Georgia Environmental Protection Division
Land Protection Branch
Response and Remediation Program
Response Development Units 1 – 3

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Document Submittal Form

Instructions: This form should be completed and included with any document submitted to the Response and Remediation Program, Response Development Units 1 – 3, that is greater than 25 pages in length or that contains paper sizes larger than 11"x17". This includes Release Notifications and documents related to Hazardous Site Inventory and Voluntary Remediation Program sites. Contact Brownfield Unit staff for Brownfield submittal guidelines. Your cooperation helps to ensure that documents are filed correctly, completely, and efficiently.

Name of Document: VRP Compliance Status Report

Date of Document: June 15, 2018

Site Name: Georgia Power Plant Kraft

Site ID Number: 10415

Document Submittal Checklist. Please certify that the submittal includes the following by checking each box as appropriate. Items 1 – 3 should be checked / included / certified for each submittal:

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☒ laboratory data sheets ☒ manifests

☒ other: Appendices A-D & H-K

I certify that the information I am submitting is, to the best of my knowledge and belief, true, accurate, and complete.	Receipt Date (for EPD use only)
Signature: Stephen K Wilson	
Name (printed): Stephen K. Wilson	
Date: 6/15/2018	
Organization: Resolute Environmental	
Phone: 678.398.9942	
Email: Stephen.Wilson@ResoluteEnv.com	

Georgia Power

Environmental & Natural Resources
241 Ralph McGill Boulevard NE
Atlanta, GA 30308-3374

June 13, 2018

Mr. Jason Metzger
Response & Remediation Program
Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, SE
Suite 1054 East
Atlanta, Georgia 30334

Subject: Voluntary Remediation Program Compliance Status Report
Georgia Power Company Plant Kraft
HSI Site No. 10415

Dear Mr. Metzger:

Attached please find one hard copy and two CD copies of the **Voluntary Remediation Program Compliance Status Report** for the Georgia Power Company Plant Kraft site located in Port Wentworth, Georgia.

Environmental investigations and soil remediation are complete at the site. Soil and groundwater have been certified in compliance with either Type 3 or Type 5 Risk Reduction Standards herein. We appreciate EPD's review of this Compliance Status Report, and are happy to meet or to provide additional information to advance EPD's review.

Thank you for your review and should you have any questions, please do not hesitate to contact me at (404) 506-7719 or Lea Millet at (404) 506-6235.

Sincerely,

Robert W. Mitchell, III
Environmental Affairs Manager

Attachments

Resolute
Environmental & Water Resources Consulting

1003 Weatherstone Parkway, Suite 320
Woodstock, GA 30188
Telephone: 678-398-9942
Fax: 888-881-8219

June 15, 2018

Ms. Lea Millet, P.G.
Georgia Power Company
Environmental Affairs, Bin 10221
241 Ralph McGill Boulevard
Atlanta, Georgia 30308

Subject: Voluntary Remediation Program Compliance Status Report
Georgia Power Company Plant Kraft
HSI Site 10415
155 Crossgate Road
Port Wentworth, Chatham County, Georgia

Dear Ms. Millet:

Resolute Environmental & Water Resources Consulting, LLC (Resolute) is pleased to submit this Voluntary Remediation Program (VRP) Compliance Status Report (CSR) for the former Savannah Electric - Plant Kraft (HSI Site 10415) in Port Wentworth, Georgia.

If you have any questions about this CSR, please contact either of the undersigned at (678) 398-9942.

Sincerely,
Resolute Environmental & Water Resources Consulting, LLC

Brian Steele, P.G.	Stephen K. Wilson, P.G.
Project Manager	Principal

VOLUNTARY REMEDIATION PROGRAM
COMPLIANCE STATUS REPORT

GEORGIA POWER COMPANY PLANT KRAFT
155 Crossgate Road
PORT WENTWORTH, CHATHAM COUNTY, GEORGIA
HSI Site 10415

Prepared for:

GEORGIA POWER COMPANY
Atlanta, Georgia

Prepared by:

Resolute Environmental & Water Resources Consulting, LLC
1003 Weatherstone Parkway, Suite 320
Woodstock, GA 30188

June 15, 2018

Certification of Compliance
Georgia Power Former Plant Kraft
(HSI Site 10415)

I certify under penalty of law that this report and the attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 a portion of this site is in compliance with the Type 5 risk reduction standards for soil, as illustrated on attached Figure A. The remaining portions of this site are in compliance with Type 3 risk reduction standards for soil for regulated substances associated with releases from this site. I have also determined that groundwater associated with this site complies with the purposes, provisions, and policies of the Voluntary Remediation Program Act through the use of a restrictive covenant to be placed on the property.

A D Mitchell

Aaron D. Mitchell
Environmental Affairs General Manager
Georgia Power Company

6/13/18
Date

Certification

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate 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 by me or by a subordinate working under my direction.

