 mL	411340	11/19/15 16:38	JME	TAL SAV
	Instrume	nt ID: KONELAB1								
Total/NA	Analysis	353.2		1	2 mL	2 mL	410397	11/13/15 16:06	GRX	TAL SAV
	Instrume	nt ID: LACHAT2								

Client Sample ID: TB_11122015 Lab Sample ID: 680-118974-14

Date Collected: 11/12/15 00:00 **Matrix: Water**

Date Received: 11/13/15 08:30

Prep Type Total/NA	Batch Type Analysis	Batch Method 8260B	Run	Dil Factor	Initial Amount 5 mL	Final Amount 5 mL	Batch Number 410671	Prepared or Analyzed 11/17/15 12:17	Analyst CEJ	Lab TAL SAV	
	Instrumer	nt ID: CMSO2									

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

C +0 / # 200	-ORMATION	Shipment Method: Lab Colviter Shipment Tracking No:	Project #: 6-4300-5246	PM: Acusa Certchell	and a cetchell @ omecfuscon		2 O COMMENTS LABUSE	JALYSIS			680-1	5 X 5		hain o	f Cus	tody					. early	×	$\times \times \times$	XXX	Comments & Special Analytical Requirements:	0.0	2000	Custody Seal # LAB Log Number	TO CSXT WITH ORIGINAL COC TAL-6006 (0509)
	11404 P: 912-354-7858 F: 912-352-0165 on, 0H 44720 P: 330-497-9396 F: 330-497-0772	L 33634 P: 813-885-7427 F: 813-885-7049 32514 P: 850-474-1001 F: 850-478-2671 NY 14228 P: 716-691-2600 F: 716-961-7991 466 P: 708-534-5200 F: 708-534-5211	CONSULTANT INFORMATION	nec Foster Wheeler	elside Drive o	Tampa, FL 3360	Note 3 3 3 3 3 3 3 3	Pres. METHODS FOR ANALYSIS	epoo	LIQ = Liquid	ns of ex	1 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 ×	Matrix	Code	$\times \times $	XXXX	××××39 4	6WXXX	X X X M9	Sulvey X X X	SW XX	\times \times \times \times	X	XXXXM9	Date/Fine: & 07.	Date/Time:	Date/Time:	LAB USE: Custody Intact	AUST BE
LABORATORY INFORMATION	🔀 restAmerica Savannah - 5102 LaRoche Avenue, Savannah, GA 31404 - P: 912 🗖 TestAmerica North Canton - 4101 Shuffel Drive NW, North Canton, OH 44720	☐ TestAmerica Tampa - 6712 Benjamin Road, Suite 100, Tampa, FL 33634 P: 813-885-7427 F ☐ TestAmerica Pensacola - 3355 McLemore Drive, Pensacola, FL 32514 P: 850-474-1001 F: 8 ☐ TestAmerica Buffalo - 10 Hazelwood Drive, Suite 106, Amherst, NY 14228 P: 716-691-2600 ☐ TestAmerica Chicago - 2417 Bond Street, University Park, IL 60466 P: 708-534-5200 F: 708	Proj. State (State of Origin) $\mathcal{G}_{\mathcal{A}}$ CONSULTAN	Proj. City: Savanneh Company: Amec	Address	LWON: TBD City, State, Zip:	Preservative Codes: 3 = Sulfuric Acid	0 = No Preservatives 4 = Sodium Thiosulfate	1 = Hydrochloric Acid 5 = Sodium Hydroxide 2 = Nitric Acid 6 = Other	Matrix Codes: SO = Soil LIQ	GW = Groundwater \ \text{SL} = Sludge WW = Waste Water \ \text{Ol} = \text{Oil} \ Oil on the Collision of the Collisio	SW = Surface Water SOL = Other Solid	Sample Collection Filtered Type	Sampler Y or N	12 2015 0958 JJ N	11/12/2015 0930PG N G	2 /2015 1048 55 N G	12/2015 1030 PG N G	12/2015 1355 JT N G	11/12/2015/1300 PG N 6	11/12/2015 - JJ N C	12 2215 PG M G	0 N TS 515131513	0 N CC - Sez 21	5750 Received By: Like G	AK 30 Received By:	Received By:	Lab Remarks:	2/12
LA	CHAIN OF			5	inson Island		Standard 6-13 Days		Standard 14 Days Other CSN Standard 2:	Other Deliv:	GN EDD Required, Format: W	AD	Containers		111 4 51088111	22015 4 III	11122015 4 II	1 4 SIDE	11 H S10661	122015 4 III	11122015 4 III	2015 4 11	2015 27 11	2	Date/Time:	Date/Time: //	Date/Time:	Date/Time:	TORY WITH SAMPLES
		TRANSPORTATION	CSXT PROJECT INFORMATION	CSXT Project Number:	CSXT Project Name: Hatchinson	CSXT Contact: Som RE	Turnaround Time:	1 Day Rush	2 Day Rush 3 Day Rush	iverables:	CSXT Standard (Level II) Level III	SAMPI F INFORMATION		Sample Identification	EW-1-11123	PDMW-19P_111	PDMW-10R-11	TMW-4R_11122015	PDMW-JGT_11	PDMW-8R-11	DUP-01-1113	MW-3K-1112	TMW-1-11112	32,1112	Rejiroguihed By:	Retinquished/By:	Relinquished By:	Received By Laboratory:	ORIGINAL – RETURN TO LABORATORY WITH SAMPLES

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 680-118974-1 SDG Number: ENV0000120647/R9415575

Login Number: 118974 List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

Grouter: Menighter, marry: 2		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-118974-1 SDG: ENV0000120647/R9415575

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-16

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-125713-1

TestAmerica SDG: ENV0000123996/R9415575 Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 1075 Big Shanty Road, NW Suite 100 Kennesaw, Georgia 30144

Attn: Mr. Matthew Grostick

Authorized for release by: 6/2/2016 11:06:40 AM

Robert Bearden, Project Manager I (912)354-7858

robert.bearden@testamericainc.com

Designee for

Lisa Harvey, Project Manager II (912)354-7858 e.3221

lisa.harvey@testamericainc.com

.....Links

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

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ND PQL

QC

RER RL

RPD

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Quality Control Relative error ratio

Not detected at the reporting limit (or MDL or EDL if shown)

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-125713-1	PDMW-47	Water	05/25/16 13:05	05/26/16 13:48
680-125713-2	DUP-1	Water	05/25/16 12:00	05/26/16 13:48

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Job ID: 680-125713-1

Laboratory: TestAmerica Savannah

Narrative

Client: AMEC Foster Wheeler E & I, Inc Project: CSX GA, Hutchinson Island, VRP Report Number: 680-125713-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 05/26/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

AMMONIA

Samples PDMW-47 (680-125713-1) and DUP-1 (680-125713-2) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 06/01/2016.

Samples PDMW-47 (680-125713-1)[20X] and DUP-1 (680-125713-2)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID: PDMW-47

TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Lab Sample ID: 680-125713-1

Matrix: Water

Date Collected: 05/25/16 13:05 Date Received: 05/26/16 13:48

General Chemistry Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Ammonia 29 5.0 mg/L 06/01/16 09:10 20

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Lab Sample ID: 680-125713-2

Prepared

Matrix: Water

Dil Fac

20

Analyzed

06/01/16 09:10

Client Sample ID: DUP-1 Date Collected: 05/25/16 12:00

Date Received: 05/26/16 13:48

General Chemistry							
Analyte	Result	Qualifier	RL	MDL	Unit	D	
Ammonia	30		5.0		mg/L	_	

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Client Sample ID: Lab Control Sample

Limits

90 - 110

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Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-435556/2	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 435556

Analyte

Ammonia

Lab Sample ID: LCS 680-435556/1

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.25	U	0.25		mg/L			05/31/16 16:47	1

Matrix: Water							Prep 1	Type: Total/NA
Analysis Batch: 435556								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	 1.00	0.961		mg/L		96	90 - 110	

Lab Sample ID: LCSD 680-435556/4 Matrix: Water			Client Sample ID: Lab Control Sample Type:	
Analysis Batch: 435556				
	Spike	LCSD LCSD	%Rec.	RPD

Result Qualifier

0.960

Unit

mg/L

Added

1.00

 $\frac{\text{RPD}}{0} \quad \frac{\text{Limit}}{30}$

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

6

General Chemistry

Analysis Batch: 435556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-125713-1	PDMW-47	Total/NA	Water	350.1	
680-125713-2	DUP-1	Total/NA	Water	350.1	
LCS 680-435556/1	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-435556/4	Lab Control Sample Dup	Total/NA	Water	350.1	
MB 680-435556/2	Method Blank	Total/NA	Water	350.1	

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Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Client Sample ID: PDMW-47

Lab Sample ID: 680-125713-1

Matrix: Water

Date Collected: 05/25/16 13:05 Date Received: 05/26/16 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		20	2 mL	2 mL	435556	06/01/16 09:10	JME	TAL SAV
	Instrume	ent ID: KONELAB1								

Lab Sample ID: 680-125713-2

Matrix: Water

Client Sample ID: DUP-1 Date Collected: 05/25/16 12:00 Date Received: 05/26/16 13:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		20	2 mL	2 mL	435556	06/01/16 09:10	JME	TAL SAV
	Instrume	ent ID: KONELAB1								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

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Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 680-125713-1

SDG Number: ENV0000123996/R9415575

List Source: TestAmerica Savannah

Login Number: 125713 List Number: 1

Creator: White, Menica R

Creator: White, Menica R		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Savannah

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Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-125713-1 SDG: ENV0000123996/R9415575

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-16 *

* Certification renewal pending - certification considered valid.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404 Tel: (912)354-7858

TestAmerica Job ID: 680-127916-1

TestAmerica SDG: ENV0000123996 / R9415575 Client Project/Site: CSX GA, Hutchinson Island, VRP

For:

AMEC Foster Wheeler E & I, Inc 1075 Big Shanty Road, NW Suite 100 Kennesaw, Georgia 30144

Attn: Mr. Matthew Grostick

Sion Horey

Authorized for release by: 7/28/2016 9:15:20 AM

Lisa Harvey, Project Manager II (912)354-7858 e.3221 lisa.harvey@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

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Qualifiers

General Chemistry

ualifier Description	on
١	ualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
N A I	Minimum Lavel (District)

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Matrix

Water

Water

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Client Sample ID

PDMW-47

DUP-1

Lab Sample ID

680-127916-1

680-127916-2

TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

SDG: ENV0000123996 / R9415575

07/26/16 11:18 07/26/16 12:06

Collected	Received
07/26/16 11:18	07/26/16 12:06

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Case Narrative

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

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Job ID: 680-127916-1

Laboratory: TestAmerica Savannah

Narrative

Client: AMEC Foster Wheeler E & I, Inc Project: CSX GA, Hutchinson Island, VRP Report Number: 680-127916-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 07/26/2016; the samples arrived in good condition. The temperature of the coolers at receipt was 7.2 C.

AMMONIA

Samples PDMW-47 (680-127916-1) and DUP-1 (680-127916-2) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 07/27/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

Client Sample ID: PDMW-47

Date Collected: 07/26/16 11:18

Lab Sample ID: 680-127916-1

Matrix: Water

Date Received: 07/26/16 12:06 Matrix: Water

General ChemistryAnalyteResult AmmoniaQualifierRL QualifierMDL Unit mg/LD Prepared mg/LAnalyzed Dil Fac D7/27/16 13:54

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Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

Client Sample ID: DUP-1

Lab Sample ID: 680-127916-2

Matrix: Water

Date Collected: 07/26/16 11:18 Date Received: 07/26/16 12:06

General Chemistry							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	19	2.5	mg/L			07/27/16 14:03	10

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

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Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-443127/15

Client Sample ID: Method Blank
Matrix: Water

Prep Type: Total/NA

Analysis Batch: 443127

 Analyte
 Result Ammonia
 Qualifier Qualifier
 RL Ol.25
 MDL mg/L
 Unit Department
 D prepared Dil Fac Ol.7/27/16 13:44
 Analyzed Dil Fac Ol.7/27/16 13:44
 D prepared Dil Fac Ol.7/27/16 13:44

Lab Sample ID: LCS 680-443127/10

Matrix: Water

Analysis Batch: 443127

Spike

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Rec.

 Analyte
 Added Ammonia
 Result Qualifier 1.00
 Unit Message
 Description
 WRec Property
 Limits Property

Lab Sample ID: LCSD 680-443127/11

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 443127

Spike LCSD LCSD %Rec. **RPD** Added RPD Analyte Result Qualifier Unit D %Rec Limits Limit Ammonia 1.00 1.00 mg/L 100

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

2

General Chemistry

Analysis Batch: 443127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-127916-1	PDMW-47	Total/NA	Water	350.1	
680-127916-2	DUP-1	Total/NA	Water	350.1	
MB 680-443127/15	Method Blank	Total/NA	Water	350.1	
LCS 680-443127/10	Lab Control Sample	Total/NA	Water	350.1	
LCSD 680-443127/11	Lab Control Sample Dup	Total/NA	Water	350.1	

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Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

Lab Sample ID: 680-127916-1

Matrix: Water

Client Sample ID: PDMW-47 Date Collected: 07/26/16 11:18 Date Received: 07/26/16 12:06

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		10	2 mL	2 mL	443127	07/27/16 13:54	ALS	TAL SAV
	Instrument	ID: KONELAB1								

Lab Sample ID: 680-127916-2

Client Sample ID: DUP-1 Date Collected: 07/26/16 11:18 **Matrix: Water**

Date Received: 07/26/16 12:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		10	2 mL	2 mL	443127	07/27/16 14:03	ALS	TAL SAV
	Instrument	ID: KONELAB1								

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Method Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

Method Description

Nitrogen, Ammonia

TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

TAL SAV

Protocol Laboratory

MCAWW

1

Protocol References:

Method

350.1

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 680-127916-1

SDG Number: ENV0000123996 / R9415575

Login Number: 127916 List Source: TestAmerica Savannah

List Number: 1

Creator: White, Menica R

Creator. Writte, Menica IX		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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			LABORATORY	INFORMATION	NOL							* 000			
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ర	CSXT Project Name:	hson Island				Address:	1075	220	think.	Y RD H	Email:				
ပြိ	CSXT Contact:		LWON:			City, State, Zip:	PANASK	₩ 6	7	71510	W GK 30144 Phone-770-191-3400	70-12	1-3400 Fax:		
<u> </u>	Turnaround Time:	Standard 6-13 Days	Preservative Codes:	Sodes:	3 = Sulfur	Sulfuric Acid	Ž	Note					COMMENTS	LAB USE	JSE
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	Level III	✓ EDD Required, Format:	WW = Waste Water	Vater Water	OI = Oil SOL = Other Solid	ner Solid			-A					,	
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J ō	RIGINAL – RETURINTO LABOR	- RETURNTO LABORATORY WITH SAMPLES	18:08					OANI	ICE MUST	BE SUBMIT	INVOICE MUST BE SUBMITTED TO CSXT WITH ORIGINAL COC	T WITH ORI	GINAL COC	TAL	TAL-6006 (0509)

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc Project/Site: CSX GA, Hutchinson Island, VRP

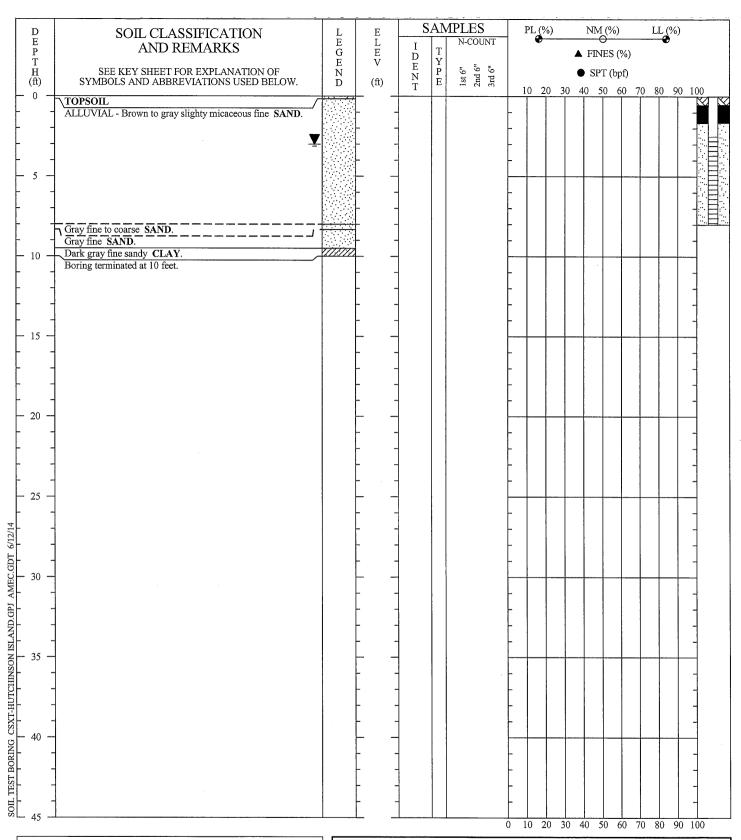
TestAmerica Job ID: 680-127916-1 SDG: ENV0000123996 / R9415575

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-17

APPENDIX B BORING LOGS



DRILLER: Geolab EQUIPMENT: Geoprobe

METHOD: Direct Push/Hollow Stem Auger

HOLE DIA.: 8 inches

REMARKS: Groundwater monitoring well installed. Stabilized water

depth 3.01 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

BORING NO.: PDMW-46

PROJECT: CSXT - Hutchinson Island

LOCATION: Savannah, Georgia

DRILLED: June 2, 2014

PROJECT NO.: 6-4300-5240 PAGE 1 OF 1



D	SOIL CLASSIFICATION	L	E L	S	ΑN	IPLES	Ī	PL (%	%)		NM C	(%)]	L (%)	
E P	AND REMARKS	E G	L E V	I	Т	N-COUNT		•				ES (%)		-æ	
T H (ft)	SEE KEY SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS USED BELOW.	E N		I D E N T	T Y P E	1st 6" 2nd 6" 3rd 6"						(bpf)			
- (π) - 0 -	SYMBOLS AND ABBREVIATIONS USED BELOW. ALLUVIAL - Tan medium SAND.	D	(ft)	T	E	1s 2n 3r		10 2	20 30	0 40) 5(60	70	80 90	100
-	ALLOVIAL - Tan medium SAND.			-			-								-
	Gray fine to medium SAND.			1			-								
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 	Gray brown fine sandy CLAY.			-			-								十目
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DRILLER: Geolab

EQUIPMENT: Geoprobe METHOD:

Direct Push/Hollow Stem Auger

HOLE DIA.: REMARKS:

Groundwater monitoring well installed. Stabilized water

depth 3.52 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

BORING NO.: PDMW-47

PROJECT: CSXT - Hutchinson Island

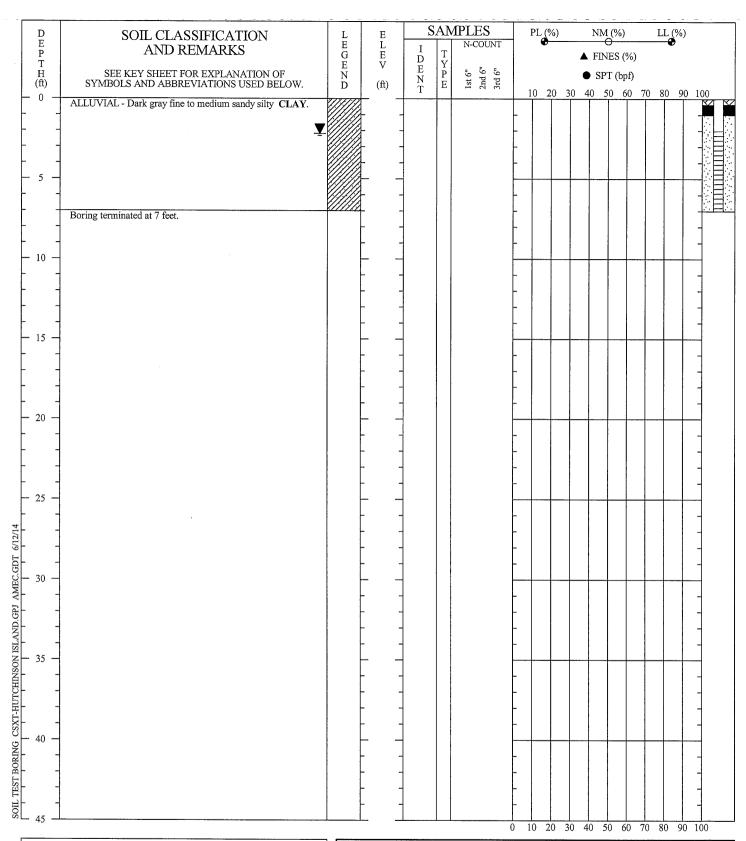
LOCATION: Savannah, Georgia

June 2, 2014 DRILLED:

PROJECT NO.: 6-4300-5240

PAGE 1 OF 1





DRILLER: Geolab
EQUIPMENT: Hand Auger
METHOD: Hand Auger

HOLE DIA.:

REMARKS: Groundwater monitoring well installed. Stabilized water

depth 2.19 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

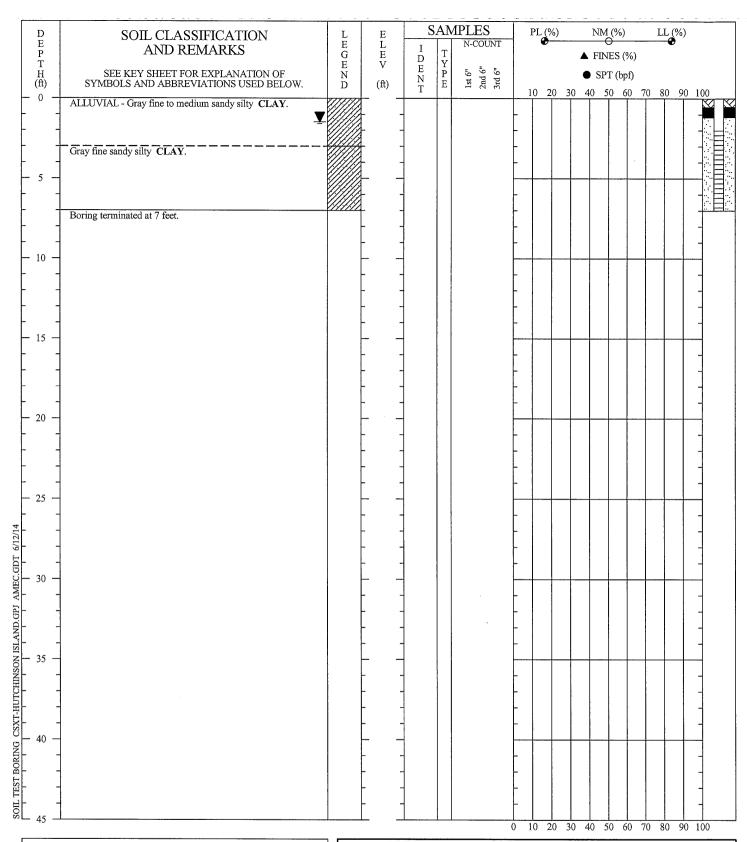
BORING NO.: PDMW-48

PROJECT: CSXT - Hutchinson Island **LOCATION:** Savannah, Georgia

DRILLED: June 3, 2014 **PROJECT NO.:** 6-4300-5240

ECT NO.: 6-4300-5240 PAGE 1 OF 1





DRILLER: Geolab
EQUIPMENT: Hand Auger
METHOD: Hand Auger
HOLE DIA.: 6 inches

REMARKS: Groundwater monitoring well installed. Stabilized water

depth 1.47 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

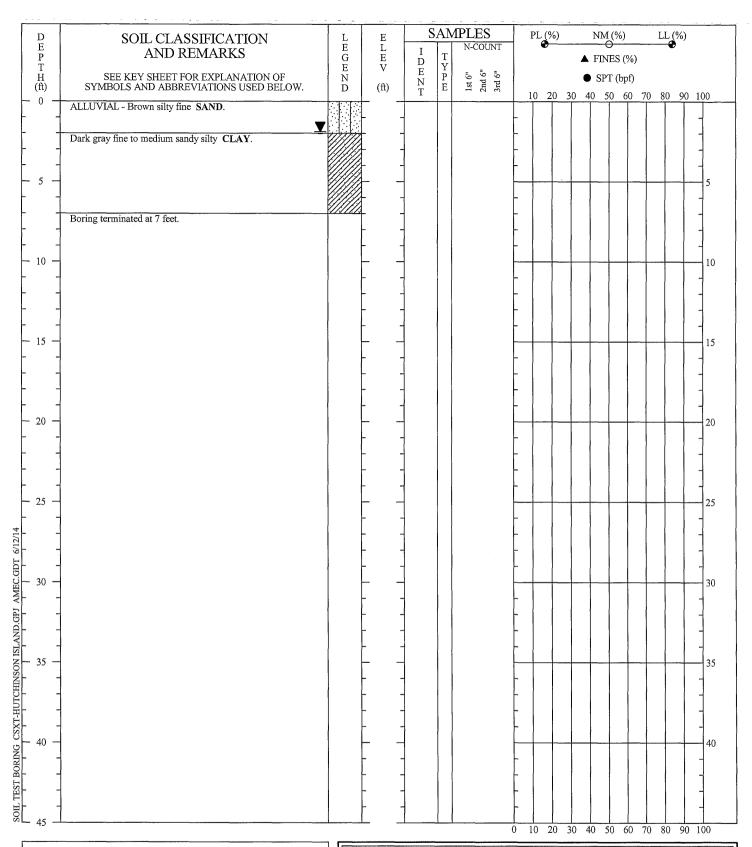
BORING NO.: PDMW-49

PROJECT: CSXT - Hutchinson Island **LOCATION:** Savannah, Georgia

DRILLED: June 3, 2014 **PROJECT NO.:** 6-4300-5240

PAGE 1 OF 1





DRILLER: Geolab EQUIPMENT: Hand Auger METHOD: Hand Auger

HOLE DIA.: 6 inches REMARKS: Groundwater monitoring well installed. Stabilized water

depth 1.90 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BEWEEN STRATA ARE APPROXIMATE TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

BORING NO.: PDMW-50

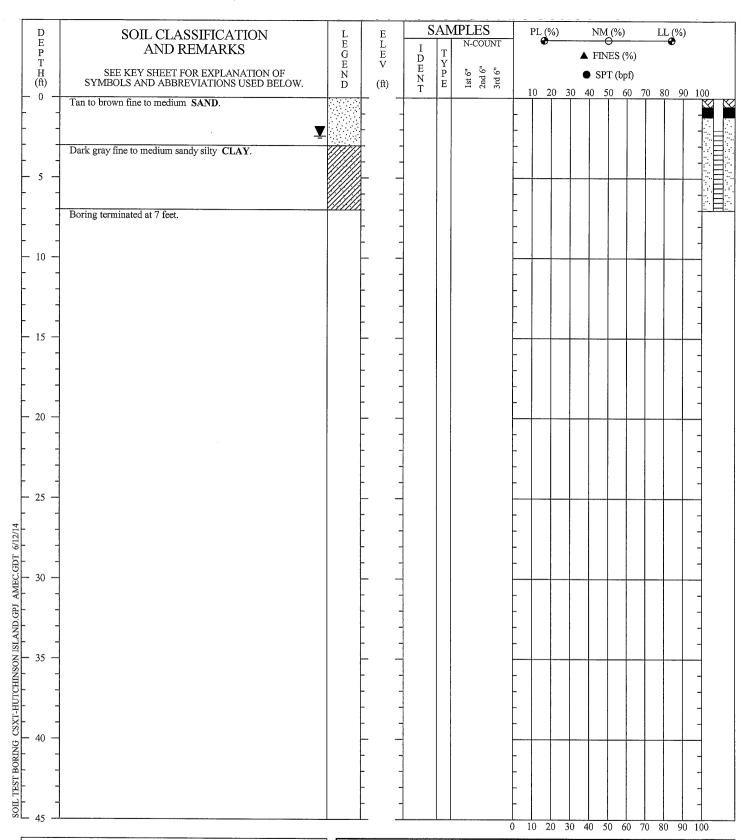
PROJECT: CSXT - Hutchinson Island

LOCATION: Savannah, Georgia

DRILLED: June 3, 2014

PROJECT NO.: 6-4300-5240 PAGE 1 OF 1





DRILLER: Geolab
EQUIPMENT: Hand Auger
METHOD: Hand Auger
HOLE DIA.: 6 inches

REMARKS: Groundwater monitoring well installed. Stabilized water

depth 2.41 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

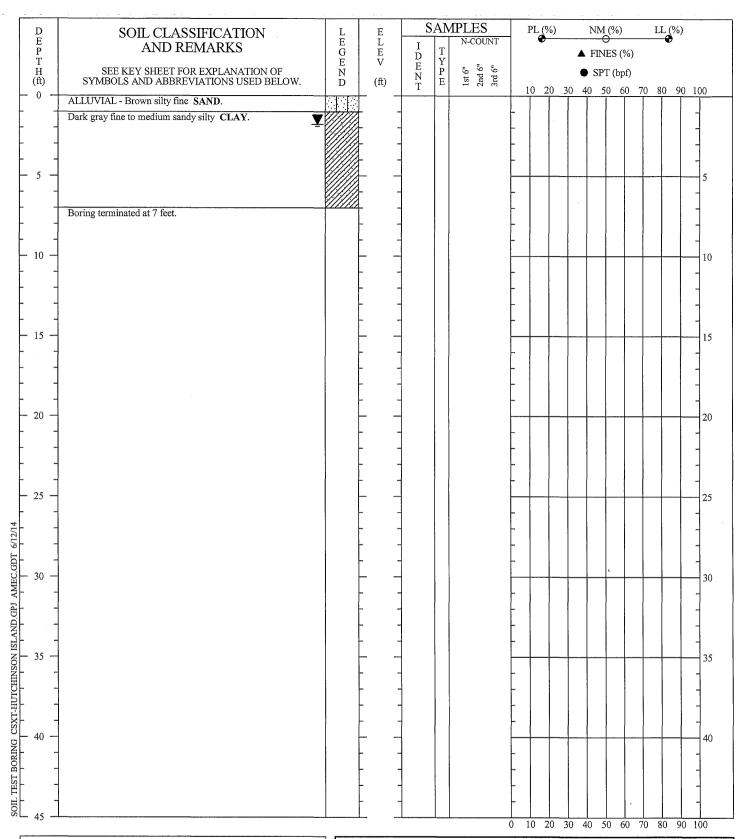
BORING NO.: PDMW-51

PROJECT: CSXT - Hutchinson Island

LOCATION: Savannah, Georgia DRILLED: June 3, 2014

PROJECT NO.: 6-4300-5240 PAGE 1 OF 1





DRILLER: Geolab
EQUIPMENT: Hand Auger
METHOD: Hand Auger
HOLE DIA.: 6 inches

REMARKS: Groundwater monitoring well installed. Stabilized water

depth 1.79 feet.

Prepared by: S. Foley Reviewed by: Chuck Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

BORING NO.: PDMW-52

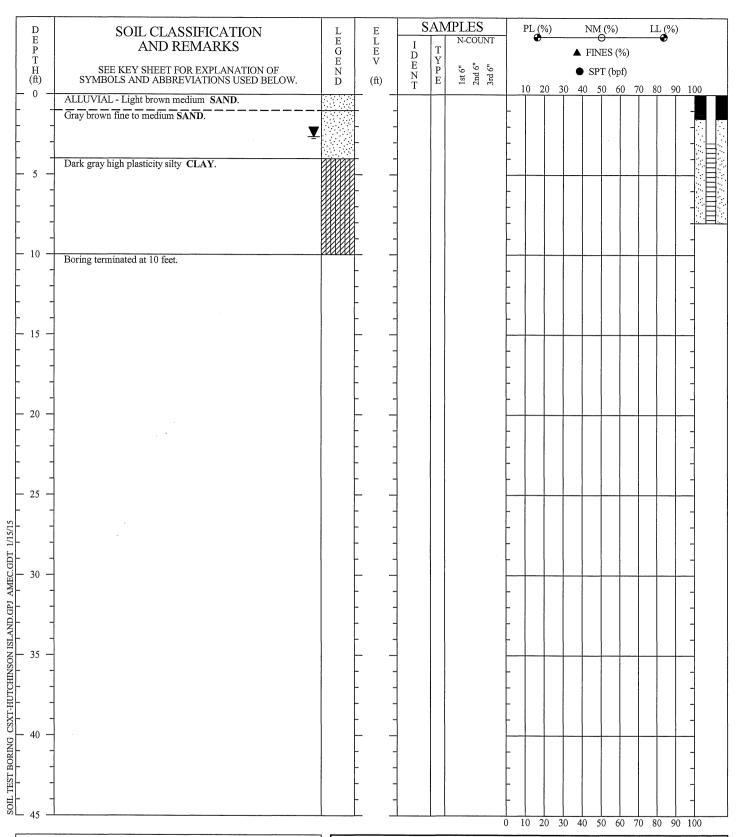
PROJECT: CSXT - Hutchinson Island

LOCATION: Savannah, Georgia **DRILLED:** June 3, 2014

PROJECT NO.: 6-4300-5240

PAGE 1 OF 1





DRILLER: Geolab EQUIPMENT: Geoprobe METHOD: Direct Push/HSA

HOLE DIA.: 2 inches/8 inches REMARKS:

Groundwater monitoring well installed. Stablized

groundwater depth 2.63 feet.

Prepared by: S. Foley Reviewed by: C. Ferry

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BEWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

BORING NO.: PDMW-53

PROJECT NO.:

PROJECT: CSXT - Hutchinson Island

LOCATION: Savannah, Georgia **DRILLED:** October 31, 2014 6-4300-5240

PAGE 1 OF 1



APPENDIX C BIOCHLOR OUTPUT SHEETS

Table C-1 – Summary of Biochlor Input Parameters

		V	alue	
Data Type	Parameter	Northern Plume	Southern Plume	Source of Data
Hydrogeology	Hydraulic Conductivity	7.8 x 10 ⁻⁴ cm/sec	3 x 10 ⁻³ cm/sec	Slug Test Results, AMEC Modified Corrective Action Plan, dated June 6, 2009.
	Hydraulic Gradient	0.0146	0.0015	Static Water Level Measurements 11/3/14
	Effective Porosity	0.25	0.25	Estimated based on typical sandy soil
Dispersion	Longitudinal Dispersivity Transverse Dispersivity Vertical Dispersivity	30 0.1 1x10 ⁻⁹⁹	60 0.1 1x10 ⁻⁹⁹	10% of estimated plume length 0.1 x longitudinal dispersivity Biochlor recommended value
Adsorption	Retardation Factor	1.1	1.1	Calculated from R=1+K _{oc} x f _{oc} x ρ/n for northern and southern plumes.
	Aquifer Matrix Density	1.7 gm/cm ³	1.7 gm/cm ³	Estimated based on typical density of sandy soil
	Foc	0.001	0.001	Default value
	Koc	14	14	Literature value
Biotransformation	Biotransformation Rate Coefficient	0.693	0.21	Based on calibration to field data using 40-year simulation time (release of ammonia assumed in the 1970s). Started with literature values (Buss, S.R., Herbert, A.W., Morgan, P., & Thornton, S.F., 2003) and adjusted model to fit field data.
General	Modeled Area Length	200	600	Northern plume modeled from TMW-1 to PDMW-49, located adjacent to drainage canal. Southern plume modeled from EW-1 to PDMW-30P.
	Modeled Area Width	300	180	Modeled area widths were estimated based on location of 100 mg/L isopleth.
	Simulation Time	150	150	Simulation time from estimated release to point at which ammonia plume begins to recede.
Source Data	Source Thickness, ft.	10	10	From monitoring well boring logs.
	Source Width, ft.	300	100	Modeled as a single-plane source based on location of 100 mg/L isopleth.
	Source Concentrations, mg/L	18000	5000	TW-1 data represents the highest concentration detected to date. EW-1 initial concentration estimated based on current concentration and estimated release date.

Table C-2 - Model Sensitivity Analysis; Calculated for May 2015 at PDMW-49

	Hydraulic Conductivi	ity (Raseline =	7.8 v 10 ⁻⁴ cm/sec)					
Constituent	Tryarauno oonaactivi		tions (mg/L)					
Constituent	2x Baseline	Baseline	0.5xBaseline	Observed				
NH ₃	296	10.7	0.001	0.63				
11113	Hydraulic Gra			0.03				
Constituent	Hydraulic Gra	-	<u> </u>					
Constituent	2x Baseline	Baseline	tions (mg/L) 0.5x Baseline	Observed				
NH ₃	2x Baseline 296	10.7	0.001	0.63				
INF13		rosity (Baselir		0.03				
Constituent	Ellective For		tions (mg/L)					
Constituent	1.2x Baseline	Baseline	0.8x Baseline	Observed				
NH ₃	1.2X Baseline 1.85	10.7	49.8	0.63				
INF13	Longitudinal Disp			0.03				
Constituent	Longitudinai Disp		•					
Constituent	1.5x Baseline	Baseline	tions (mg/L) 0.5x Baseline	Observed				
NH ₃	22.7	10.7	2.3	0.63				
	erse Dispersivity (Bas							
Constituent	erse Dispersivity (bas			vity)				
Constituent	Ov Deceline		tions (mg/L) 0.5x Baseline	Observed				
NII I	2x Baseline	Baseline	10.7	Observed				
NH ₃	10.7	10.7		0.63				
Constituent	Constituent Concentrations (mg/L)							
Constituent	4. Ev. Deceline		` • ,	Observed				
N 11.1	1.5x Baseline	Baseline	0.5x Baseline	Observed				
NH ₃	0.5	10.7	14.1	0.63				
0	Aquifer Matrix Der							
Constituent	4.0. D		tions (mg/L)					
NII I	1.2x Baseline	Baseline	0.90x Baseline	Observed				
NH ₃	10.6	10.7	10.7	0.63				
0	Foc (E	Baseline = 0.00						
Constituent	4.5	1	tions (mg/L)					
	1.5x Baseline	Baseline	0.85x Baseline	Observed				
NH ₃	10.7	10.7	10.7	0.63				
0	Koc	(Baseline = 14	•					
Constituent	4.5 D P		tions (mg/L)	Observed				
NII I	1.5x Baseline	Baseline		Observed				
NH ₃	10.7	10.7	0.03	0.63				
On-stite of	Biotransformation Ra		•					
Constituent	4.5 D P		tions (mg/L)	Observed				
N 11 2	1.5x Baseline	Baseline	0.5x Baseline	Observed				
NH ₃	3.0	10.7	114	0.63				
0	First Order Decay	•	•					
Constituent	4.5 D P		tions (mg/L)	Observed				
	1.5x Baseline	Baseline	0.5x Baseline	Observed				
NH ₃	1,632	3,634	8,087	3,600				
0	Source Wid	th (Baseline =	,					
Constituent	4.5. D. "		tions (mg/L)					
	1.5x Baseline	Baseline	0.85x Baseline	Observed				
NH ₃	10.7	10.7	10.7	0.63				

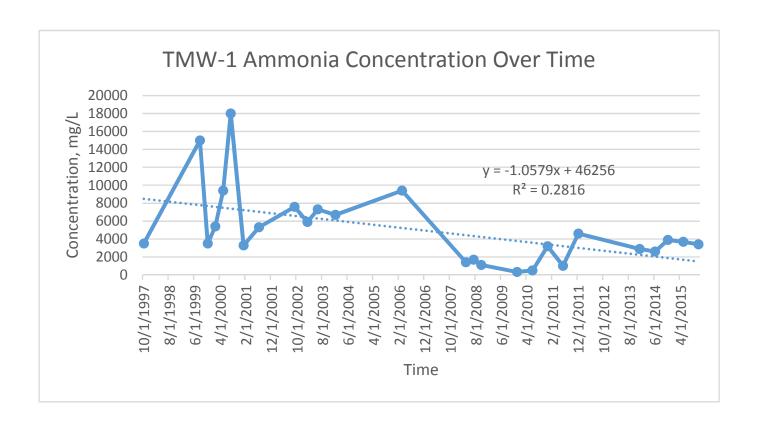
Table C-3 - Model sensitivity analysis; calculated for May 2015 at PDMW-30P

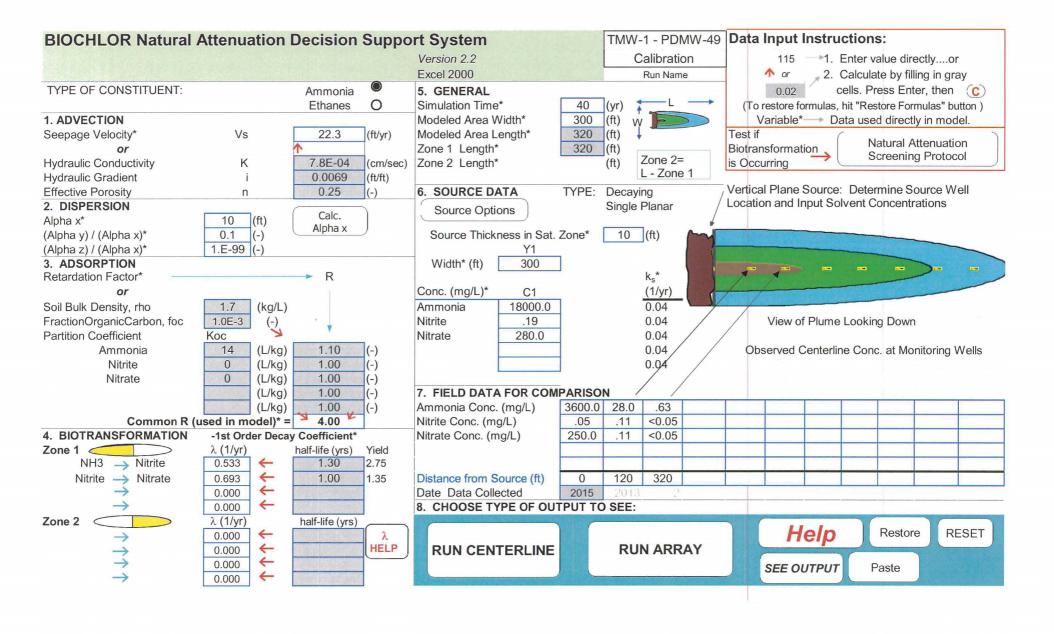
	Hydraulic Conductivi	ity (Baseline -	$3.0 \times 10^{-3} \text{ cm/sec}$						
Constituent	Hydraulic Collddciiv		•						
Constituent	2x Baseline		ions (mg/L) 0.5xBaseline*	Observed					
NH ₃	38.8	Baseline 6.3	0.5XBaSelliTe 0.2	Observed 1.1					
INIT3	Hydraulic Grad			1.1					
Constituent	Hydraulic Grad	•	•						
Constituent	Ov Deceline	1	ions (mg/L)	Observed					
NII I	2x Baseline 38.8	Baseline 6.3	0.5x Baseline 0.2	Observed					
NH ₃				1.1					
Constituent	Effective Por	rosity (Baselin							
Constituent	1.2x Baseline	Baseline	ions (mg/L) 0.8x Baseline	Observed					
NILI.	<u> </u>	+		Observed					
NH ₃	3.12	6.3	12.8	1.1					
Constituent	Longitudinal Disp		•						
Constituent	1.5x Baseline	Baseline	ions (mg/L) 0.5x Baseline	Observed					
NILL		+		Observed					
NH ₃	5.5 erse Dispersivity (Bas	6.3	7.7	1.1					
Constituent	erse Dispersivity (Bas			vity)					
Constituent	Ov Bosolino	Baseline	ions (mg/L) 0.5x Baseline	Observed					
NILI.	2x Baseline 6.3	+	6.3	Observed					
NH ₃		6.3		1.1					
Constituent	Constituent Retardation Factor (Baseline = 2.0) Concentrations (mg/L)								
Constituent	4 Ev Docalina		` • /	Observed					
NILL	1.5x Baseline 4.8	Baseline 6.3	0.5x Baseline	Observed					
NH ₃			9.9	1.1					
Constituent	Aquifer Matrix Der								
Constituent	1.2x Baseline	Baseline	ions (mg/L) 0.90x Baseline	Observed					
NH ₃	<u> </u>	6.3	6.4	Observed					
IN⊓3	6.3			1.1					
	Foc (Baseline = 0.001)								
Constituent	Foc (E		•						
Constituent		Concentrat	ions (mg/L)	Observed					
	1.5x Baseline	Concentrat Baseline	ions (mg/L) 0.85x Baseline	Observed					
Constituent NH ₃	1.5x Baseline 6.3	Concentrat Baseline 6.3	ions (mg/L) 0.85x Baseline 6.3	Observed 1.1					
NH ₃	1.5x Baseline 6.3	Concentrat Baseline 6.3 (Baseline = 14	ions (mg/L) 0.85x Baseline 6.3						
	1.5x Baseline 6.3	Concentrat Baseline 6.3 (Baseline = 14 Concentrat	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L)	1.1					
NH₃ Constituent	1.5x Baseline 6.3 Koc 1.5x Baseline	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline	1.1 Observed					
NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8	1.1					
NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693)	1.1 Observed					
NH₃ Constituent	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L)	1.1 Observed 1.1					
NH ₃ Constituent NH ₃ Constituent	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline	1.1 Observed 1.1 Observed					
NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6	1.1 Observed 1.1					
NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 7 Constant (Ba	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 iseline = 0.04)	1.1 Observed 1.1 Observed					
NH ₃ Constituent NH ₃ Constituent	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 r Constant (Baseline) Concentrat	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 iseline = 0.04) ions (mg/L)	Observed 1.1 Observed 1.1 Observed 1.1					
NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay 1.5x Baseline	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 r Constant (Ba Concentrat Baseline Baseline Baseline Baseline	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 aseline = 0.04) ions (mg/L) 0.5x Baseline	1.1 Observed 1.1 Observed 1.1 Observed					
NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay 1.5x Baseline 4.0	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 / Constant (Baseline Concentrat Baseline 271	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 aseline = 0.04) ions (mg/L) 0.5x Baseline 557	Observed 1.1 Observed 1.1 Observed 1.1					
NH ₃ Constituent NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay 1.5x Baseline 4.0	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 / Constant (Ba Concentrat Baseline 271 ath (Baseline =	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 iseline = 0.04) ions (mg/L) 0.5x Baseline 557 : 300 Ft)	1.1 Observed 1.1 Observed 1.1 Observed					
NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay 1.5x Baseline 4.0 Source Wid	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 Concentrat Baseline 6.3 Concentrat Baseline 271 Ath (Baseline = Concentrat	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 iseline = 0.04) ions (mg/L) 0.5x Baseline 557 300 Ft) ions (mg/L)	Observed 1.1 Observed 1.1 Observed 270					
NH ₃ Constituent NH ₃ Constituent NH ₃ Constituent NH ₃	1.5x Baseline 6.3 Koc 1.5x Baseline 3.0 Biotransformation Ra 1.5x Baseline 0.9 First Order Decay 1.5x Baseline 4.0	Concentrat Baseline 6.3 (Baseline = 14 Concentrat Baseline 6.3 ate Constant (Concentrat Baseline 6.3 / Constant (Ba Concentrat Baseline 271 ath (Baseline =	ions (mg/L) 0.85x Baseline 6.3 ions (mg/L) 0.5x Baseline 2.8 Baseline = 0.693) ions (mg/L) 0.5x Baseline 51.6 iseline = 0.04) ions (mg/L) 0.5x Baseline 557 : 300 Ft)	1.1 Observed 1.1 Observed 1.1 Observed					