Stephen K. Wilson, P.G.
Registered Professional Geologist
Georgia Registration #000891

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EXECUTIVE SUMMARY

The property is located at 155 Crossgate Road, Port Wentworth, Chatham County, Georgia, approximately four miles east of Interstate Highway 95. The property consists of approximately 73.88 acres of land that is located on a bend in the Savannah River. The property is owned by Georgia Power Company (GPC) and was developed and utilized as a coal-fired and fuel-oil electrical power generation plant between 1958 and 2015. In 2015, decommissioning activities began.

The entire plant area was the focus of this investigation, which includes a previously investigated area in the northern corner of the plant site, known as the Northern Area HSI Site (HSI #10415). In late 1994, constituents consistent with wood-treating were discovered in this northern area, during construction of a loading dock along the Savannah River. In the fall of 1994, Savannah Electric performed a geotechnical investigation in this area. Analytical results from a soil sample obtained during this investigation indicated the presence of Total Petroleum Hydrocarbons (TPH). Subsequent investigations confirmed the presence of Semi-Volatile Organic Compounds (SVOCs) in groundwater, at concentrations greater than the Georgia Environmental Protection Division Hazardous Site Response Act Notification Concentrations (EPD HSRA NCs). The EPD was notified of this release, and on May 10, 1996, the site was listed on the Hazardous Site Inventory as site #10415. Routine groundwater monitoring has been performed in the Northern Area since 1998, with concentrations showing a decreasing trend. Recent groundwater sampling data from February 9, 2018, indicated one constituent, benzo(a)anthracene, was detected in groundwater and at a concentration below the Type 4 Risk Reduction Standards (RRS) approved by EPD for the site. Georgia Power requested closure for the Kraft Northern Area HSI Site on March 19, 2018.

As part of the process for decommissioning the Plant Kraft site, GPC contracted Resolute Environmental & Water Resources Consulting, LLC (Resolute) to perform a Phase II Environmental Assessment (ESA) of the plant site. The Phase II ESA included soil and groundwater sampling, in addition to soil excavation and delineation in select areas throughout Plant Kraft. The results of the Phase II ESA investigation indicated that concentrations of PAHs and certain metals were present above background levels; however, the concentrations were generally below regulatory HSRA NCs. Where concentrations exceeded the HSRA NCs, additional soil sampling was conducted to delineate the impact for subsequent excavation and off-site disposal. The soil excavation extended across the property boundary onto a limited area along the eastern edge and southeastern corner of the Georgia Ports Authority (GPA) property.

Soil confirmation samples were collected as part of the excavation activities performed at Plant Kraft. Where concentrations of regulated substances were detected in soil exceeding the levels for non-residential use (Type 3 RRS), they were over excavated until a confirmation sample result below the HSRA Type 3 RRS was achieved, or excavated to groundwater.

The central portion of the plant area contains the former ash pond, that was previously removed by excavation and backfilling to create a stormwater pond. The ash pond closure was completed in August 2016, and the closure certification is attached.

Groundwater sampling has been conducted at the site, and most constituents detected were below their respective Type 3 RRS. However, arsenic concentrations from one monitoring well, KMW-02, exceed the HSRA Type 3 RRS of 10 micrograms per liter (µg/L). Radium has also been detected in four monitoring wells (KMW-01, and KMW-05 through KMW-07) at concentrations that exceed the drinking water standard of 5 picoCuries per liter (pCi/L). The vertical and horizontal extents of the arsenic and radium have been delineated in groundwater. As part of the VRP, Georgia Power would propose to place an environmental covenant restricting groundwater use on the parcels impacted above applicable risk reduction standards.

The soil and groundwater in the southern portion of the plant site contains PAH impacts from an off-site Resource Conservation and Recovery Act (RCRA) property to the south, the Georgia Atlantic Port, LLC/former Atlantic Wood Industries (GAP/former AWI) site. That site has a RCRA Part B permit {GAD 084914787 and HW-055(D)} for management of hazardous waste associated with a surface impoundment (SI) closed as a landfill and is listed on the HSI as site #10018. Dense Non-Aqueous Phase Liquid (DNAPL) creosote from the AWI site has recently been detected in monitoring wells MW-35, MW-38, and MW-40 on the Plant Kraft site, and creosote has been encountered in shallow soil near the drainage canal along the southern property boundary. Because these impacts originate from the GAP/former AWI site and are being investigated under the oversight of EPD’s Hazardous Waste Program, these impacts are not addressed within this CSR for the Plant Kraft site.

The survey and legal description of the former Plant Kraft property reference three separate tracts, as set forth in Appendix A and attached Figure A. Tract 1 is scheduled to be donated to the Georgia Ports Authority by the end of 2018. After the excavation activities, the excavation confirmation samples from this tract were lower than the HSRA Type 3 RRS. The groundwater on this Tract is impacted by radium.

Georgia Power Company will retain Tracts 2 and 3. The soil excavation confirmation samples on these tracts were also less than Type 3 RRS criteria, with the exception of an area under the active western substation (Substation II) and adjoining road on Tract 2. The groundwater on Tract 2 contains arsenic and radium impacts as discussed above. Soil and groundwater on Tract 2 is also affected by impacts from the adjacent GAP/former AWI RCRA facility.

1.0 BACKGROUND

1.1 FACILITY DESCRIPTION

The property is located at 155 Crossgate Road, Port Wentworth, Chatham County, Georgia, approximately four miles east of Interstate Highway 95. The property consists of approximately 73.88 acres of land adjoining the Savannah River. A legal description of the property is presented in Appendix A. The property is bounded by Georgia Ports Authority property and the Savannah River to the north, the Savannah River to the northeast and east, railroad tracks to the west with residential properties farther west, and the Georgia Atlantic Port, LLC/former Atlantic Wood Industries (GAP/former AWI) site to the south (Figures 1 and 2). An unlined Chatham County drainage canal separates the Plant Kraft site from the GAP/former AWI property to the south. This canal originally turned north near the center of the site and extended to the Savannah River in that direction, forming the western property boundary near the northwest corner of the site. However, during development of the site in the 1950's, the southern canal was extended east to the Savannah River, and a portion of the northern section of the canal in the center of the site was filled.

1.2 PLANT AREA

The property is currently owned by the Georgia Power Company (GPC) and was previously owned by Savannah Electric Power Company (SEPCO) until the acquisition of SEPCO by GPC in 2006. The site is a former coal-fired and fuel-oil electric-generating facility that was utilized for electrical power generation between the 1958 and 2015. In 2015, GPC began the process of decommissioning the Plant site. Developed portions of the property consisted of a main plant building, paint shop, tank house, fleet maintenance shop, and a guard house. Additional improvements included fuel-oil and diesel above ground storage tanks (ASTs) located throughout the property, a coal pile, an ash pond, onsite landfill, low voltage switchyard, two substations (the eastern one near the power plant {Substation I} and the western one near the entrance {Substation II}), and a boiler cleaning waste basin. A number of paved and gravel roads traversed the property. One main paved parking area served the Plant and was located on the southern portion of the property. Many of the prior structures were removed during the decommissioning activities at the Plant site which were completed in May 2018. The primary remaining site features include the two substations, transmission structure, and asphalt driveway. The remaining portions of the Plant site have been regraded and restored with grass vegetation.

1.3 CONCEPTUAL SITE MODEL

1.3.1 Physical Setting

The site is located along the Savannah River, in the City of Port Wentworth, Georgia, which is a seaport for the nearby Atlantic Ocean. The River in this area is tidally influenced, with average daily tidal ranges of approximately 6 to 9 feet per day. The average elevation of the property is approximately 10 feet above mean sea level (MSL). The site is located on a bend in the River, with topography sloping north, northeast and east toward the River, and south toward the Chatham County canal. A three-dimensional (3-D) conceptual site model is presented as Figure 3.

1.3.2 Surface Water Flow

Surface water in the canal on the southern boundary of the site flows toward the east, where it terminates in the Savannah River. Because of this connection to the River, the canal is also tidally influenced by the River. Flow in the Savannah River is to the east and southeast, toward the Atlantic Ocean. On the property, depending upon the location, surface water runoff is either toward the Savannah River or toward the drainage canal along the southern property boundary of the site.

1.3.3 Subsurface Geology and Hydrogeology

The site is located in the Coastal Plain Physiographic Province, an area underlain by sandy soils and clay layers. In this area, groundwater occurs in the residual soil within the uppermost aquifer. This groundwater occurs under unconfined to locally semi-unconfined or confined conditions and is recharged by infiltration of precipitation. In general, groundwater flow is away from the upland recharge areas toward the lowland creeks, rivers, or marshes, where groundwater discharges. At this site, the conceptual groundwater flow model is flow from the western upland area towards the Savannah River to the east and north, with some flow to the drainage canal to the south. Conceptually, groundwater flow velocities are expected to be slow due to relatively flat topography, shallow groundwater, and low hydraulic gradients.

Given the development of the property to construct the power plant in the 1950's, shallow soils at the site may be a combination of native alluvial material, as well as fill sands and clays. Former employees at the site have indicated that dredge spoils from the Savannah River were placed on the eastern portion of the site prior to its development as a power plant. Based on a pre-development aerial photograph dated 1951, the surface area of the site to the east of the Northern Canal appears to be sand or fill sand.

Underlying a layer of topsoil and/or fill material, alluvial sand is present across the site, and consists of approximately 24 to 37 feet of fine-to-coarse grained, loose, sand and silty sand with numerous, discontinuous layers and lenses of silty sand, sandy silt, and silty clay. The silt and clay layers range from 1 to 2 inches to several feet in thickness. These shallow sands and clays comprise the surficial aquifer at the site, which is locally confined or semi-confined by a clay layer along the northern property boundary with the GPA parcel.