CSXT-Hutchinson Island Savannah, Georgia

Table C-4 – Summary of Predicted vs. Observed COC Concentrations, 2015

Location	Sampling Date	Amn	nonia	Nit	rite	Niti	rate	Comments
		Predicted	Observed	Predicted	Observed	Predicted	Observed	
TMW-1	11/2015	3,634	3,600	0.04	<10	56.5	250	Source Area Well
PDMW-48	11/2015	557	28	0.09	0.11	133	0.11	
PDMW-49	11/2015	10.6	0.63	0.015	<0.05	21.5	<0.05	POD Well
EW-1	11/2015	271.3	270	0.0	<0.05	0.07	<0.05	Source Area Well
PDMW-10R	11/2015	87.7	7.9	0.0	<0.05	0.086	<0.05	
PDMW-46	11/2015	6.3	1.1	0.0	<0.05	0.13	0.073	POD Well

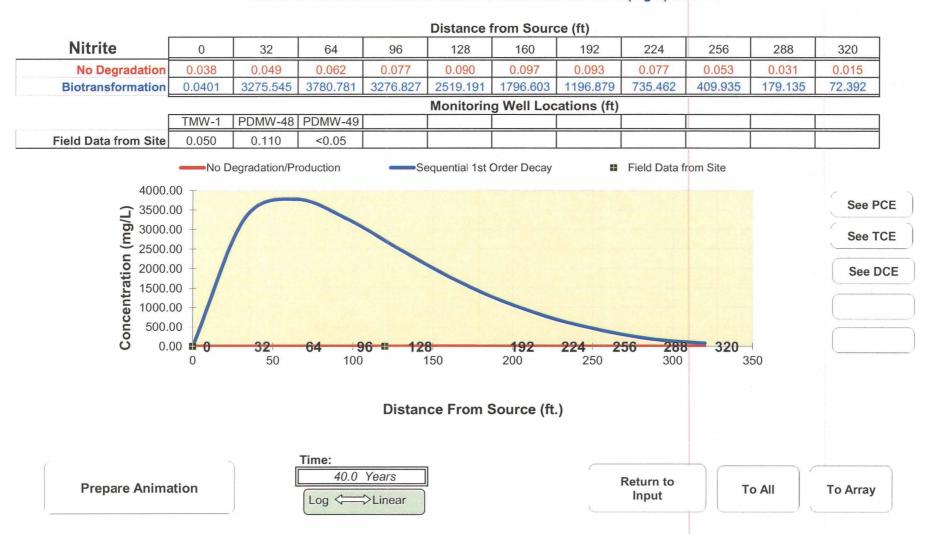




AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

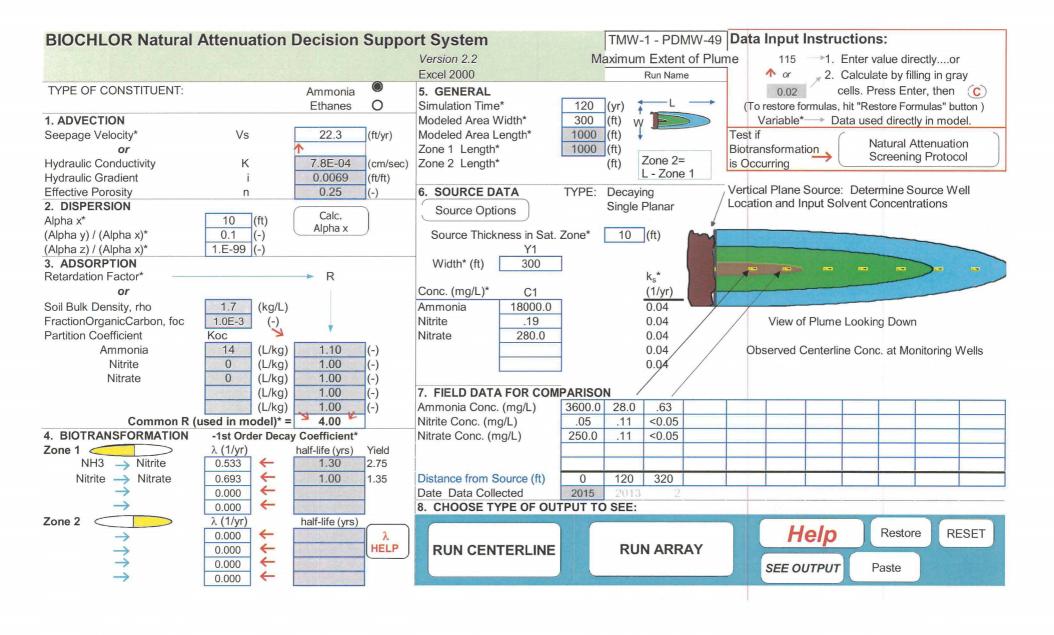
Distance from Source (ft) **Ammonia** 160 224 256 288 320 0 32 64 96 128 192 9232.710 8826.700 5052.096 2298.801 No Degradation 4651.756 5900.108 7297.250 3634.138 8567.835 7273.109 1055.458 3634.1368 344.230 207.378 118.792 62.268 26.958 10.659 Biotransformation 2276.674 1426.107 892.701 557.117 Monitoring Well Locations (ft) TMW-1 PDMW-48 PDMW-49 Field Data from Site 3600.000 28.000 0.630 No Degradation/Production Sequential 1st Order Decay ■ Field Data from Site 10000.00 See PCE 9000.00 192 Concentration (mg/L) 8000.00 224 See TCE 7000.00 6000.00 5000.00 256 See DCE 4000.00 3000.00 288 2000.00 320 1000.00 0.00 100 0 50 150 200 250 350 300 **Distance From Source (ft.)** Time: 40.0 Years Return to **Prepare Animation** To All To Array Input Log ⇐⇒>Linear

NITRITE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

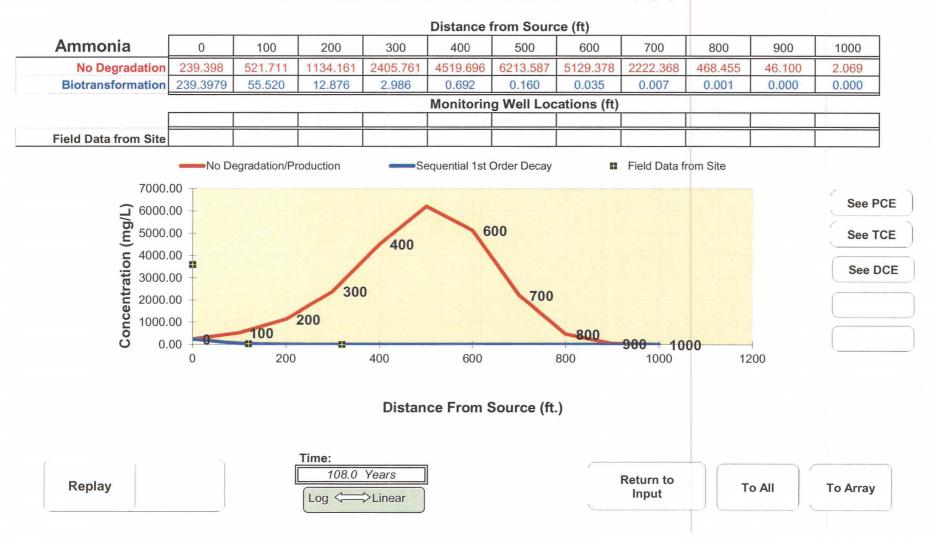


NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

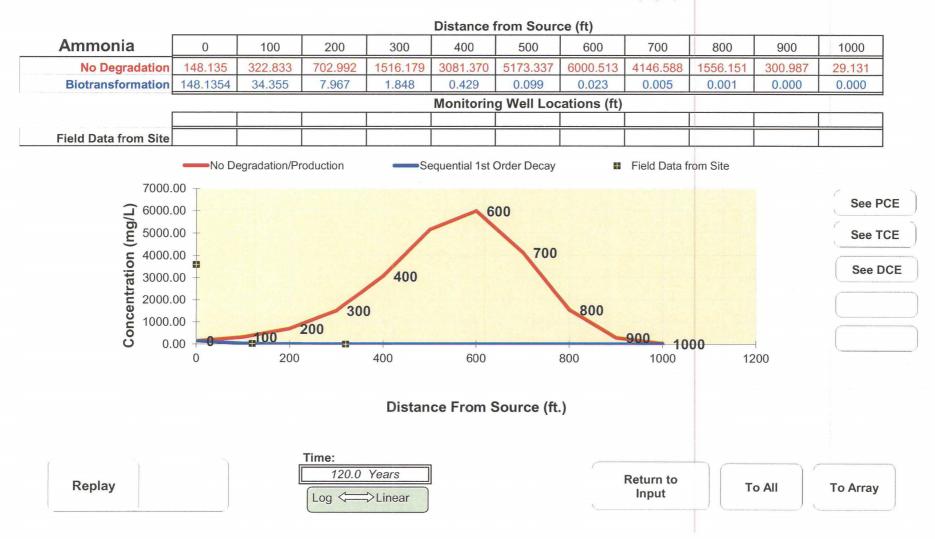
Distance from Source (ft) **Nitrate** 0 32 64 96 128 160 192 224 256 288 320 No Degradation 56.531 133.277 143.620 137.304 113.137 78.588 45.289 21.417 72.361 91.779 113.513 11597.535 | 19466.786 | 26472.280 | 30716.822 | 30520.873 | 25680.770 | 18049.985 | 10512.056 56.5316 4467.933 4995.486 **Biotransformation** Monitoring Well Locations (ft) PDMW-48 PDMW-49 TMW-1 Field Data from Site 250.000 0.110 < 0.05 No Degradation/Production Sequential 1st Order Decay Field Data from Site 35000.00 See PCE **3**0000.00 <u>\$</u>25000.00 See TCE See DCE 288 320 250 350 0 50 100 150 200 300 **Distance From Source (ft.)** Time: 40.0 Years Return to **Prepare Animation** To All To Array Input Log \Linear



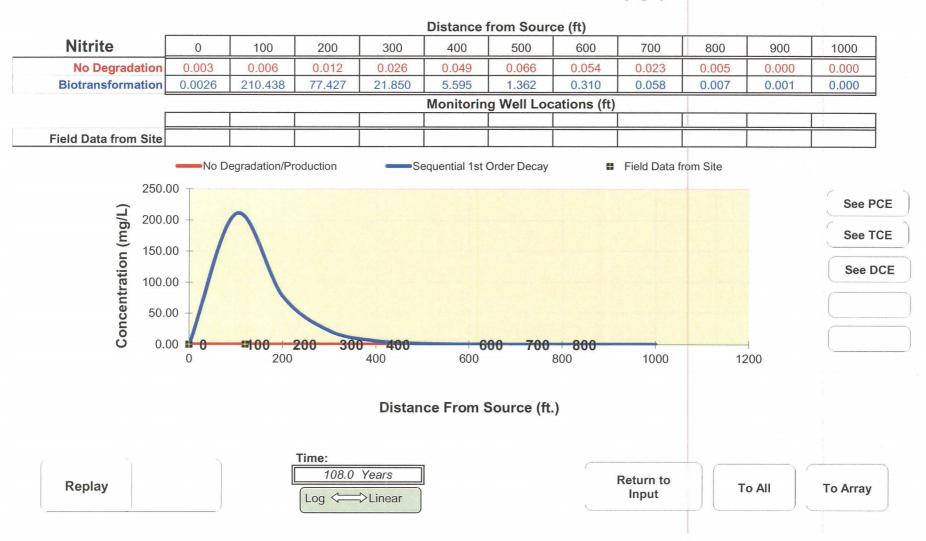
AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



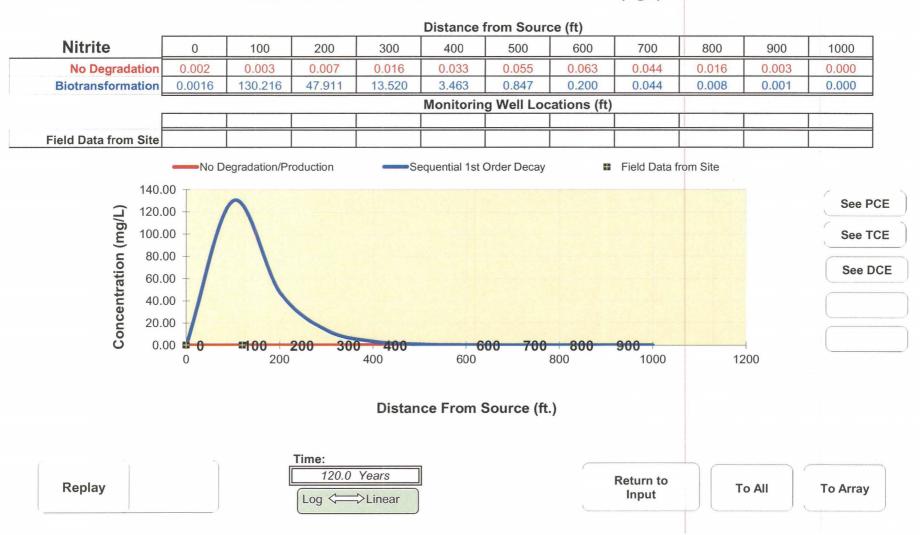
AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



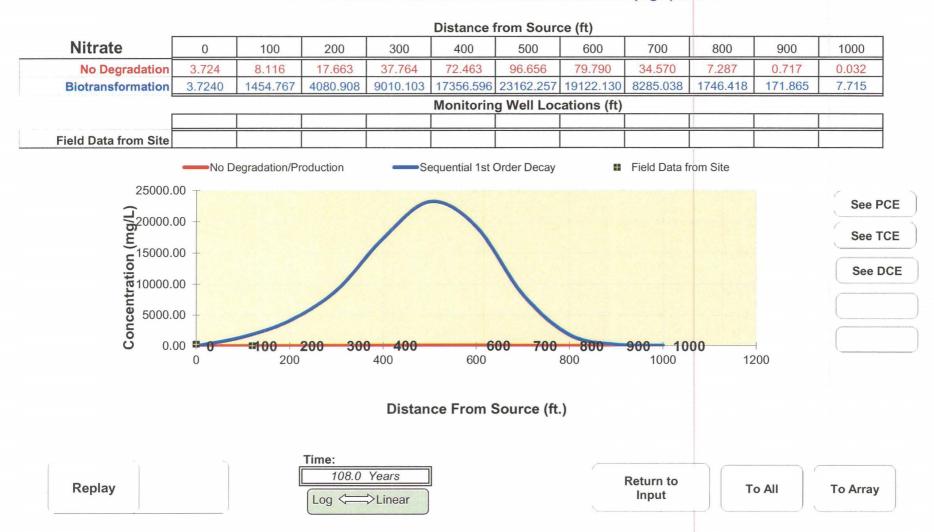
NITRITE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



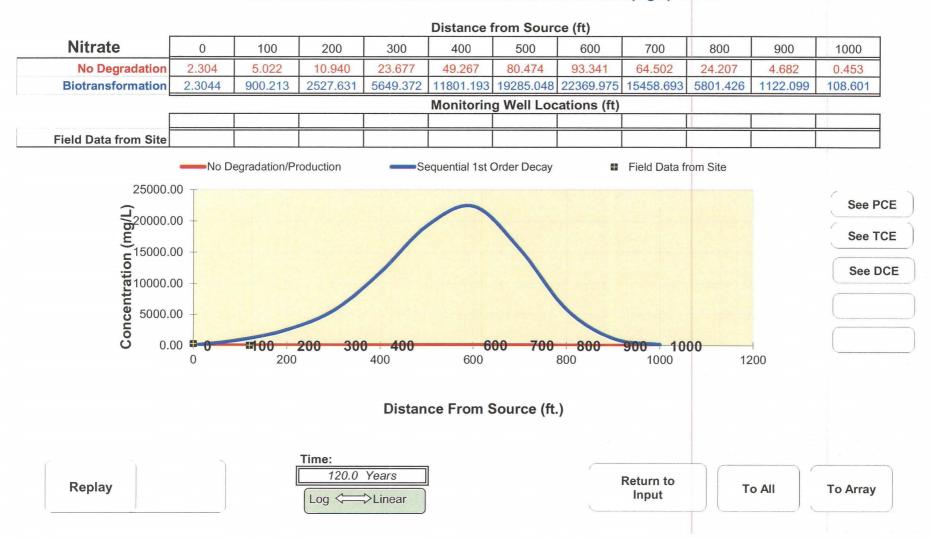
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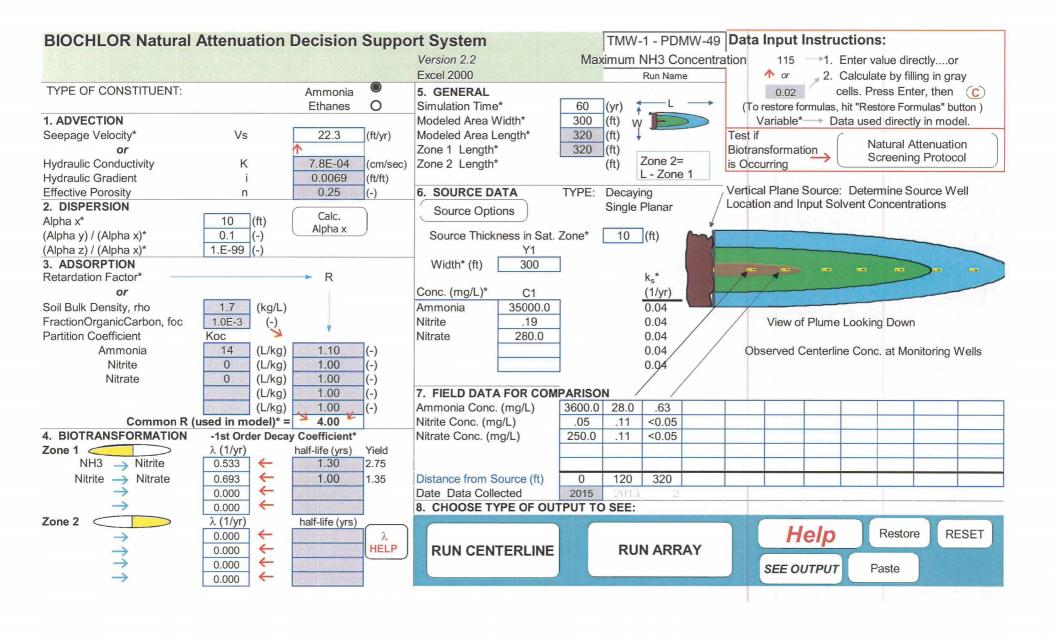


NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

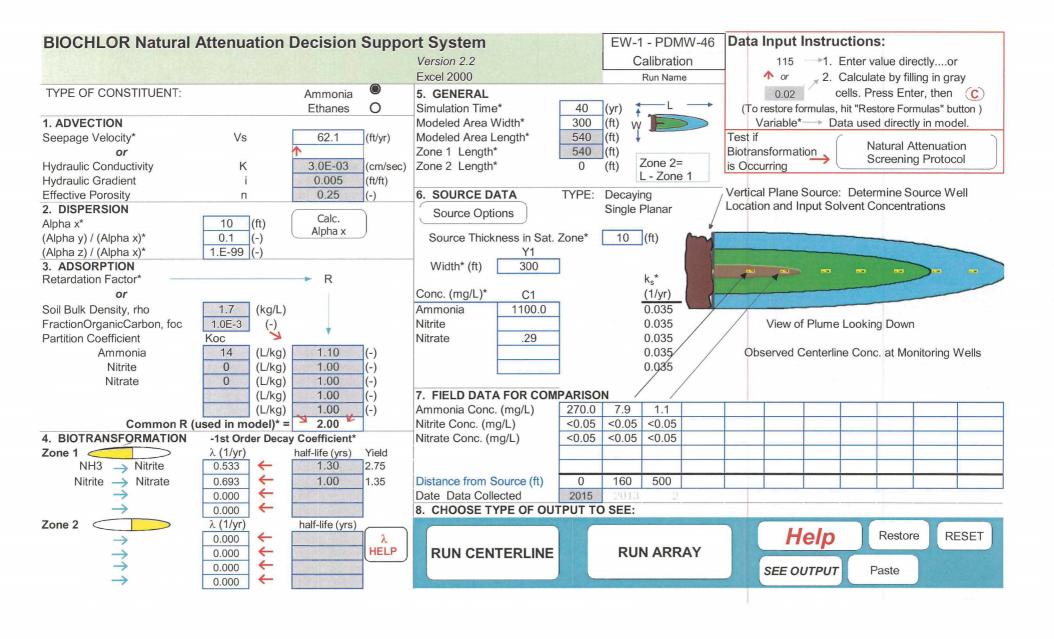


NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

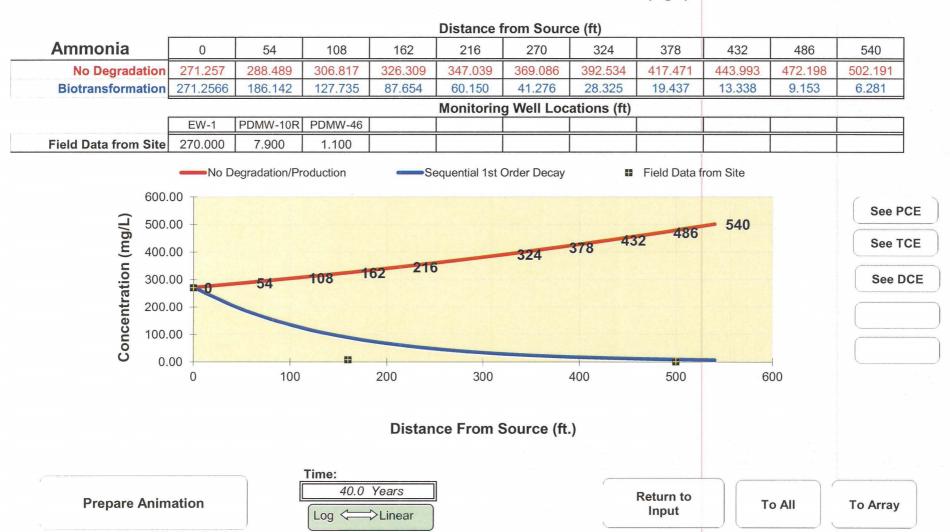




AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0 Distance from Source (ft) **Ammonia** 32 64 0 96 128 160 192 224 256 288 320 15067.535 No Degradation 4036.380 5176.958 6628.305 8439.385 12938.772 16374.485 16258.965 12550.057 10597.125 9609.353 Biotransformation 4036.3786 2528.695 621.629 389.163 243.159 1584.162 992.413 151.077 92.827 54.159 30.512 **Monitoring Well Locations (ft)** Field Data from Site No Degradation/Production Sequential 1st Order Decay Field Data from Site 18000.00 16000.00 14000.00 See PCE 256 192 288 See TCE £12000.00 0.000 Country (10000.00 country (1000.00 128 320 See DCE 4000.00 50 200 0 100 150 250 300 350 Distance From Source (ft.) Time: 54.0 Years Return to Replay To All To Array Input Log ⇐⇒ Linear



AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



NITRITE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0 Distance from Source (ft) **Nitrite** 0 54 108 162 216 270 324 378 432 486 540 No Degradation 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Biotransformation 209.858 170.459 133.074 0.0001 192.575 249.384 242.502 101.121 75.359 55.346 40.191 **Monitoring Well Locations (ft)** PDMW-46 PDMW-10R EW-1 Field Data from Site < 0.05 < 0.05 < 0.05 No Degradation/Production Sequential 1st Order Decay Field Data from Site 300.00 See PCE Concentration (mg/L) 250.00 See TCE 200.00 150.00 See DCE 100.00 50.00 0.00 200 300 100 400 500 600 **Distance From Source (ft.)**

Return to

Input

To All

To Array

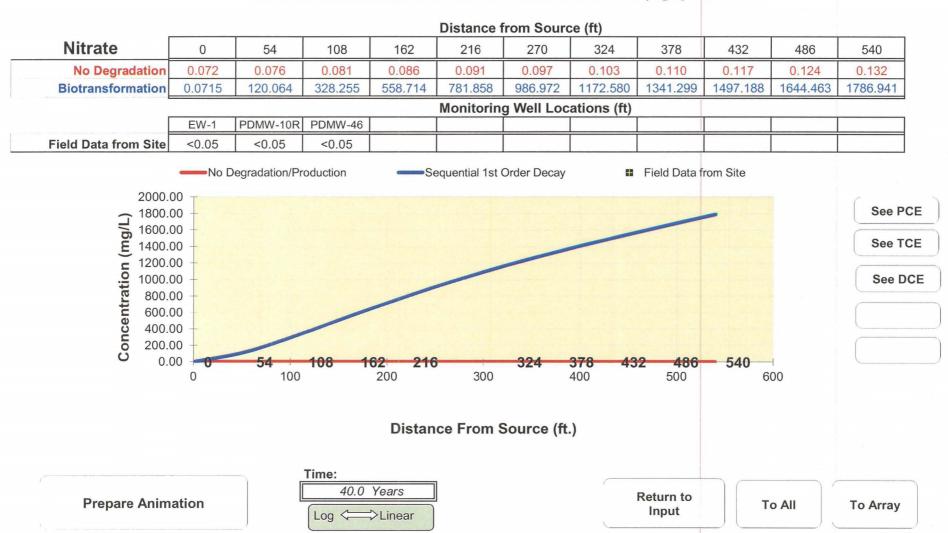
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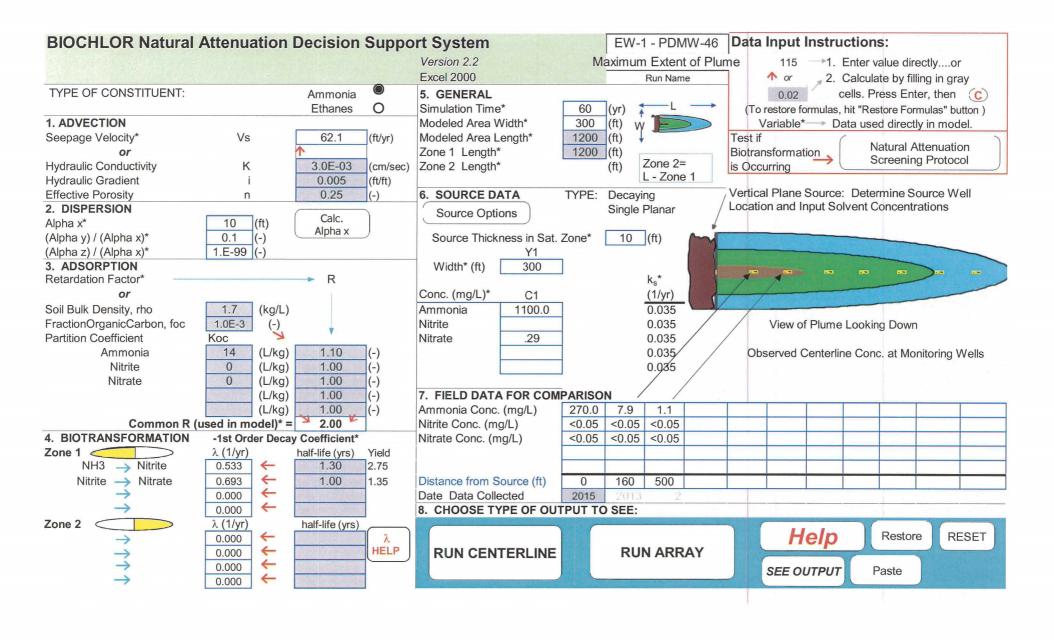
Prepare Animation

40.0 Years

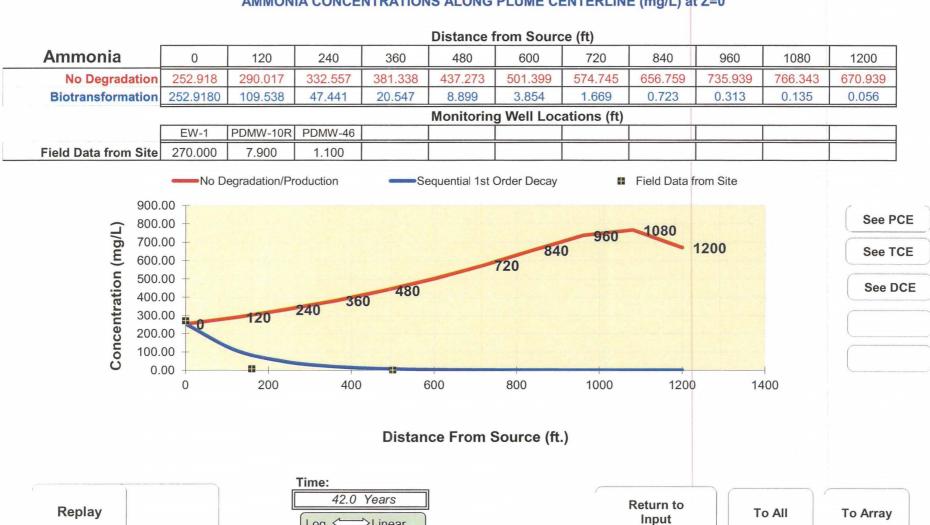
Log ⇐⇒>Linear

NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



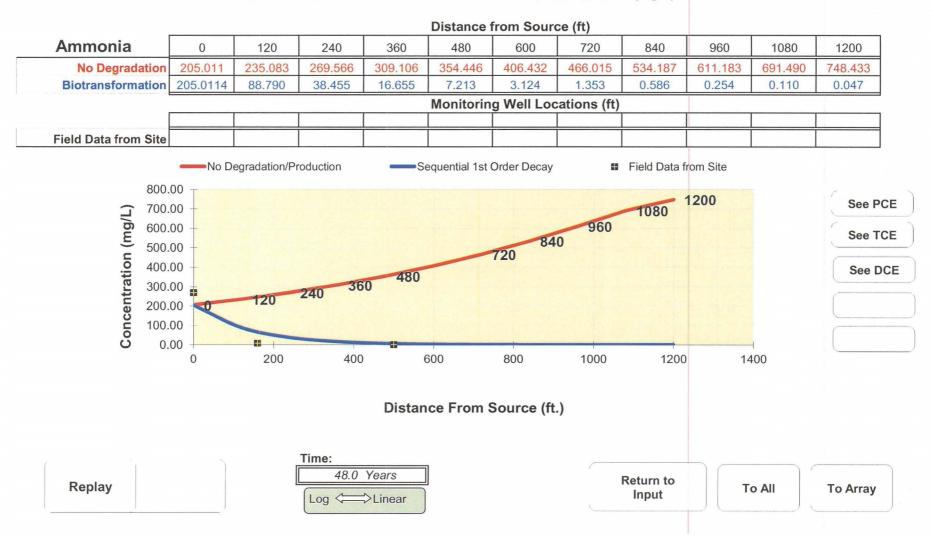


AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

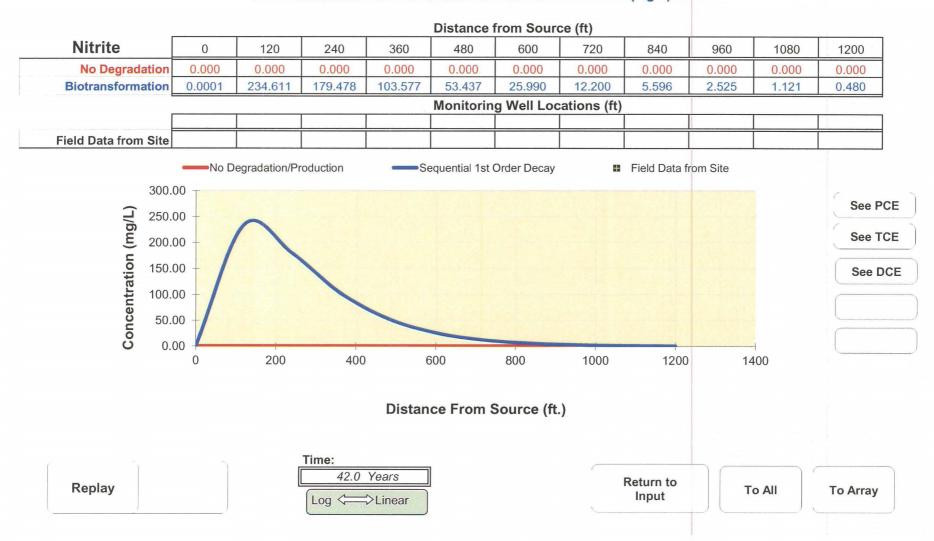


Linear

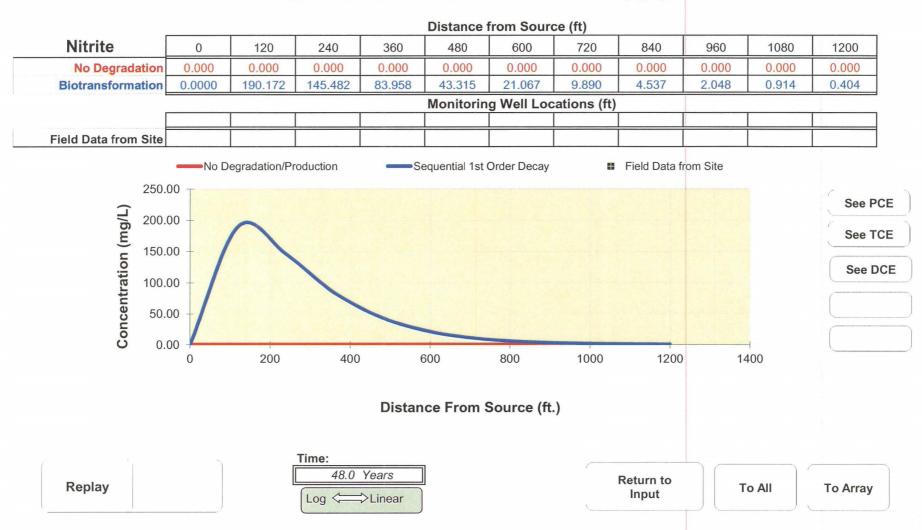
AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



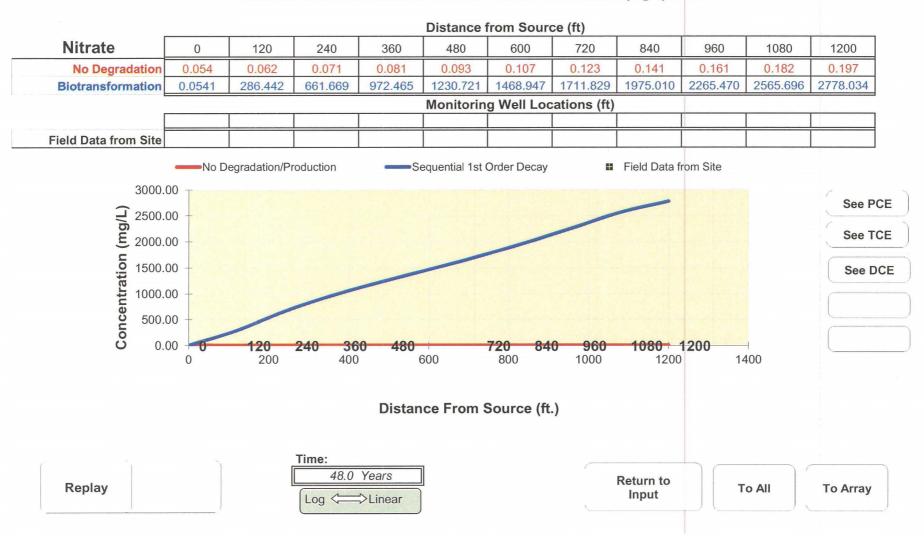
NITRITE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



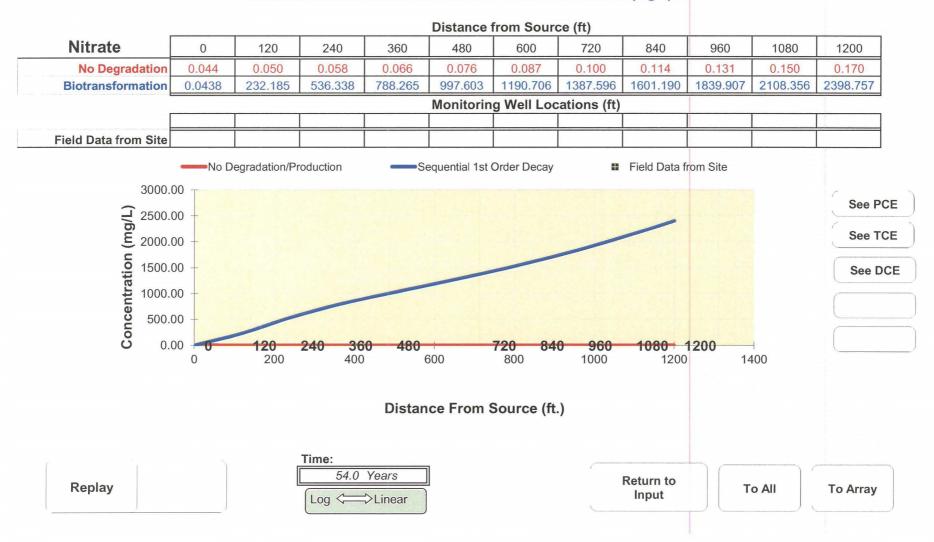
NITRITE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

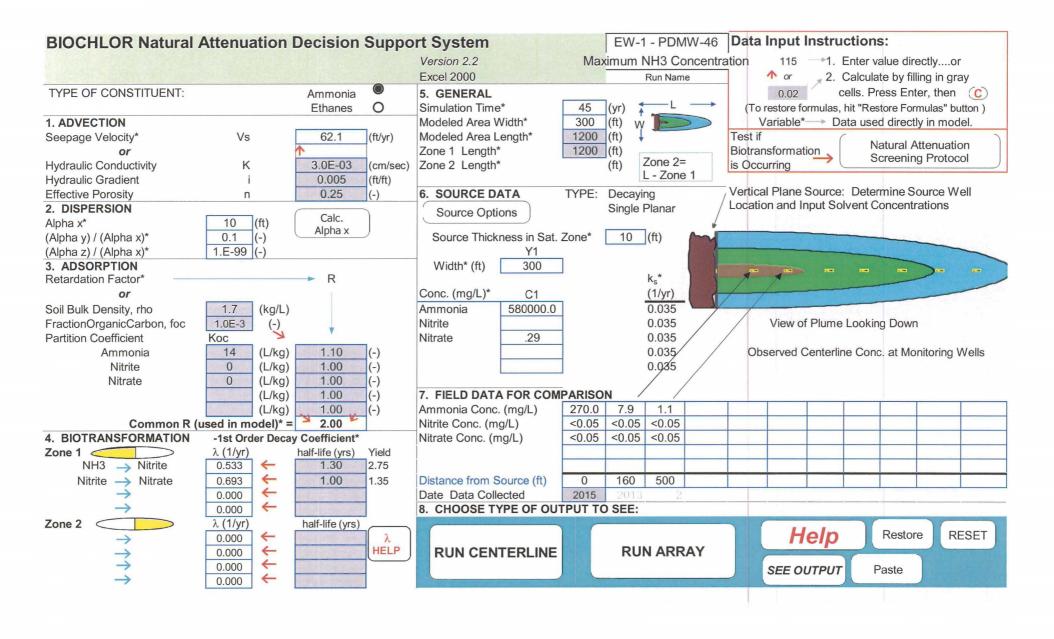


NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0



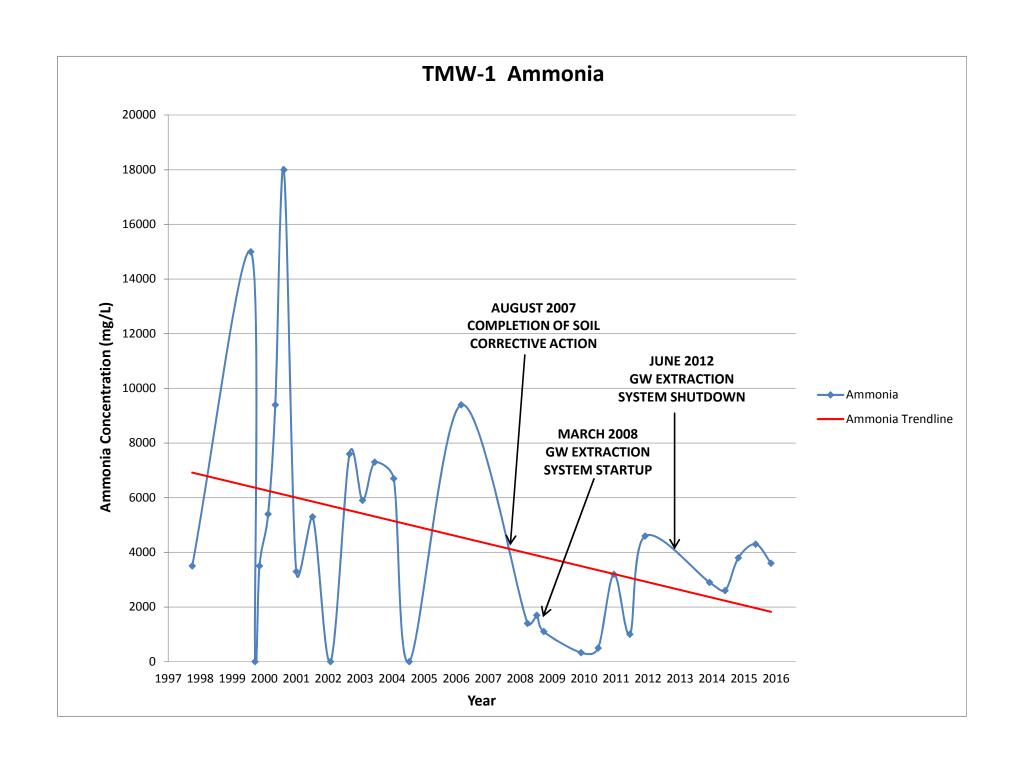
NITRATE CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