The shallow sands along the Georgia coast are mined for their heavy mineral content. The Georgia Department of Mines, Mining, and Geology produced a publication, *Heavy Mineral Bearing Sand of the Coastal Region of Georgia* (1967), describing these sands and their mineral content based on samples that they collected and analyzed from borings. (Selected pages from this reference are presented in Appendix B). Four of these borings (#19-#22) were advanced in Chatham County, and monazite, a thorium-rich mineral, was detected in eight of the thirteen shallow sand samples collected from these four borings. Thorium is the parent element of radium 228, detected in groundwater at the site. In boring #20, located in close proximity to Port Wentworth, two of the three shallow (0-9 feet) sand samples analyzed contained monazite at concentrations of approximately 100-200 milligrams per kilogram (mg/kg) by weight. Monazite dissolves in acidic solutions, leaving radium 228 as a product of the dissolution (*Heavy Minerals in Use*, Mange and Wright, 2007), and groundwater pH values in the wells with elevated radium 228 concentrations at the site ranged from approximately 4 to 5 pH standard units.

Underlying the alluvial sands and clays of the surficial aquifer is an olive-green and gray, dense, friable, micaceous, clayey to sandy silt interspersed with thin sandy layers, peat, and shell fragments. This layer is the Hawthorn Formation, a regional confining unit as described in *Geology and Ground-Water Resources of the Coastal Area of Georgia* (Clarke et al, 1990). The Hawthorn is a Miocene age unit, greater than 100 feet thick, that separates the local surficial aquifer from the next deeper confined aquifer, known as the Upper Brunswick Aquifer. The Hawthorn represents a confining layer underneath the site, preventing downward migration of surficial groundwater. The confining layer was encountered from 24 to 37 feet below land surface across the site during the 2016 through 2017 site investigation, and during the 1998 CSR assessment.

1.4 PRIOR ASSESSMENT AND REMOVAL ACTIVITIES

1.4.1 1998 Compliance Status Report

Just east of where the Northern Canal meets the Savannah River, semi-volatile organic compounds (SVOCs) were detected in late 1994, during construction of a loading dock along the Savannah River. Savannah Electric subsequently performed a geotechnical investigation in this area and identified a black tar-like substance in one boring, at a depth of approximately 15 feet below land surface (bls) and below the static depth to groundwater. Analytical results from a soil sample obtained from this boring indicated the presence of Total Petroleum Hydrocarbons (TPH). Subsequent investigations confirmed the presence of SVOCs in groundwater. The EPD was notified of this release, and on May 10, 1996, the site was entered into the HSI as site #10415, and is commonly referenced as the “Kraft Northern Area.”

Assessment of the site was performed by the Earth Science and Environmental Engineering division of Southern Company Services (SCS) in preparation of the 1998 Compliance Status Report (CSR). This site assessment focused on three known site issues at the time: 1) SVOCs in groundwater and the tar-like substance in saturated soil (below the groundwater surface) in the northern area near the northern canal, 2) creosote and related SVOCs in soil and groundwater associated with the adjoining GAP/former AWI RCRA site, and 3) a diesel fuel release that may have contributed SVOCs to groundwater.

The 1998 CSR and subsequent Addenda documented the presence of creosote and associated SVOCs in saturated soil (below groundwater) along the southern property boundary and along the Abandoned Canal that connected the current Northern Canal with the GAP/former AWI RCRA site to the south. However, the CSR and Addenda did not document and contiguously link, to EPD’s satisfaction, the connection between the creosote SVOCs in saturated soil along the Abandoned Canal (associated with the GAP/former AWI site to the south) to the SVOCs in groundwater in the Kraft Northern Area. Based on this outcome, a Corrective Action Plan (CAP) was developed for the Kraft Northern Area, and groundwater monitoring has been performed in selected wells for the past 20 years. The results of the most recent groundwater monitoring event and comparison with the Risk Reduction Standard (RRS) criteria are presented in Sections 3.4.2 and 4.2, respectively.

1.4.2 GAP/Former AWI RCRA Site Assessment

Prior to GAP's acquisition of the AWI site in 2015, ten monitoring wells (MW-33 through MW-35, MW-37 through MW-38, MW-39A and 39B, and MW-40 through MW-42) were installed by AWI on the southern portion of Plant Kraft as part of AWI's investigation of creosote and associated PAHs in groundwater that migrated from the AWI site onto the Plant Kraft property. The GAP/former AWI site is a former manufacturing facility that operated from 1919 to early 2008, pressure treating forest products with creosote and pentachlorophenol. The site was acquired by GAP in 2014. The facility has a Resource Conservation and Recovery Act (RCRA) Part B permit {GAD 084914787 and HW-055(D)} for management of hazardous waste associated with a surface impoundment (SI) closed as a landfill. The site is listed on the Georgia HSI as site #10018; however, the site is classified as a Class IV site in which obligations under HSRA are deferred in light of the existing RCRA permit. The ten GAP/former AWI wells located on the Plant Kraft site are monitored for Dense Non-Aqueous Phase Liquid (DNAPL) by GAP's consultant, Arrowood Environmental Group, Inc. (Arrowood). Measurable DNAPL was recently (2018) reported by Arrowood in monitoring well MW-35 (0.54 ft.) with traces in wells MW-38 and MW-40.

An important site characteristic is the Chatham County Canal along the southern property boundary that separates the site from the AWI site. Currently, the canal extends from the western edge of the site to the eastern edge, where it discharges into the Savannah River (Figure 2). However, prior to construction of the site in the 1960s, the canal originally extended from the west to approximately the center of the site, where it turned north just east of the former AST and extended to the Savannah River to the north. The northernmost section of the Northern Canal still exists and adjoins the site's western property boundary with the GPA property. The remaining section of the Abandoned Canal was filled during site development in the 1950's, when the Chatham County Canal was extended to the Savannah River to the east.

Creosote was recently encountered in Plant Kraft soils near the banks of the Chatham County Canal during grading activities associated with the Plant Kraft closure. Georgia Power worked with GAP to properly manage impacted soils disturbed during the Plant Kraft restoration activities. Soil and groundwater sampling for creosote and associated PAHs related to the GAP/former AWI site were not conducted by GPC in the southern portion of the site as part of this CSR.

1.4.3 2008 Boiler Cleaning Waste Basin Sediment Removal

GPC retained SBX Technologies, LLC (SBX) to remove sediment from the Boiler Cleaning Waste Basin (BCWB) at Plant Kraft. According to the SBX BCWS Removal Report, dated March 24, 2008, SBX performed the removal action of the BCWB between November 7, 2007, and February 26, 2008. A total of 8,563.27 tons of material was excavated by SBX. Confirmation sample results were reported below applicable HSRA RRS criteria. Backfill material for the former basin consisted of fill soil, clay, and topsoil.

The excavated materials were transported to and disposed at Waste Management's Superior Landfill, in Savannah, Georgia. The excavation completion report for the BCWB is presented in Appendix C.

1.4.4 2015 Ash Pond Removal

In 2015, GPC retained a contractor to excavate the ash pond. The ash pond was excavated and backfilled between June 2015 and August 2016. Generally, the ash pond was excavated to 6 inches below visually clean within its permitted boundaries. To the west of the closed former ash pond, Georgia Power operates and will continue to operate Substation II. The substation and road were built over a layer of ash. The material remains in place, serving as beneficial fill under the substation and road.

The material excavated from the former ash pond was transported to the Republic Regional Industrial Landfill in Port Wentworth, Georgia for off-site disposal. The excavation was partially backfilled and graded to create a storm water management pond. The former ash pond certification closure report is presented in Appendix D.

2.0 ASSESSMENT AND DELINEATION OF IMPACTED SOIL

In anticipation of decommissioning the Plant site, GPC contracted Resolute to perform a Phase II ESA in November 2016. During the initial assessment activities, the constituents of interest (COI) varied by location on the plant, because of the different potential sources or applications that may have resulted in a release of a regulated substance within each area (e.g. Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) from fuel oil above ground storage tanks (ASTs)). Table 1 details the COI for each location.

The assessment approach divided the plant into three areas, shown in Figure 4: the “North Assessment Area” north of the railroad tracks including the coal pile, inert landfill, Northern Area HSI site and other areas; the “Southern Assessment Area” south of the railroad tracks consisting of the main plant area, eastern switchyard, storage buildings and parking areas; and the “Western Assessment Area” consisting of fuel oil ASTs, former ash ponds, BCWB, and western switchyard. During the Phase II ESA, Direct Push Technology (DPT) was used to install borings, and collect soil and groundwater samples from the following areas:

- Kraft Northern Area
- Tank house and maintenance shed diesel ASTs and septic tanks
- Coal pile runoff ponds
- Fuel oil ASTs and piping at tank house, river equipment lot, and main plant
- Main plant and coal pile septic fields; coal pile surfactant ASTs
- Paint shop sink
- Original construction storage buildings
- Mill rejects storage – riverside
- Transmission line (sandblasting area)
- Gasoline USTs and septic tank area
- Former ash pond area
- Parking lot area
- Potential buried drum area

The Phase II ESA included soil and groundwater sampling in the areas summarized above shown on Figures 4 through 4d, and identified by number in Table 1. The sampling procedures employed by Resolute are described in the following sections.

The field activities within each assessment area are outlined below. Sampling analytical parameters, procedures, and methodology are included in Appendix E. Soil classification logs are presented in Appendix F. Figures showing sample locations are presented in Figures 4a through 4d.

2.1 PHASE II METHODS

2.1.1 Soil Methods

Each soil interval was screened with a PID for the potential presence of VOCs. Soil samples were collected for laboratory analysis from the interval with the highest PID response. If a PID response was not observed, the soil sample was collected from the interval with the greatest visual indication of impact. If the soil boring did not show visual indications of impact, the soil sample was collected from the shallowest interval. The laboratory analyses for the samples are presented in Table 1.