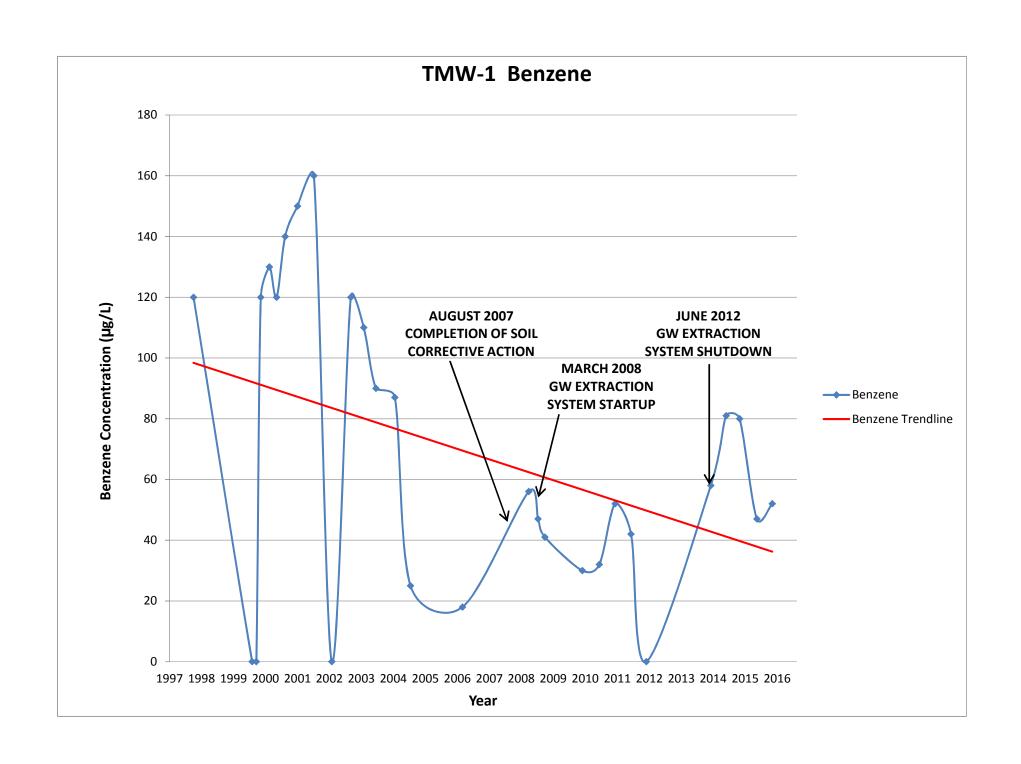


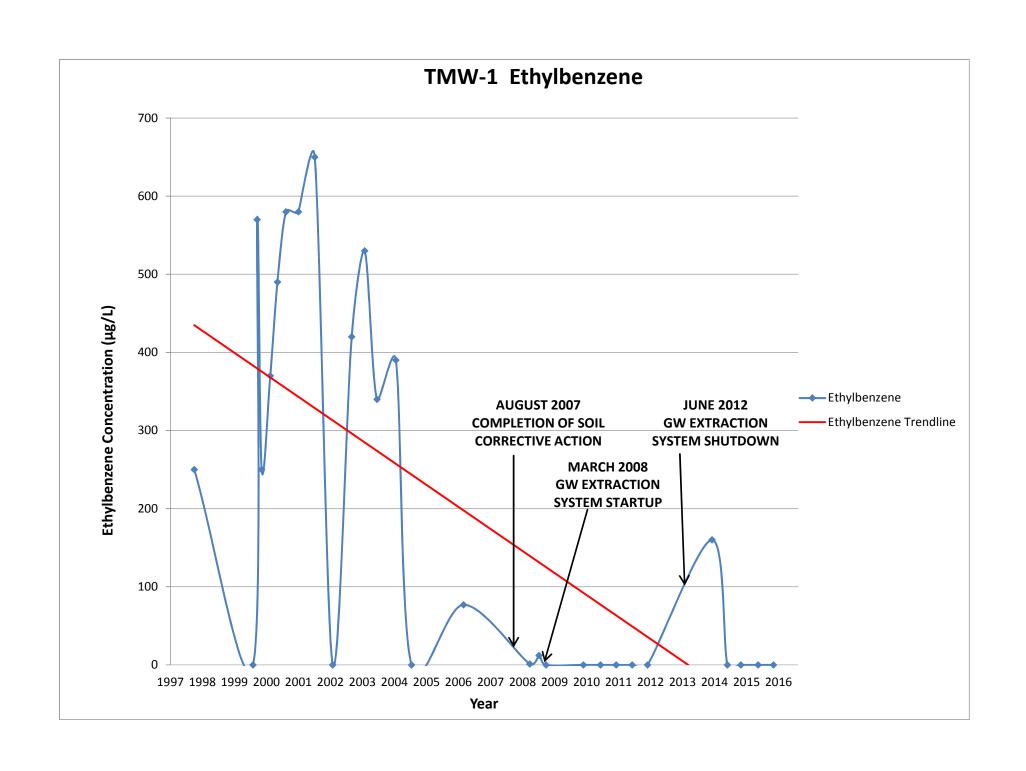


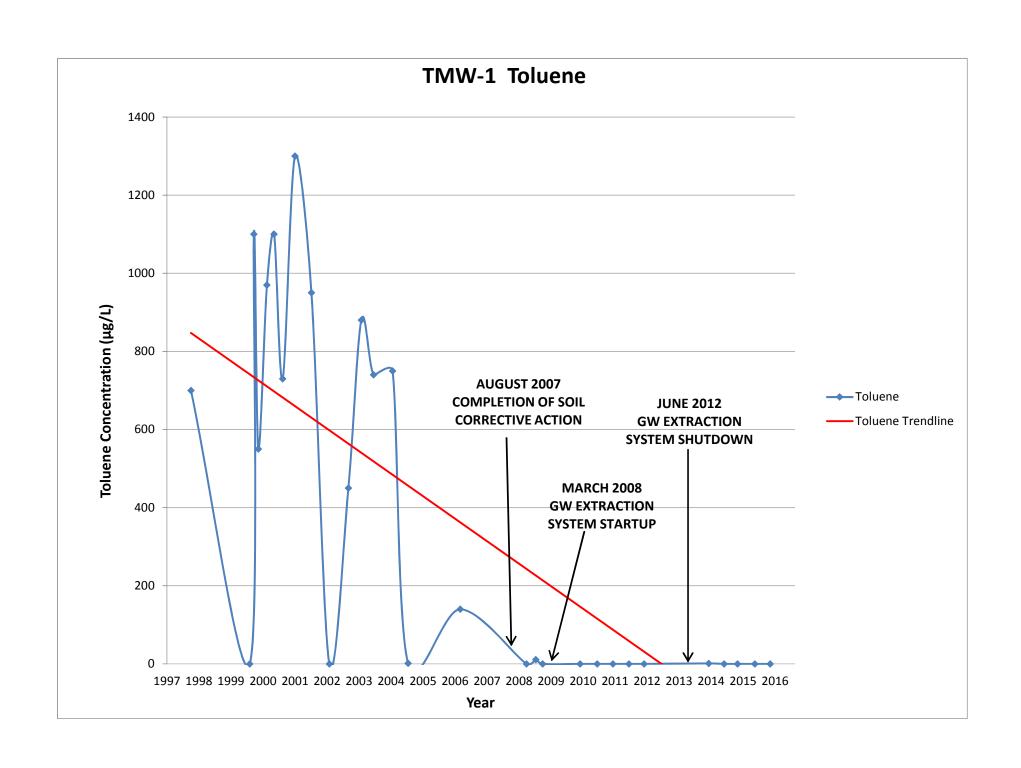
AMMONIA CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0 Distance from Source (ft) **Ammonia** 0 120 240 360 480 600 720 840 960 1080 1200 No Degradation ######### ######## ######## ######## ######## ######## ######## ######## ######## ######### ######## ######## 60869.878 26362.664 11417.635 4944.956 2141.625 927.474 30.240 Biotransformation 401.581 173.626 74.271 **Monitoring Well Locations (ft)** Field Data from Site No Degradation/Production Sequential 1st Order Decay Field Data from Site 450000.00 See PCE 400000.00 1080 840 50000.00 See TCE 1200 500000.00 **2**50000.00 480 120 240 360 See DCE **%**000000.00 50000.00 50000.00 0.00 0 200 600 800 1000 1200 1400 400 **Distance From Source (ft.)** Time: 40.5 Years Return to Replay To All To Array Input Log \Linear