2.1.2 Groundwater Methods

A DPT boring was advanced and extended at least five (5) feet below groundwater. A retractable screen on the DPT rod was used to collect a groundwater sample. The laboratory analyses for the groundwater samples are presented in Table 1. For the metals analyses, groundwater samples were field-filtered with a 0.45-micron in-line filter.

2.2 ASSESSMENT APPROACH OF SITE WIDE PHASE II SOIL SAMPLING

2.2.1 Northern Area Hazardous Site Inventory (HSI) Site - November 2016

As previously described, the Kraft Northern Area (Location 51 on Figure 4) was previously assessed in the 1990's and is currently in a groundwater monitoring program for (SVOCs). During the 2016 Phase II, nine soil borings were advanced on a 30' x 30' grid, as shown on Figure 4a, hydraulically side-gradient and upgradient of Monitoring Well MW-15D, which historically has had the highest concentrations of SVOCs in groundwater in the Northern HSI Area. Soil samples in this area were collected from the soil borings in the following intervals: 0-2', 2-6', and 6-10' below ground surface, where those zones were not saturated. Analyses performed in this area are presented in Table 1. Arsenic and barium were detected in soil above Type 3 RRS criteria (Appendix G).

2.2.2 Tank House and Maintenance Shed Diesel ASTs and Septic Tank

The maintenance shed and tank house each had a diesel AST, (Locations 6 and 7 on Figure 4), and the maintenance shed had a septic tank (Location 16 on Figure 4). For the diesel ASTs (Locations 6 & 7), one DPT boring was advanced from 0-4 feet at each location, as shown on Figure 4b. For the septic tank (Location 16), one DPT boring was advanced through the septic field into groundwater, as shown on Figure 4b. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria (Appendix G).

2.2.3 Coal Pile Runoff Ponds

The coal pile runoff ponds (Location 36 on Figure 4) were assessed using a 100' x 100' grid overlaid on the ponds, adjoining coal pile and mill rejects pile. Five (5) DPT borings were advanced into groundwater around each of the two coal pile runoff ponds, and three (3) additional soil boring DPTs were advanced to a depth of four (4) feet at locations in and around the ponds for a total of eight (8) borings (Figure

4a). Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria, except for lead in groundwater in a DPT sample. A subsequent monitoring well at location GW-36 did not confirm the presence of lead in groundwater (Appendix G).

2.2.4 Coal Pile

Following removal, the former coal pile (Location 37 on Figure 4) in the Northern Assessment Area was assessed using a 100' x 100' grid overlaid on the area. Twenty-nine DPT borings were advanced to a depth of 4 feet bls (Figure 4b). Analyses performed in this area are presented in Table 1. Analytes were not detected in soil above Type 3 RRS criteria except in one boring that was not accessible during the assessment. Subsequent sampling during the excavation detected impact by regulated substances above Type 3 RRS for soil that were then excavated (Section 2.4.7).

2.2.5 Fuel Oil ASTs and Piping at Tank House, River Equipment Lot, and Main Plant

Number 6 fuel oil tanks were present at Locations 8 and 9, and a leak in the Number 6 fuel oil piping reportedly occurred at Location 38 (Figure 4). A #2 diesel fuel oil tank was also present at Location 10 (Figure 4). At each of these four locations, one DPT boring was advanced into groundwater. In addition, soil samples were collected from the berms (Location 5) around the ASTs at Locations 8 and 10.

Four additional DPT borings were subsequently advanced around the original boring at Location 8, in order to delineate Total Petroleum Hydrocarbons (TPH) detected from the original sample location. The boring locations are shown on Figure 4b. Analyses performed in this area are presented in Table 1. TPH-Diesel Range Organics (TPH-DRO) were detected above 100 mg/kg in soil around Locations 8 and 10, and arsenic, barium and beryllium were detected in soil above Type 3 RRS criteria in borings around Location 50 (Appendix G).

2.2.6 Main Plant and Coal Pile Septic Fields; Coal Pile Surfactant ASTs

One DPT boring was advanced into groundwater at the coal pile building septic field (Location 17 on Figure 4) and one at the main plant septic field (Location 21 on Figure 4). Both locations are shown on Figure 4b. At the former coal pile surfactant ASTs (Locations 27 and 3 on Figure 4), one DPT boring was advanced to groundwater at each location, as shown on Figure 4b. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria (Appendix G).

2.2.7 Paint Shop Sink

The former paint shop sink drained onto the ground to the south of the paint shop building (Location 31 on Figure 4). Two DPT borings were advanced into groundwater along the southern side of the former paint shop building and are shown on Figure 4c. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria (Appendix G).

2.2.8 ASTs and Car Wash

ASTs were present at Locations 4, 5, 12, 11 & 49, and a car wash was present at Location 26 (Figure 4). A diesel AST was at Location 4, a fuel oil additive AST at 11, diesel and acid/caustic ASTs at Locations 5 and 12, and an overflow fuel tank at Location 49. For the ASTs at Locations 4, 11, and 49, as well as the car wash at Location 26, one DPT boring was advanced from 0-4 feet at each location, as shown on Figure 4c. For the diesel AST at Location 5, as well as the sump and the acid/caustic ASTs at Location 12, one DPT boring was advanced into groundwater and are shown on Figure 4c. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria (Appendix G).

2.2.9 Original Construction Storage Buildings

At the original construction storage buildings (Location 46 on Figure 4), three DPT borings were advanced from 0-4 feet at the approximate locations shown on Figure 4c. A fourth DPT boring was advanced into groundwater. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3 RRS criteria (Appendix G).

2.2.10 Mill Rejects - Riverside

To evaluate the potential presence of mill rejects (material that was received in a shipment of coal that was not suitable for combustion, often pyrite and other minerals) (Location 44 on Figure 4), Resolute established a biased grid over the location and collected shallow soil samples (0-4 feet) at the intersection of the grid nodes located on a 30’ x 100’ grid (Figure 4c). Resolute performed 10 soil borings to assess the potential presence and delineation of mill rejects. The soil intervals were visually observed and logged by a Resolute Staff Professional, to determine if coal or mill rejects were present in the borings.

2.2.11 Transmission Line (Sandblasting Area)

To evaluate the potential presence of buried sandblasting material (Location 45 on Figure 4), Resolute advanced four DPT borings from 0-4 feet as shown on Figure 4c. Analyses performed in this area are presented in Table 1. Antimony, arsenic, nickel, and thallium were detected in soil above Type 3 RRS criteria (Appendix G).

2.2.12 Gasoline USTs and Septic Tanks

Two gasoline USTs (Locations 1 and 2) and three septic tanks (Locations 18, 19, & 47) were identified in the southern assessment area (Figure 4). Location 2 was reportedly closed, and assessment at this location was not performed. At each of the four other locations, one DPT boring was advanced into groundwater (Figure 4c). Analyses performed in this area are presented in Table 1. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil or groundwater above Type 3

RRS criteria, except for lead in groundwater in a DPT sample. A subsequent monitoring well at location GW-18 did not confirm the presence of lead in groundwater (Appendix G).

2.2.13 Ash Location at River Equipment Lot

At Location 15 (Figure 4), where ash was reportedly placed, five DPT borings were advanced from 0-4 feet to observe the depth and thickness of buried ash, which had been reported as present in the area. Each soil interval was visually observed and logged by a Resolute Staff Professional. Boring locations are shown on Figure 4b. If ash was observed at the bottom of the interval (4 feet), the boring was advanced another 4 feet and the soil interval was observed. This process continued until the bottom of the ash was located. The ash was sampled for laboratory analyses from each interval where it was encountered. Analyses performed in this area are presented in Table 1. Analytes were not detected in soil above Type 3 RRS criteria (Appendix G).

2.2.14 Excavation Parking Lot

During previous excavation activities and through interviews with past and present GPC employees, ash was reported to be present in the area around the current lay-down yard. A 50-foot grid was established, and DPT boring were advanced to depths of 12 to 16 feet, depending on depth to groundwater and soils observed. Each soil interval was visually observed and logged by a Resolute Staff Professional. In areas that ash was observed above the groundwater surface, adjacent borings were installed to delineate the ash horizontally. Refer to Figure 5 for the parking lot DPT boring locations.

2.2.15 Inert Landfill

The former inert landfill (Location 35 on Figure 4) was not assessed during the 2016 Phase II because it was scheduled for excavation during the Plant decommissioning.

2.2.16 Potential Buried Drums - Storage Building Expansion

Ground Penetrating Radar (GPR) was utilized to evaluate the reported presence of buried drums beneath or near the northeast corner of the storage building expansion (Location 23 on Figure 4). Based on the results of the GPR, there was an indication of soil disturbance. A series of test pits were performed in the area, and one drum lid was found, however, no other drums or other visual indications of soil impacts were observed in the test pits.

2.2.17 Low Voltage Switchyard

The low voltage switchyard (Location 48 on Figure 4) was evaluated for the presence of polychlorinated biphenyls (PCBs) in 2017. The presence of PCBs in the switchyard was verbally reported to EPD on June 27, 2017. PCB-impacted soils were excavated and confirmation samples were collected by SBX Technologies (SBX) between June and August 2017. The excavation completion report is presented in Appendix H.

2.3 PHASE II SOIL RESULTS

The results of the site-wide Phase II soil assessment are summarized in data tables presented in Appendix G. Areas in which Phase II soil samples exceeded non-residential RRS were identified for excavation and off-site disposal during the Plant decommissioning process. The following areas were identified for excavation:

- Northern Area soil near inert landfill
- Fuel-oil AST pad and berms near southeast corner of the former ash pond
- Soils beneath the former coal pile
- Transmission line right-of-way and historical sandblasting area

2.4 SOIL EXCAVATION ACTIVITIES

As part of the Plant Kraft decommissioning, selected areas of the site were identified by GPC for excavation and off-site disposal in addition to those areas identified in the Phase II. The following areas were excavated as a result of either Phase II soil results or planned Plant decommissioning.