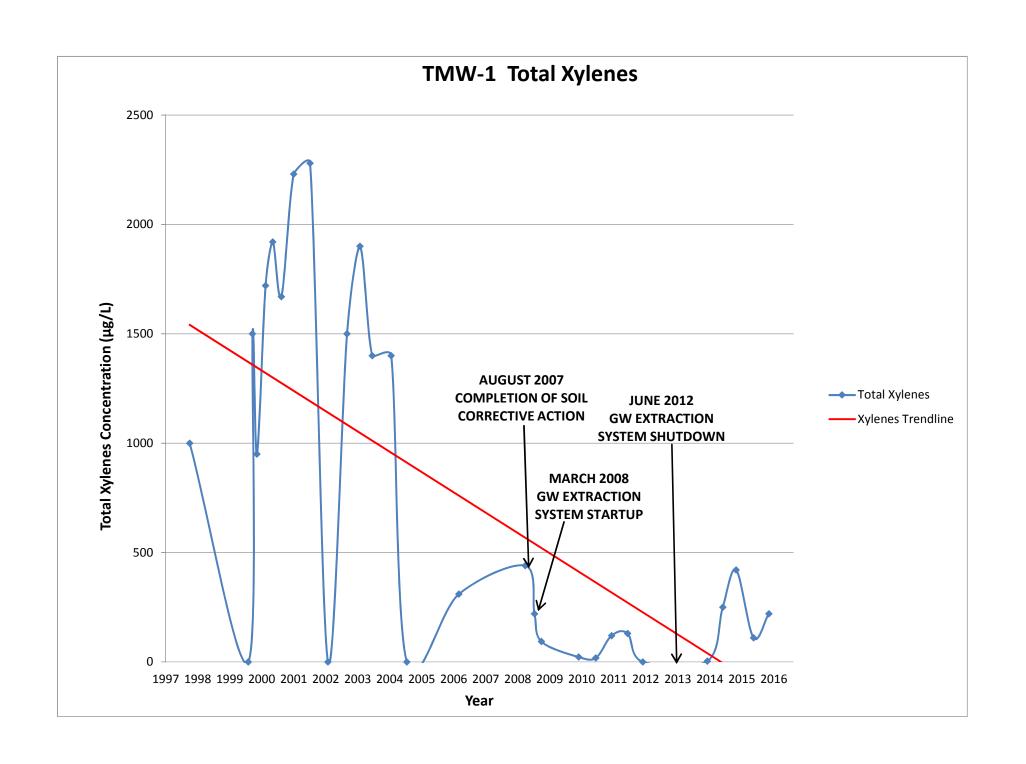
APPENDIX D CONTAMINANT TREND GRAPHS

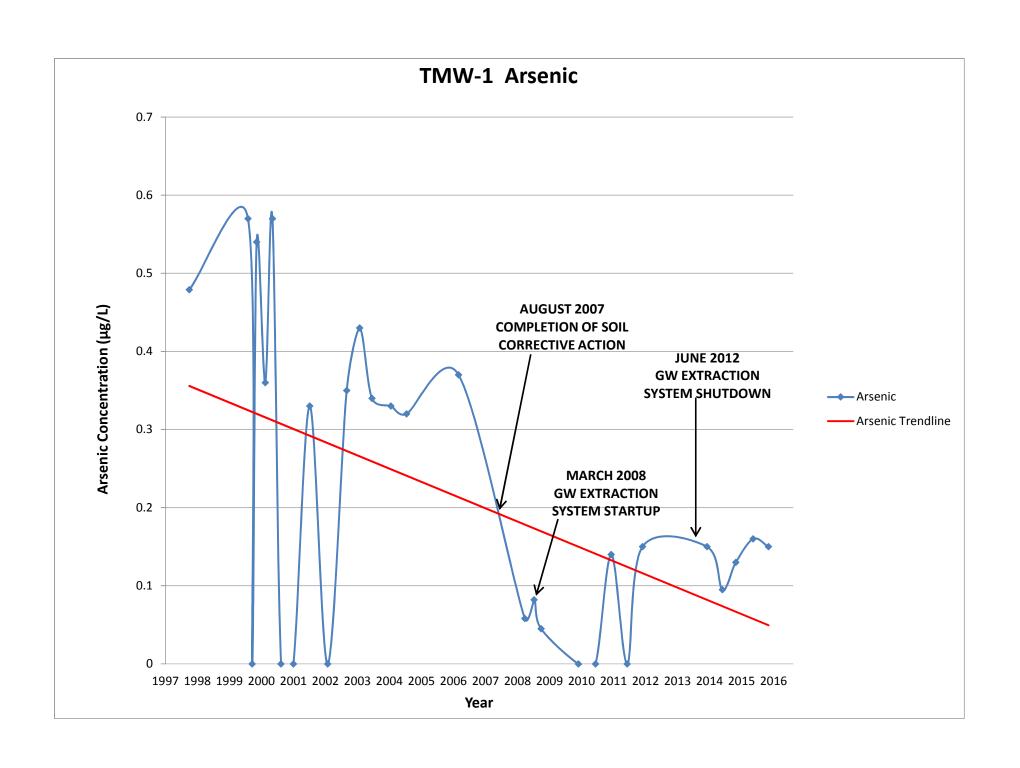


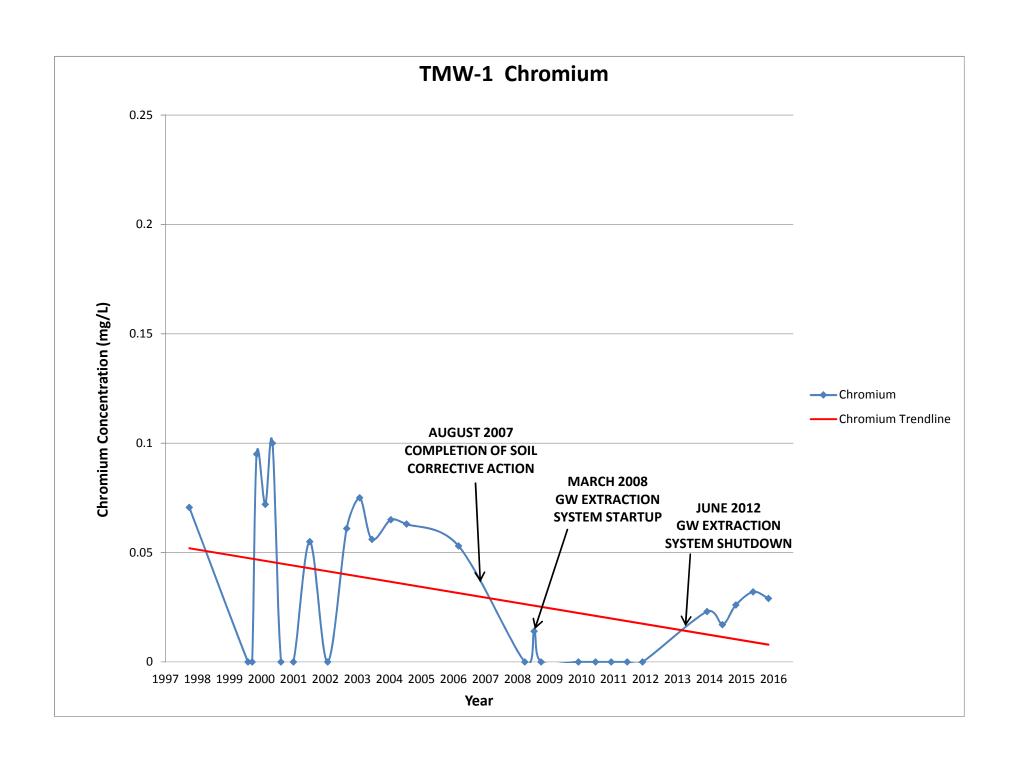


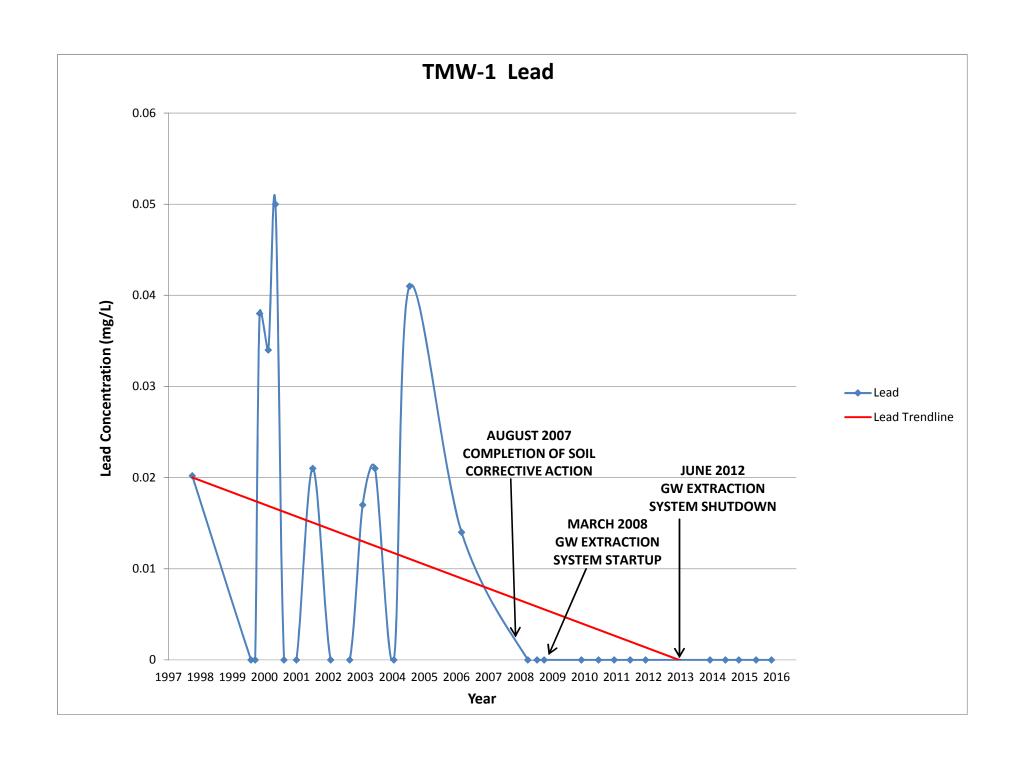


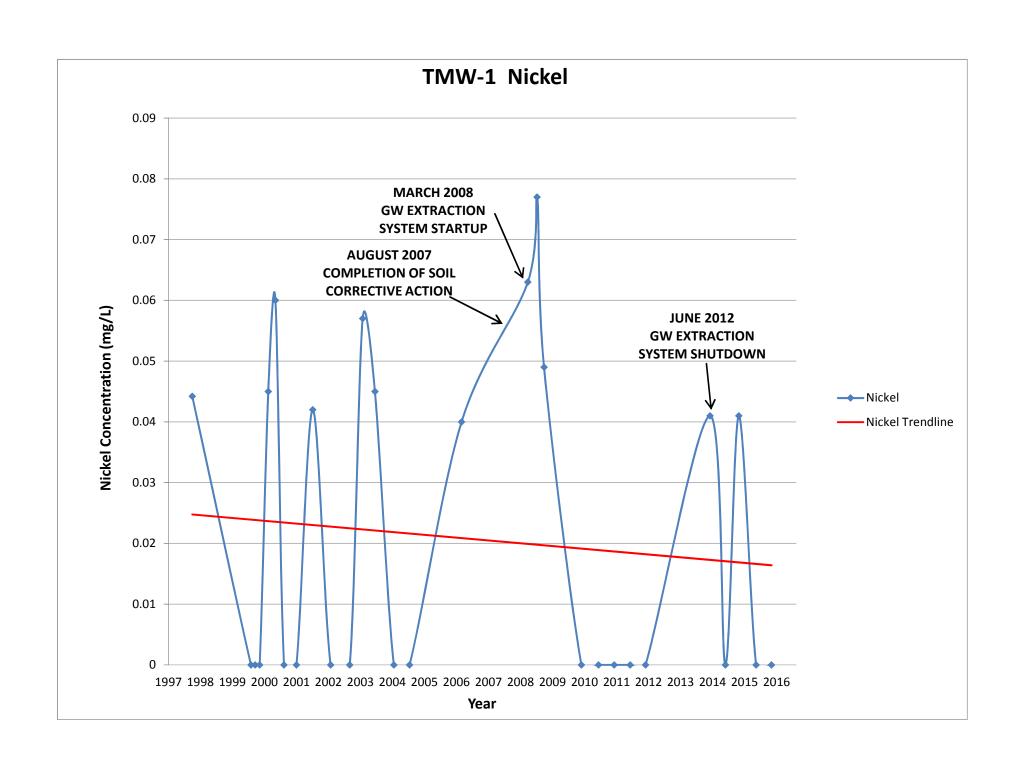


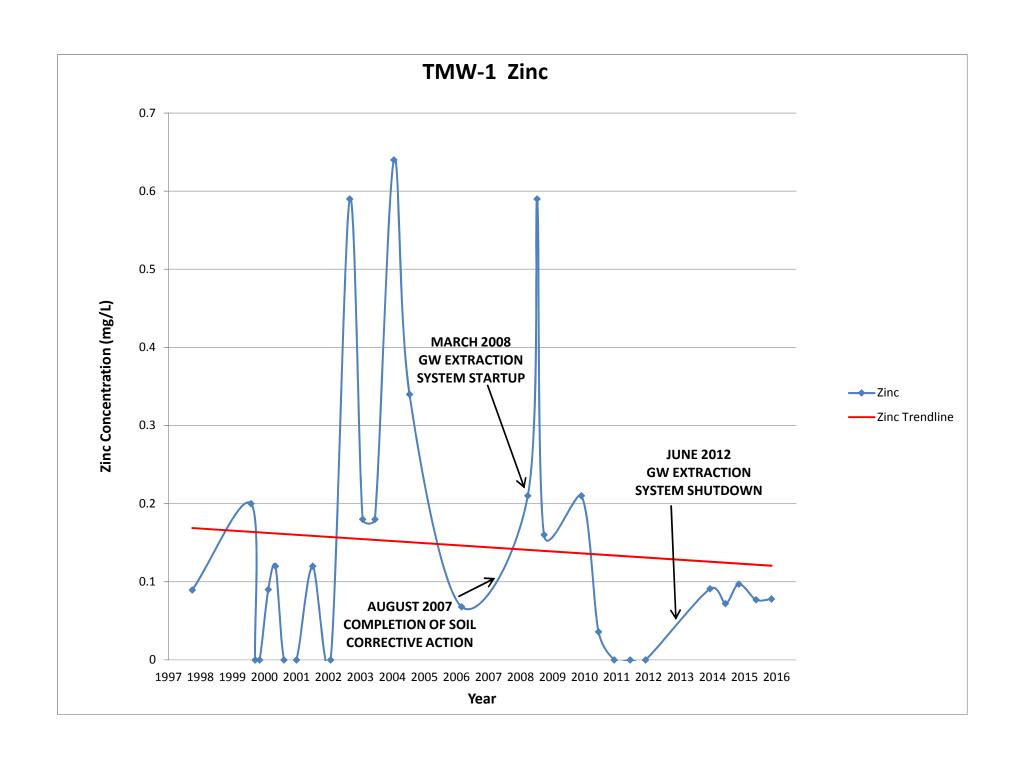


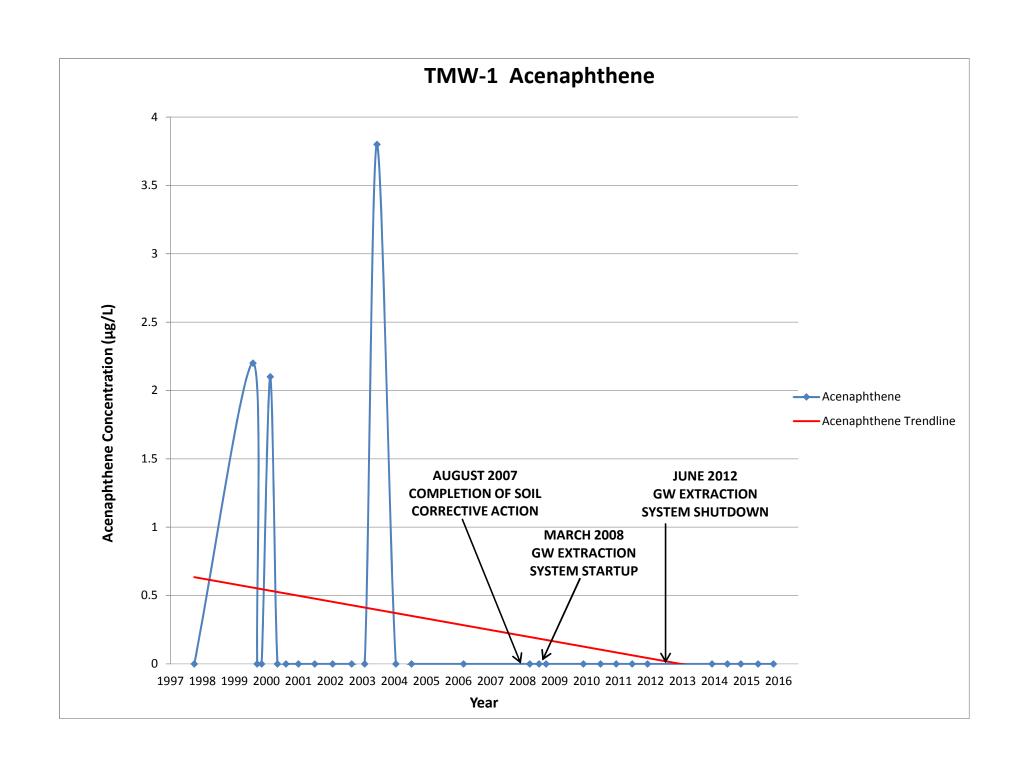


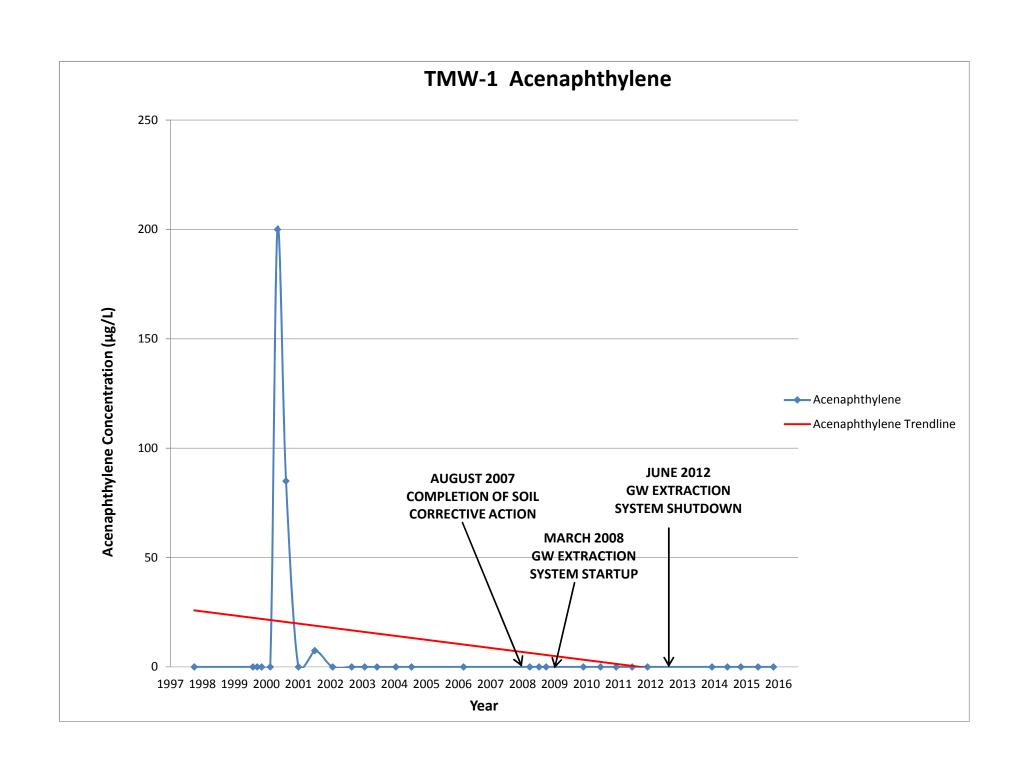


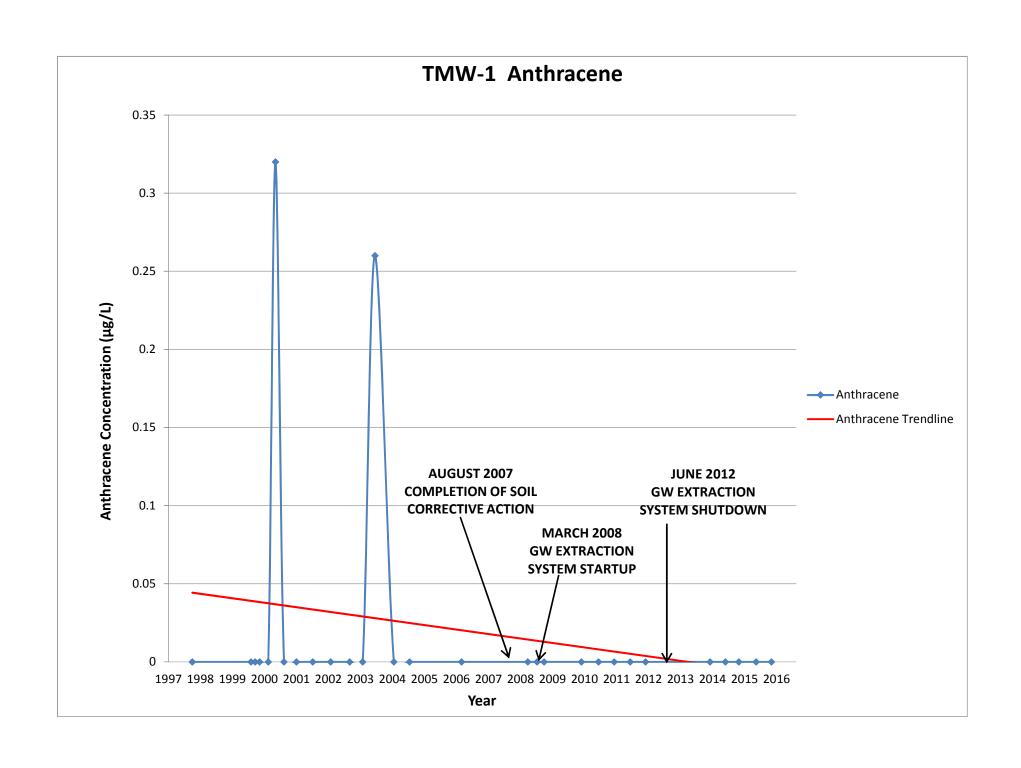


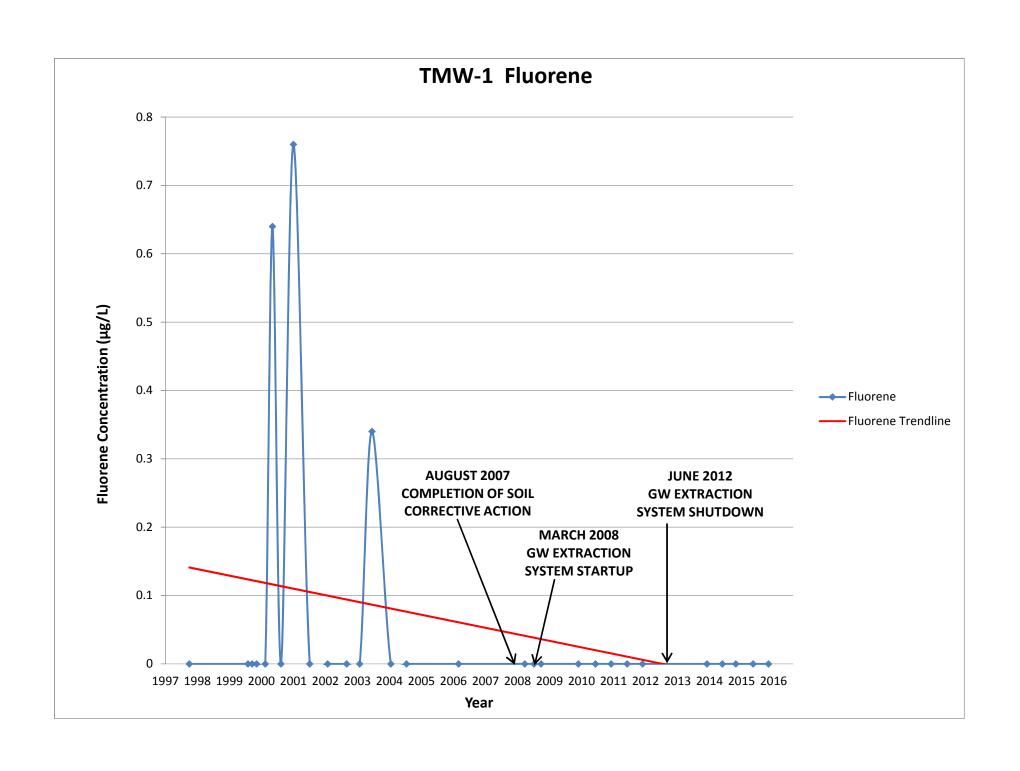


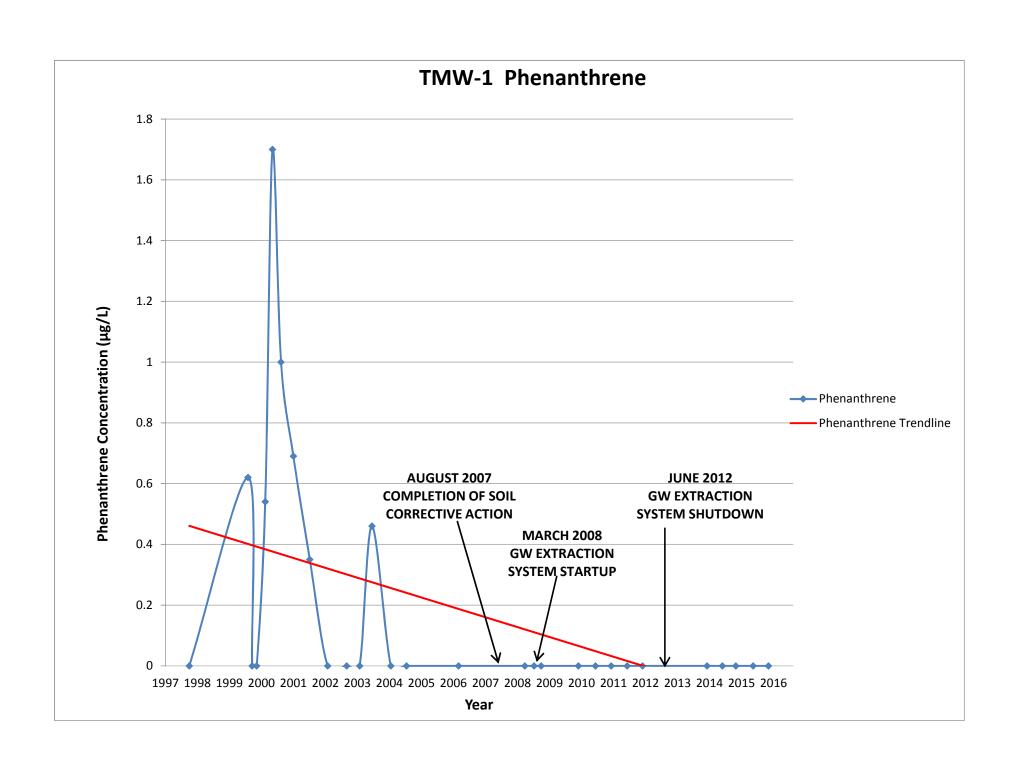


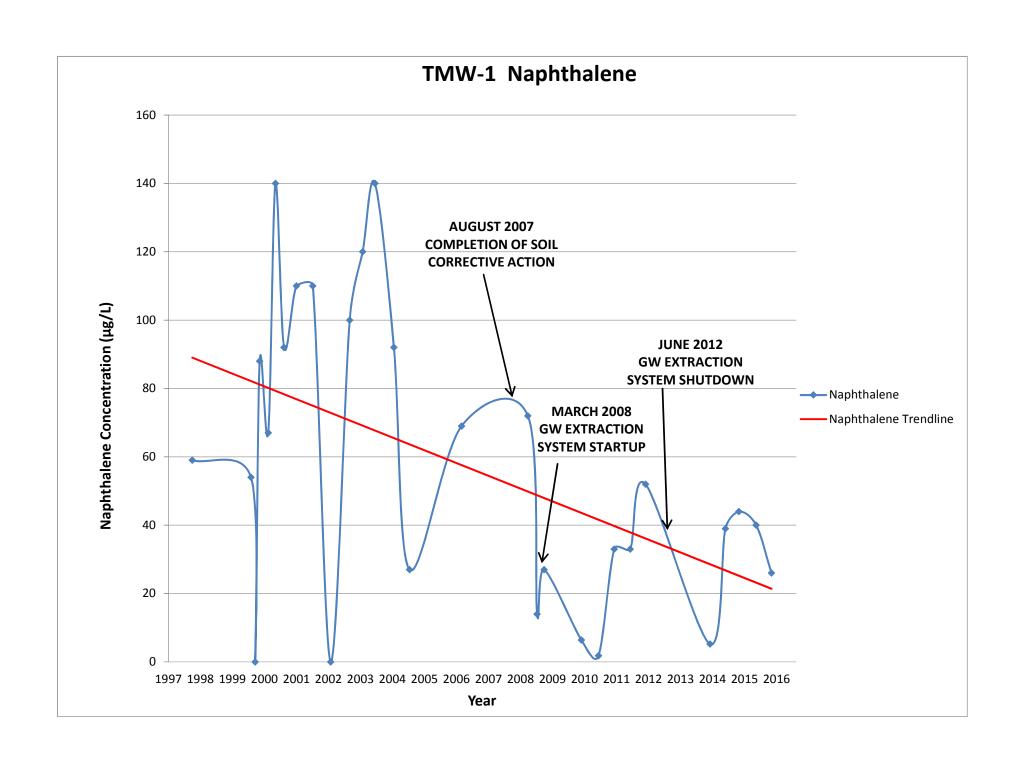


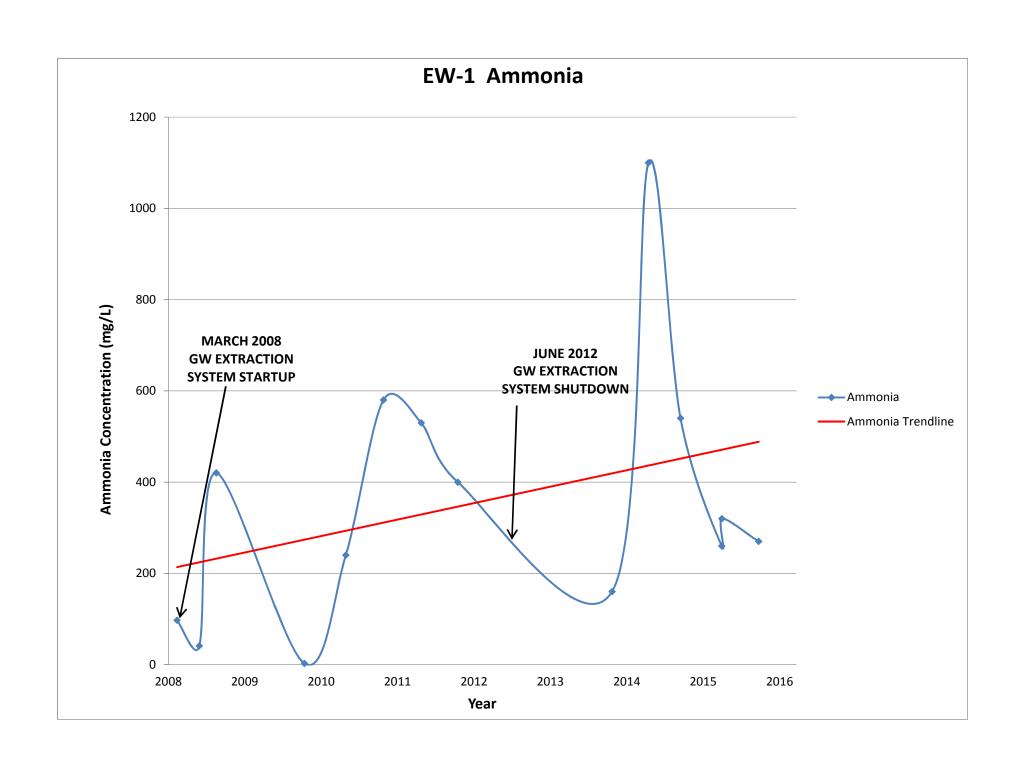


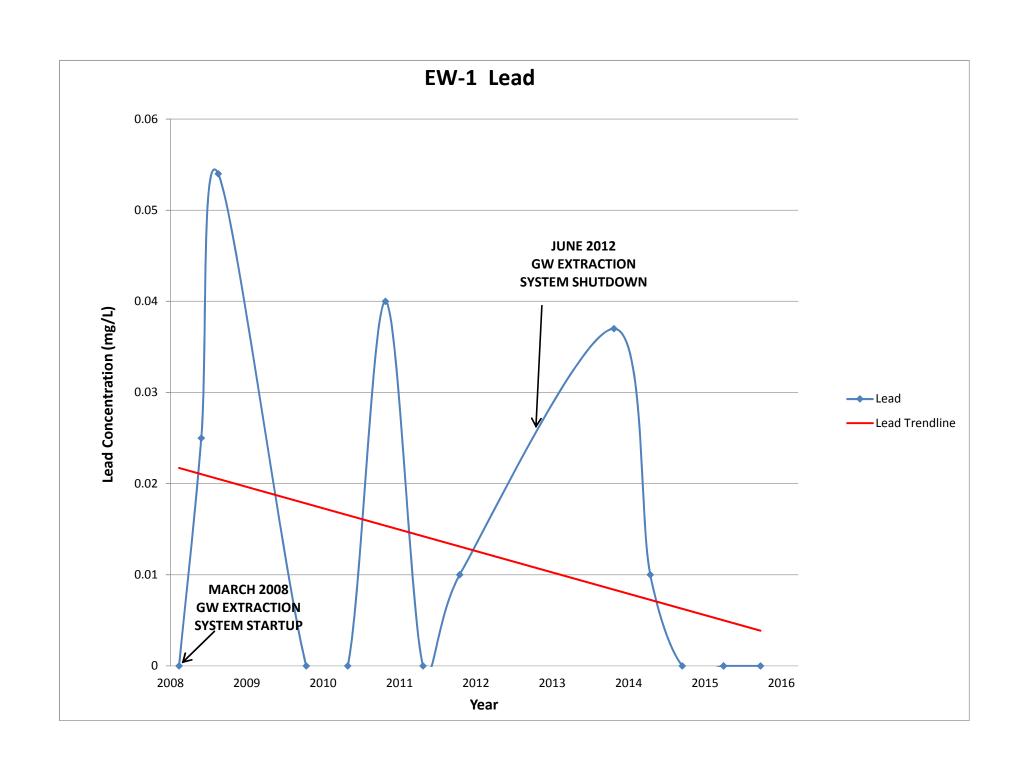


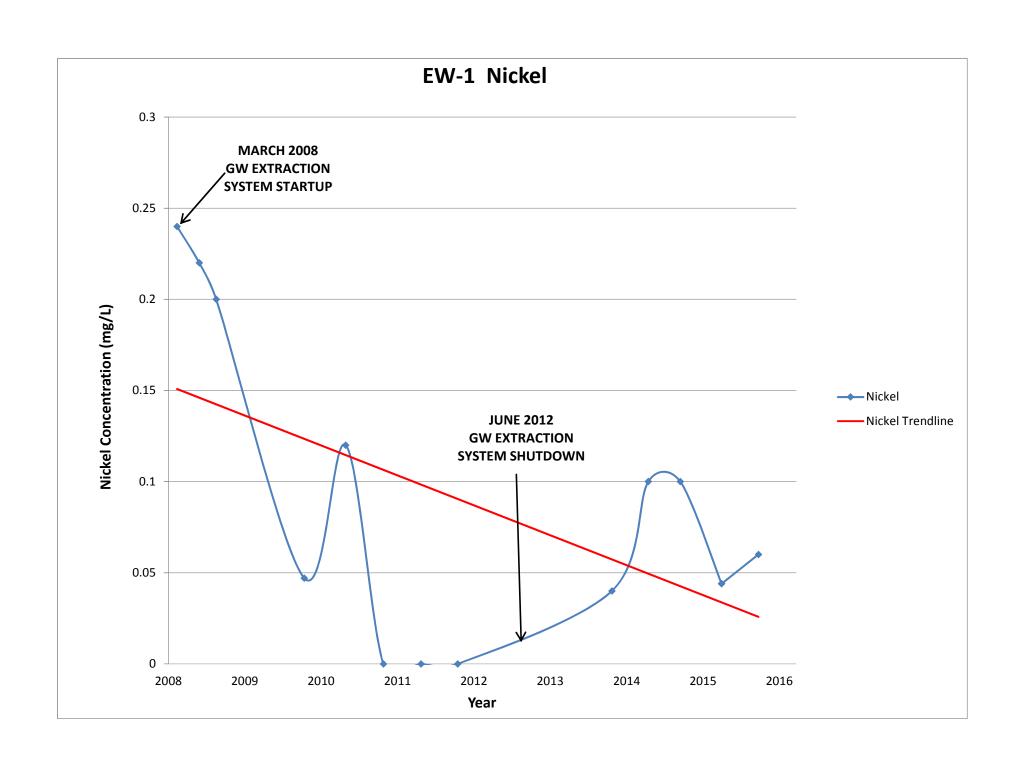


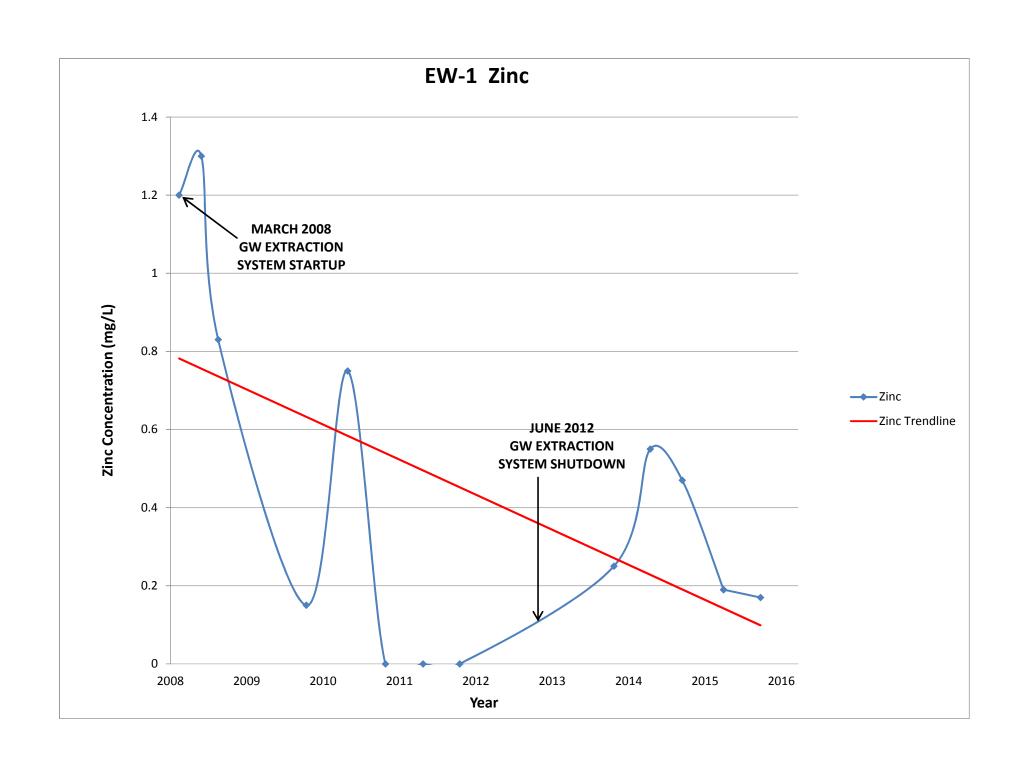


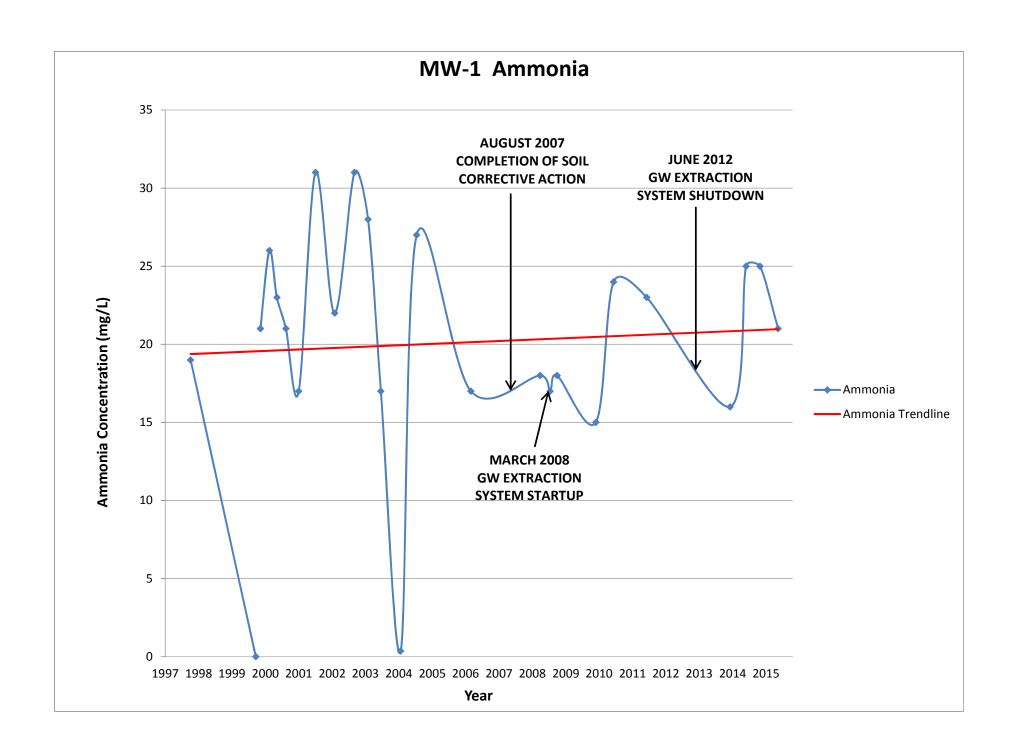


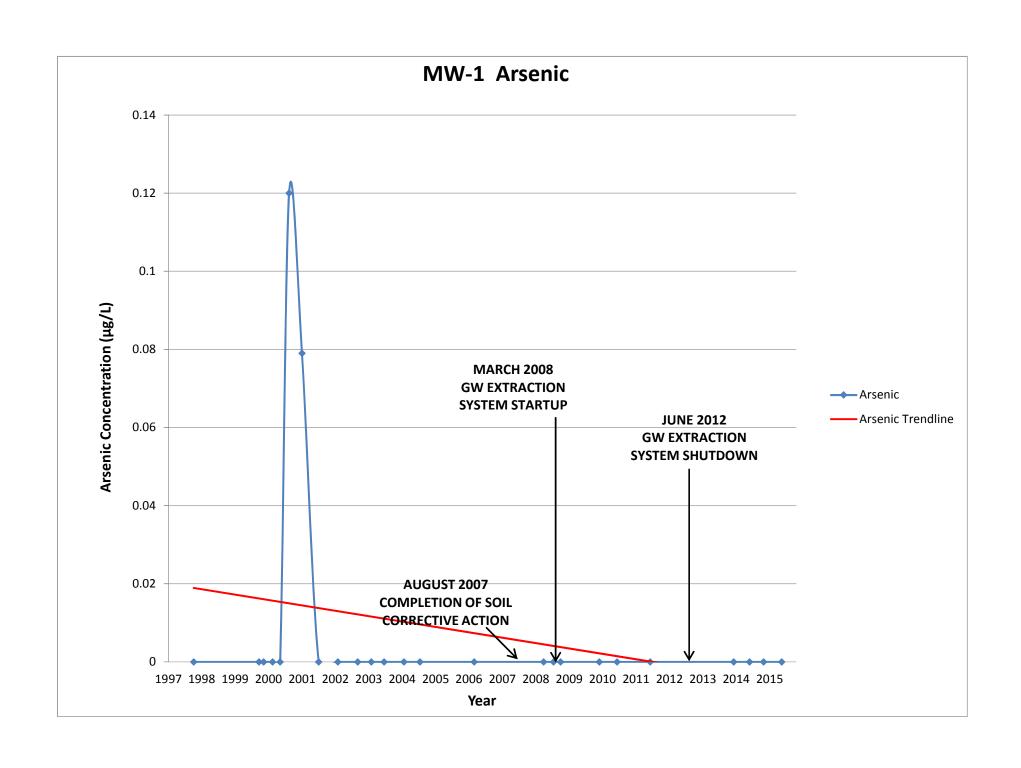


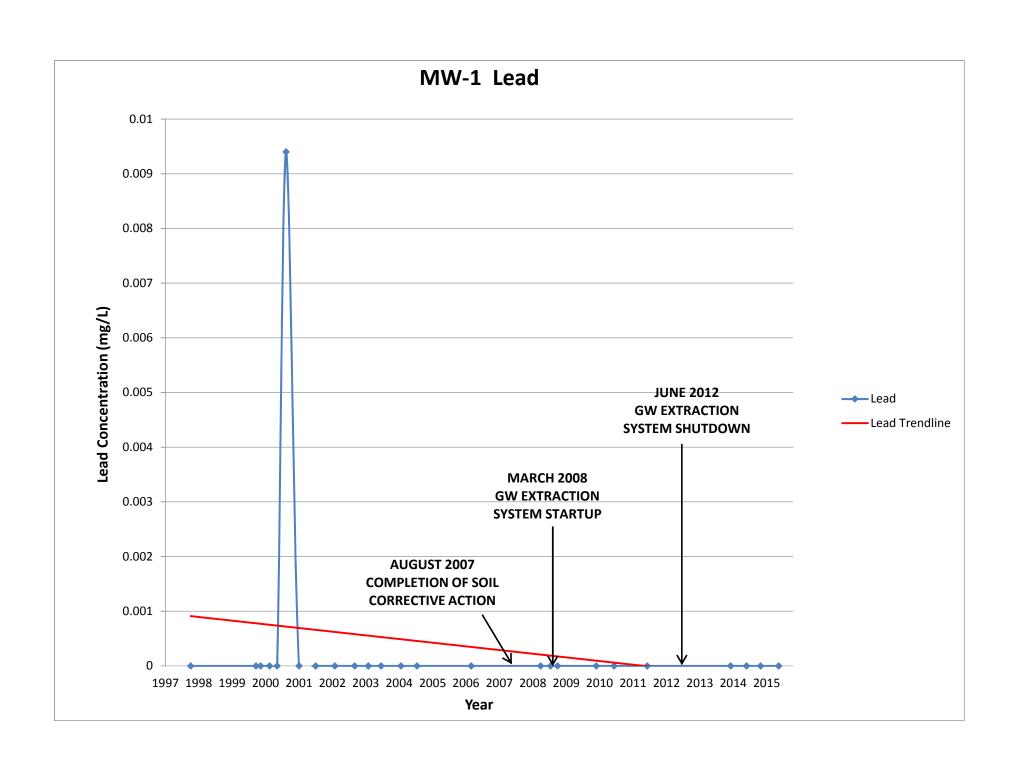


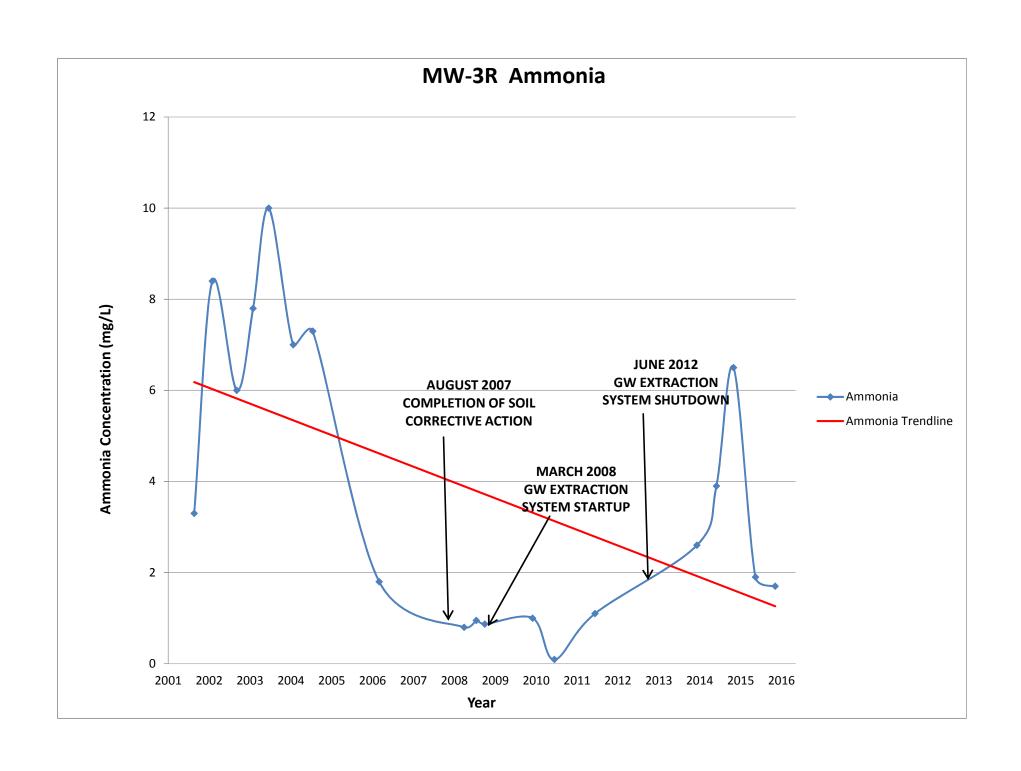


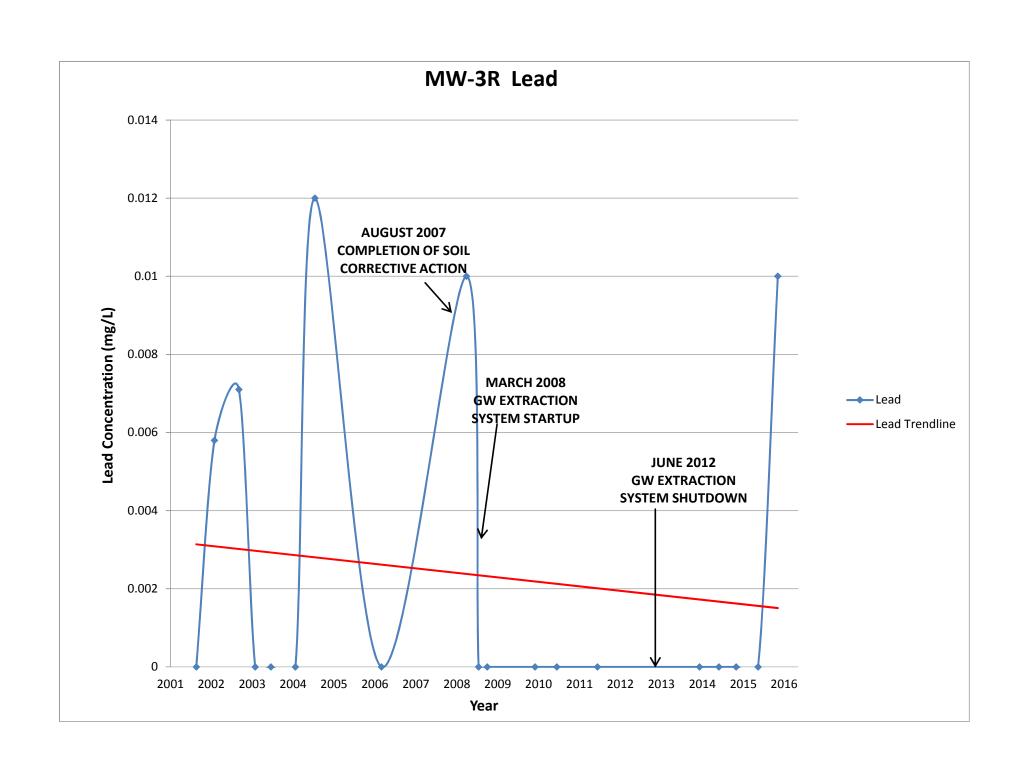


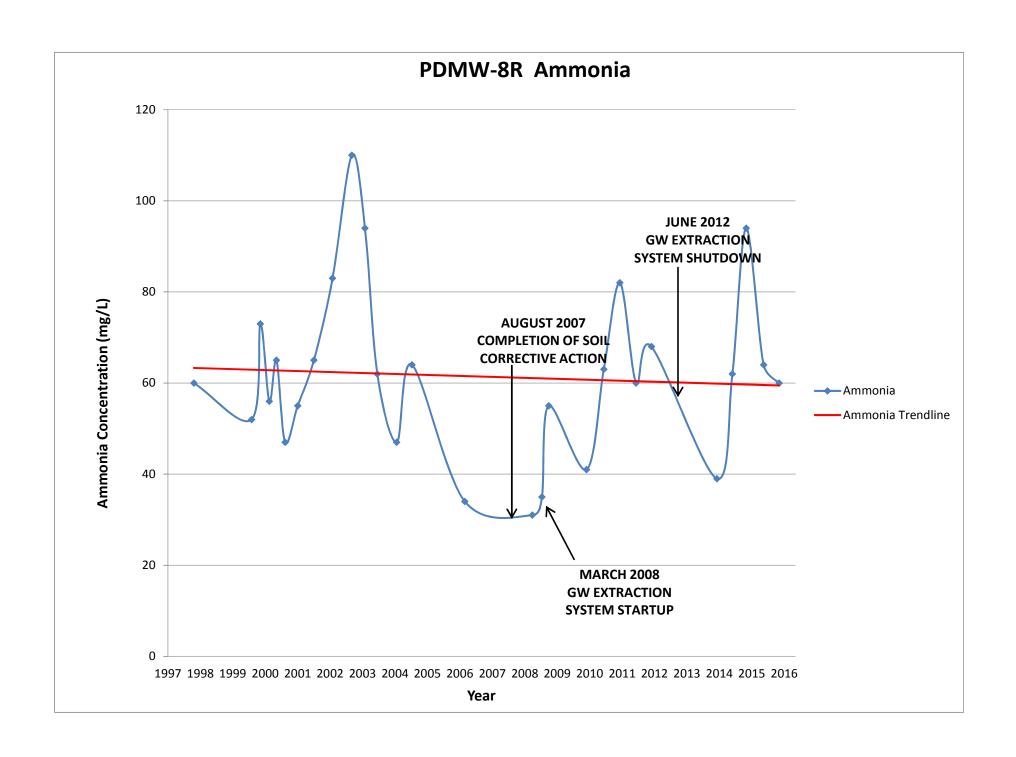


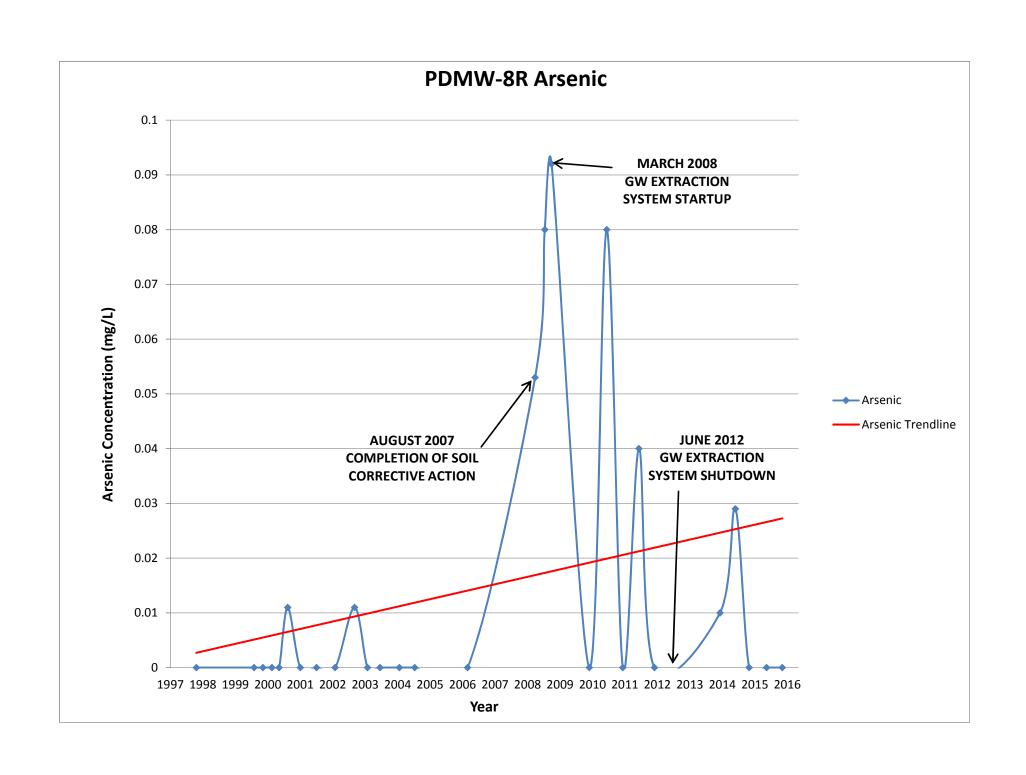


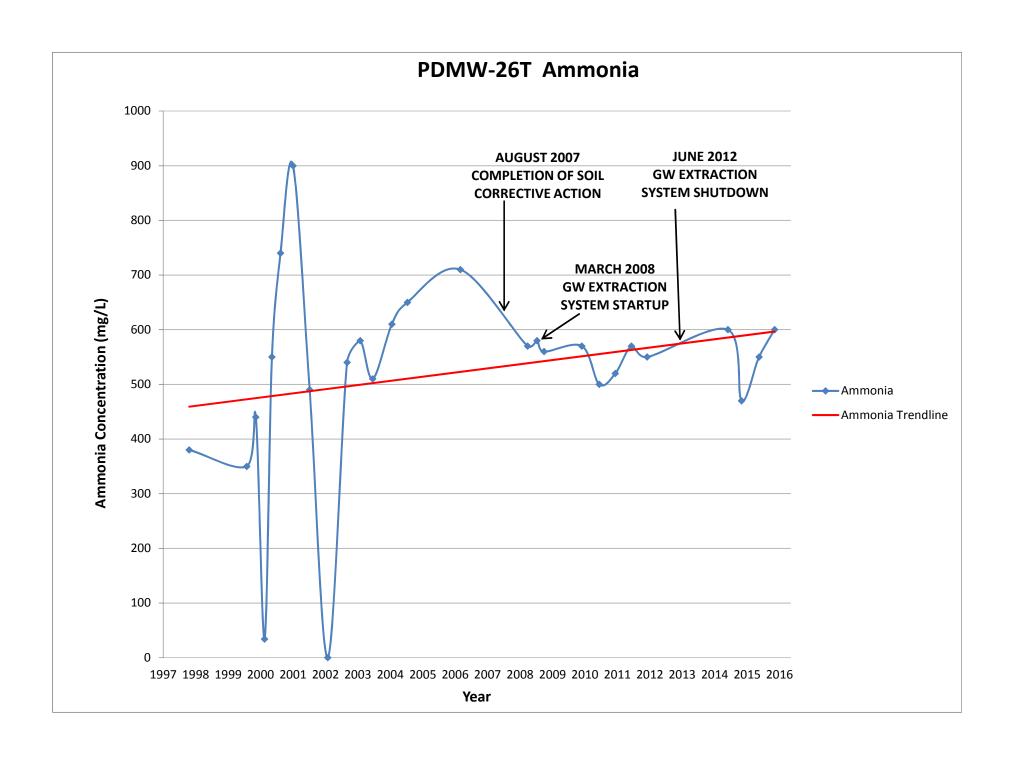


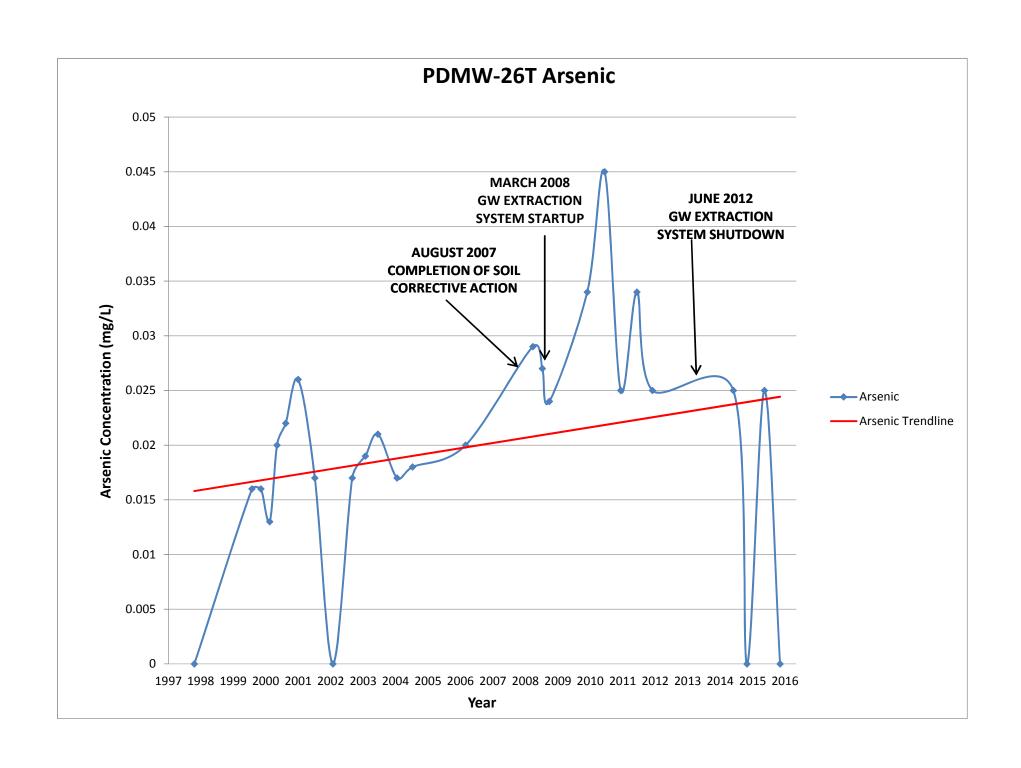


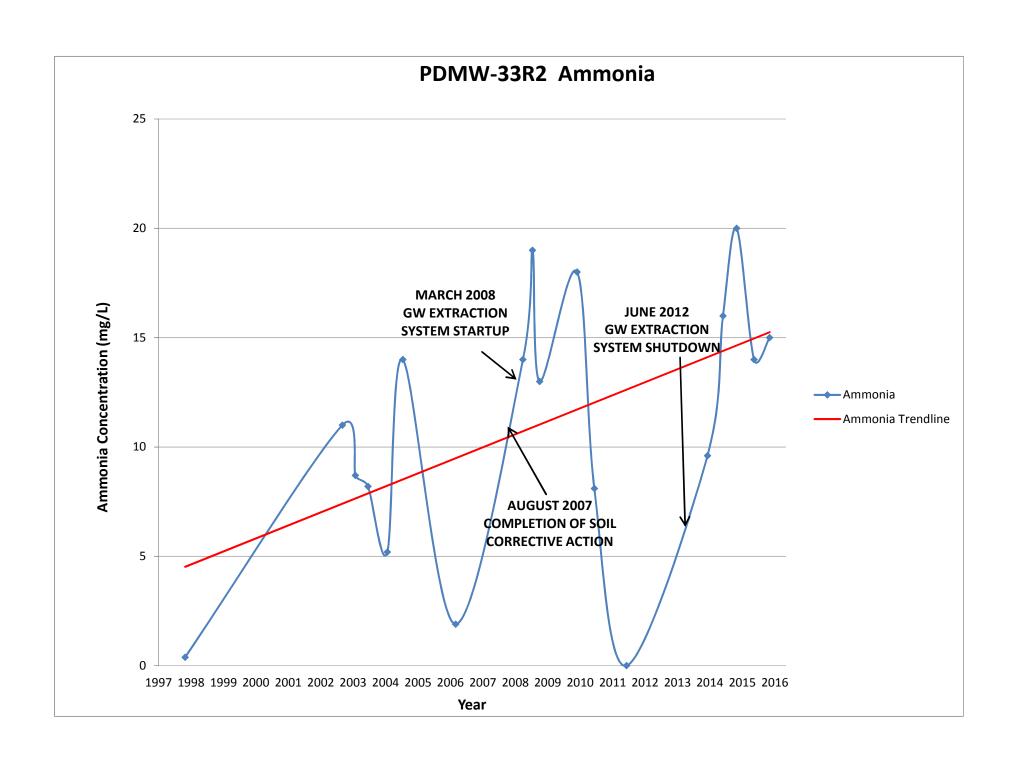


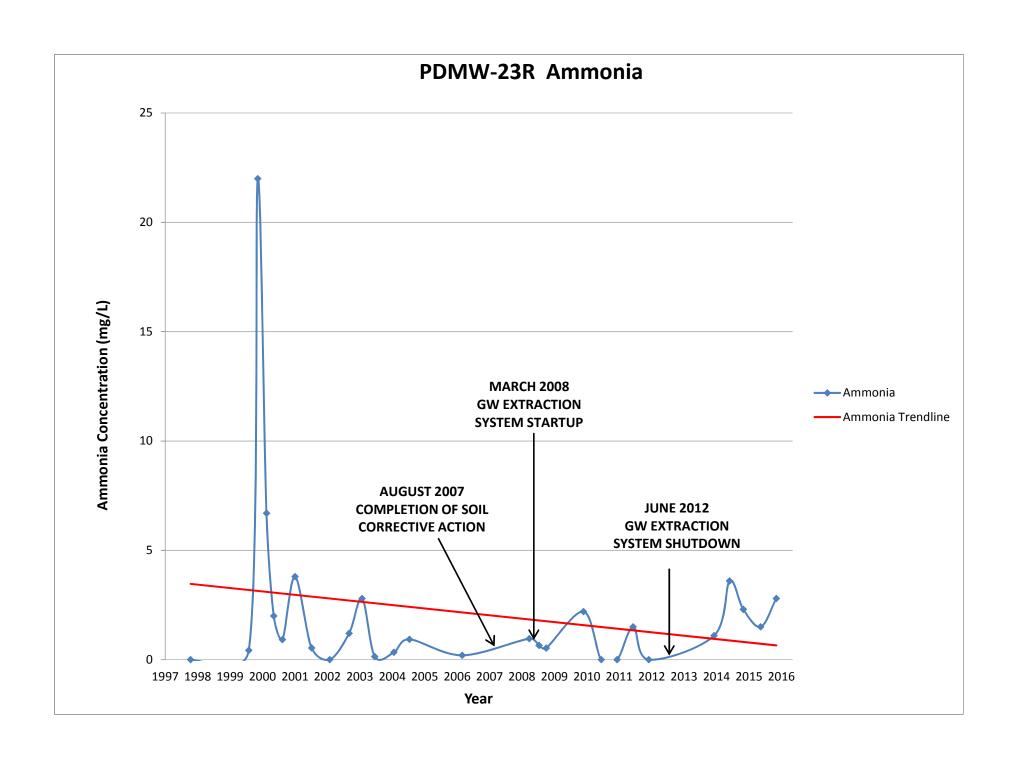


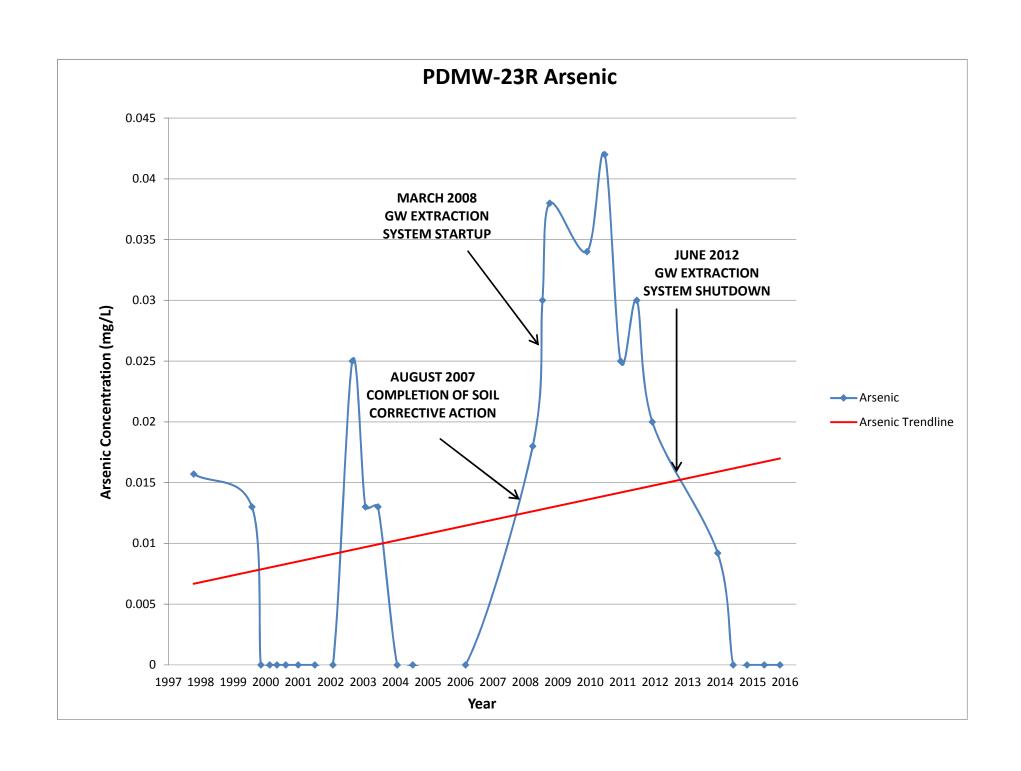


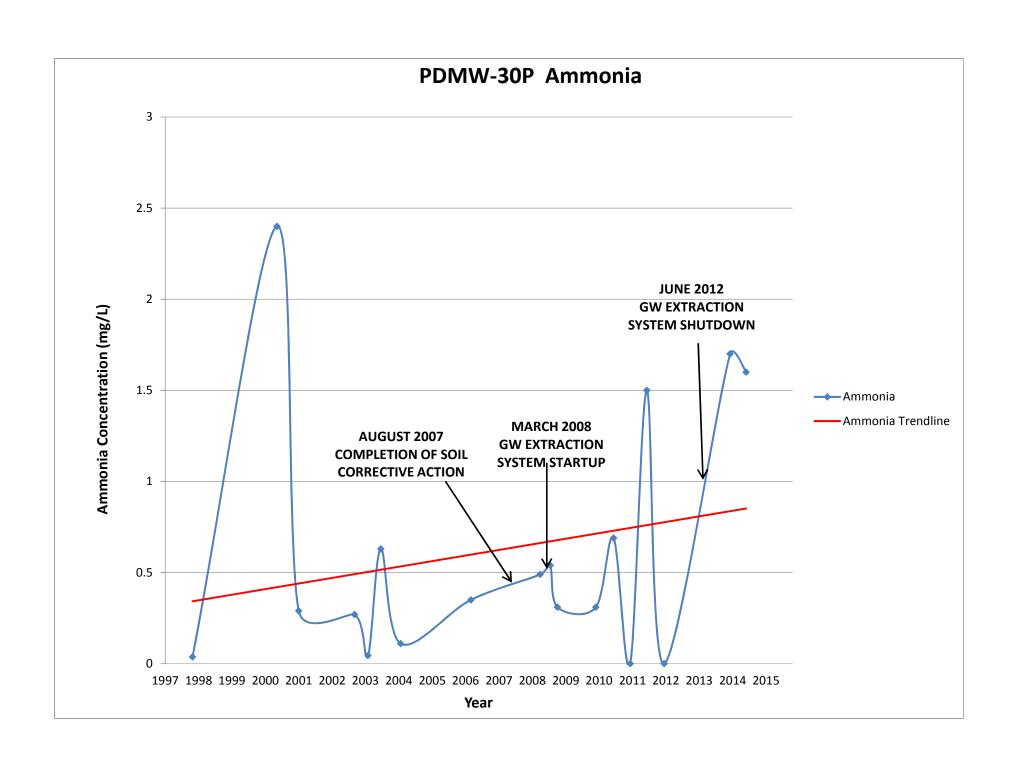


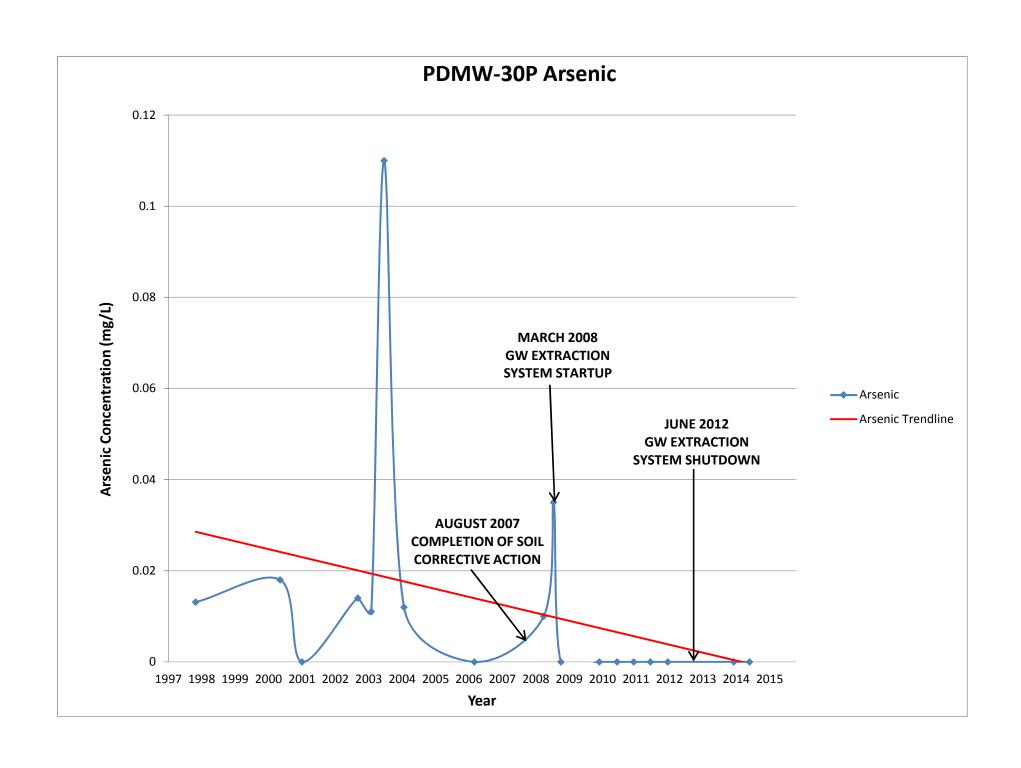


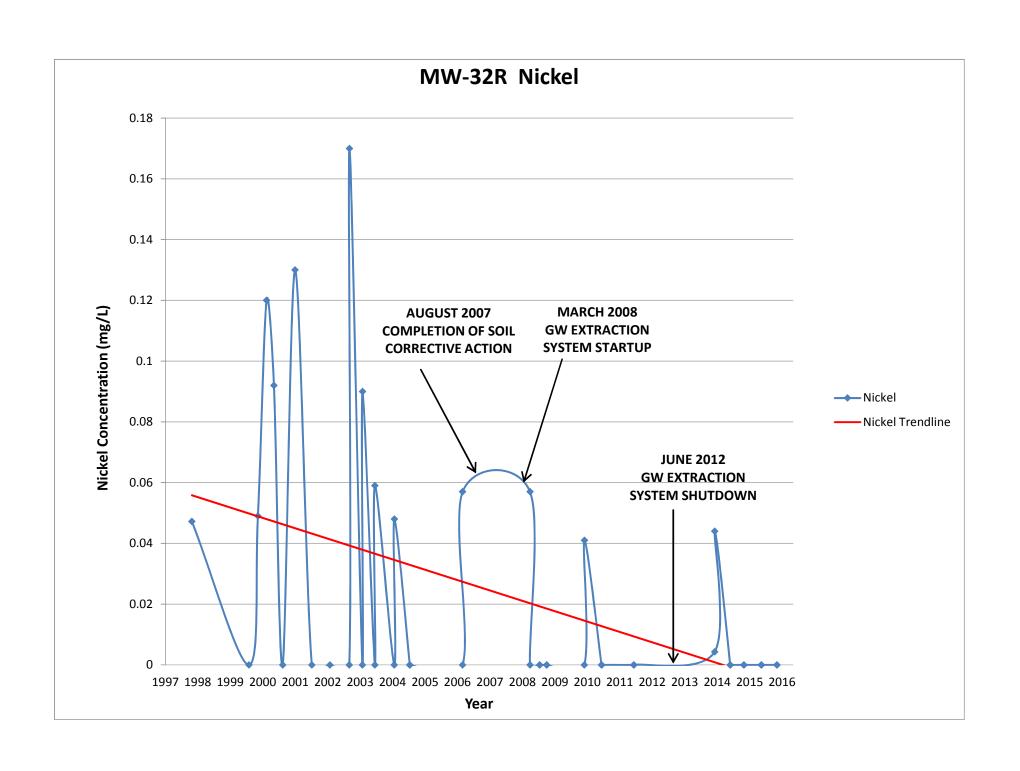


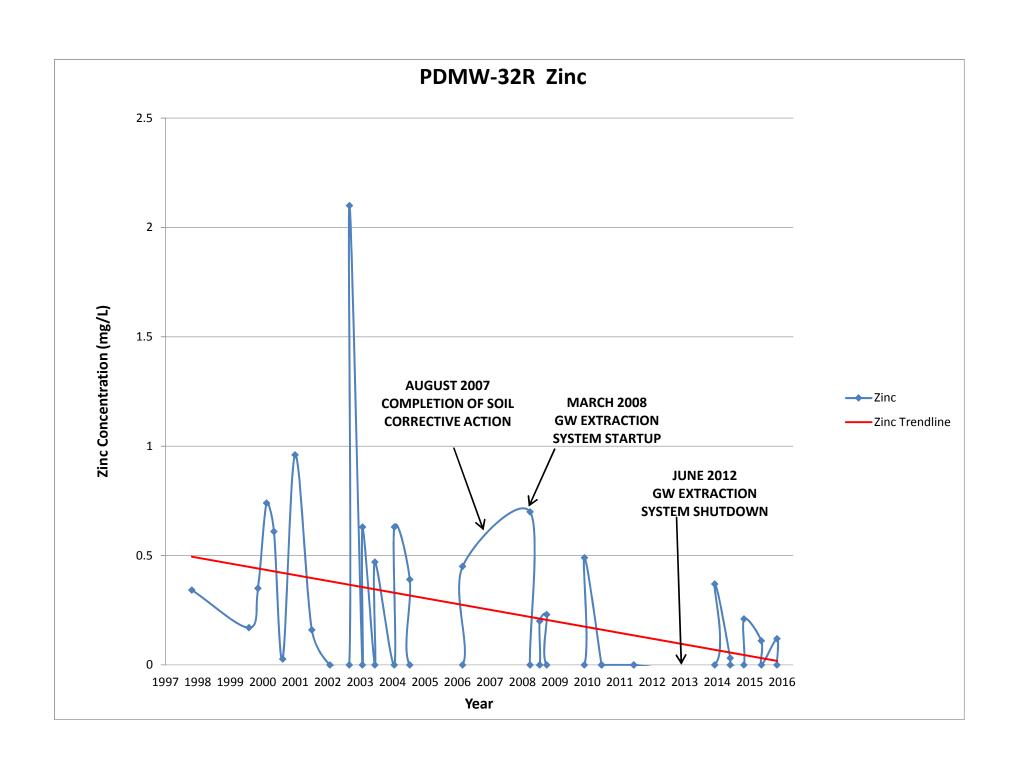


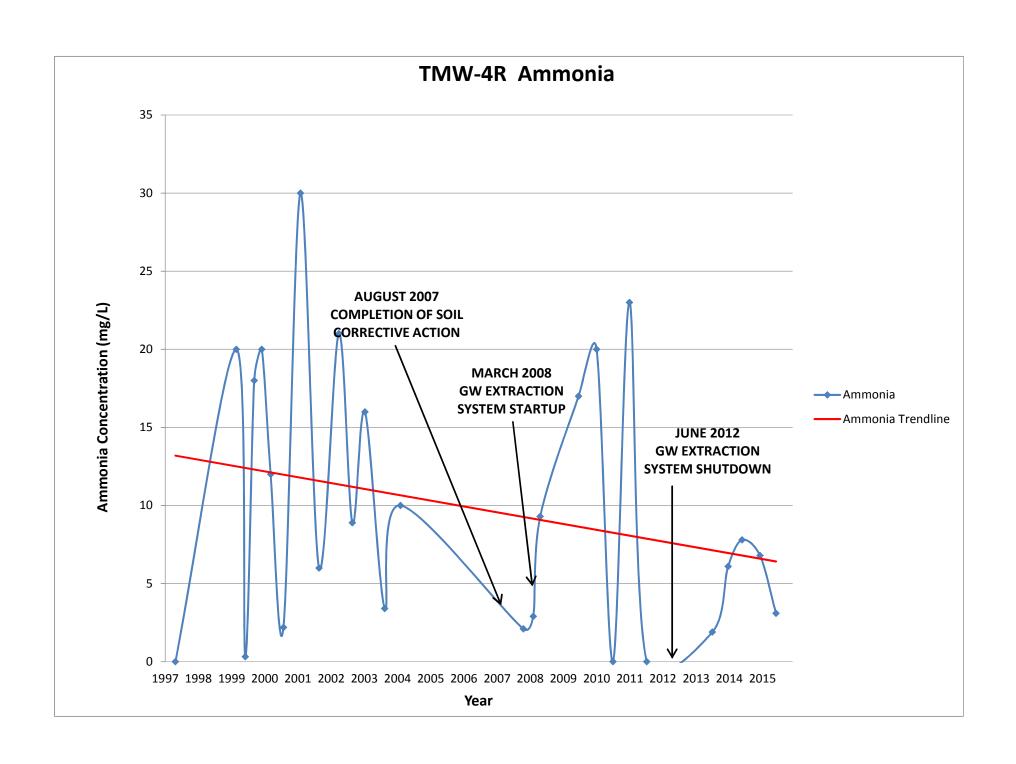


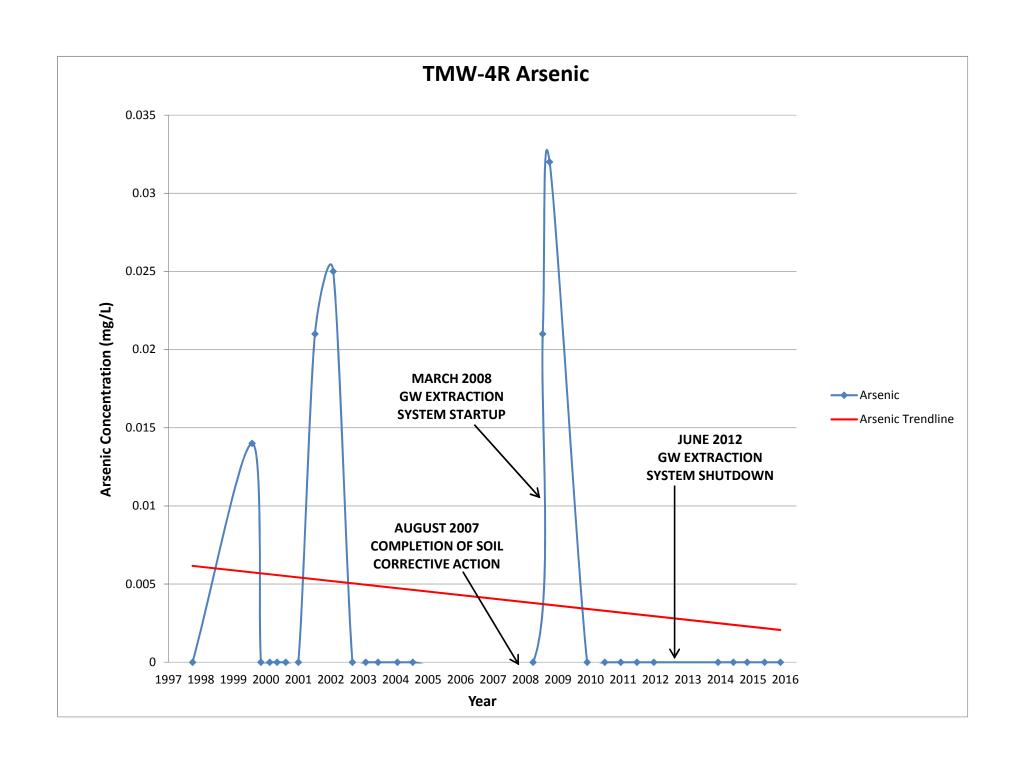












APPENDIX E VAPOR INTRUSION MODELING

OSWER VAPOR INTRUSION ASSESSMENT

Vapor Intrusion Screening Level (VISL) Calculator Version 3.4, November 2015 RSLs

The primary objective of risk-based screening is to identify sites or buildings unlikely to pose a health concern through the vapor intrusion pathway. Generally, at properties where subsurface concentrations of vapor-forming chemicals (e.g., groundwater or "near source" soil gas concentrations) fall below screening levels (i.e., VISLs), no further action or study is warranted, so long as the exposure assumptions match those taken into account by the calculations and the site fulfills the conditions and assumptions of the generic conceptual model underlying the screening levels. In a similar fashion, the results of risk-based screening can help the data review team identify areas, buildings, and/or chemicals that can be

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	19.4	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

		for volatility?	toxicity data?	Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 0.1	Toxicit y Basis	Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 0.1	Conc. @ TCR = 1E-06 or THQ = 0.1	Is Target Ground Water Conc. < MCL?	Phase Vapor Conc. @ 25°C	Conc.	ater Vapor Conc.	Lower Explosi ve Limit**	LEL Source				nic Indicat	Indoor Air Conc. for Carcino gens @ TCR = 1E-06	0.1
		(HLC>1E-5 or VP>1)	(IUR and/or RfC)	Cvp > Cia,target?	Chc > Cia,target?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw <mcl?< td=""><td>Cvp</td><td>Chc</td><td>Tgw or 25</td><td>LEL</td><td></td><td>IUR</td><td>RfC</td><td></td><td>i</td><td>Cia,c</td><td>Cia,nc</td></mcl?<>	Cvp	Chc	Tgw or 25	LEL		IUR	RfC		i	Cia,c	Cia,nc
7664-41-7	Ammonia	Yes	Yes	Yes	Yes	4.4E+01	NC	1.5E+03	7.8E+04		6.88E+09	2.70E+08	19.4	15	N		1.00E-01	I			4.4E+01