- Inert landfill
- Areas surrounding the inert landfill
- Northern Canal
- AST pad and former southern ash pond area
- Eastern former ash pond
- Coal pile
- Transmission line right-of-way and historical sandblasting area
- Road and railbed area south of Plant Kraft Substation I
- Low voltage switchyard
- Substation I road
- Excavation Parking Lot

Excavated material was shipped to Superior Landfill, and for the low voltage switchyard, to the Waste Management facility in Emelle, Alabama, Subtitle D and C facilities, respectively, for offsite disposal. Resolute observed and documented the excavation activities and collected excavation confirmation samples. Throughout the site, where the excavations extended to groundwater, soil confirmation samples were not collected. Sampling analytical parameters, procedures, and methodology are included in Appendix E. Confirmation sampling results are summarized in Table 2. Copies of waste manifests are included in Appendix I.

The following sections present the excavation observations and sampling approach, and the overall excavation extents are shown on Figure 6. Laboratory results are included in Appendix J.

2.4.1 Inert Landfill

The inert landfill, approximately 40,000 square feet and 15 feet above adjacent ground surface, (Location 35 on Figure 4) was excavated, and the waste materials were segregated prior to transportation and off-site disposal. Wastes inconsistent with inert materials were observed in the landfill during excavation, such as buried drums, piping and petroleum impacted soil. The buried drums were verbally reported to the EPD on June 27, 2017. Resolute collected excavation confirmation soil samples below the inert landfill based on the intersecting points along a 30-foot by 30-foot grid superimposed over the former inert landfill footprint (Figure 7). Excavation depths varied significantly because the inert landfill was topographically elevated above the surrounding area. Because the excavation bottom was slightly sloping, the excavation confirmation samples were primarily "bottom" samples, and not "sidewall" samples. Where the excavation extended to groundwater, soil confirmation samples were not collected. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2 and summarized on Figure 7. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.2 Areas Surrounding the Inert Landfill

Coal ash and mill rejects were encountered and excavated in areas surrounding the inert landfill. The road beds located east and south of the landfill were removed along with the drainage swale to the east. Resolute collected excavation confirmation soil samples at depths of approximately 4 to 9 feet below land surface based on the intersecting points along a 30-foot by 30-foot grid superimposed over the areas surrounding the inert landfill (Figures 7 and 8). Excavation depths varied significantly because the topography surrounding the inert landfill varied. Because the excavation bottom was slightly sloping, the excavation confirmation samples were primarily "bottom" samples, and not "sidewall" samples. Where the excavation extended to groundwater, soil confirmation samples were not collected. The samples were placed in laboratory containers for analysis. Analysis performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

During excavation of the Northern Area inert landfill, ash was discovered to be trending to the north and the east beyond the extent of the landfill, toward the Savannah River revetment, a form of seawall the protects the riverbank from erosion; in this case, a combination of rip rap and concrete-impregnated fabric along the riverbank. Test pits were dug in these areas to assess the extent and volume of the ash. Each soil interval was visually observed and logged by a Resolute staff professional. This process continued until the bottom of the ash was located. Depths for the areas ranged from 4 feet bls to the southeast, 5 feet bls in the middle, and 3 feet to the northwest in relation to the revetment. Ash was excavated in these areas up to the Savannah River revetment. Confirmation samples were collected on a linear pattern from the unsaturated soils beneath these areas upon completion of the excavation on a 30-foot spacing (Figure 7 and 8). Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.3 Northern Canal

To the west of the inert landfill and to the north of the former ash pond lies the Northern Canal that separates GPC Plant Kraft property from the GPA property to the north. During excavation of the inert landfill, ash was found to be trending off-site to the west. Further investigation and delineation mapped ash deposits on the adjacent GPA property and along the sides of the drainage canal. Excavation extents and confirmation sample locations on the Plant Kraft property and GPA property are shown on Figures 7 through 9. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.4 Landfill Road

Mill rejects were identified underneath the road bed of the landfill access road. This area, from south of the landfill to the rail lines (Location 50 on Figure 4), was excavated for off-site disposal. Resolute collected excavation confirmation soil samples during the excavation based on the intersecting points along a 30-foot by 30-foot grid superimposed over the road bed upon completion of the excavation. (Figures 8 and 10). The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.5 AST Pad and Southern Former Ash Pond

The AST Pad area and the Southern former ash pond area (Location 8, 34 and 50 on Figure 4) were excavated for off-site disposal. Buried ash was observed during excavation, and confirmation samples were collected on a grid pattern from the unsaturated soils beneath the area upon completion of the excavation. Resolute collected excavation confirmation floor and sidewall soil samples during the excavation based on the intersecting points along a 30-foot by 30-foot grid superimposed over the AST and Southern former ash pond areas. Final excavation confirmation sample results are shown on Figure 11. The samples were placed in laboratory containers for analysis. Analysis performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.6 Eastern Former Ash Pond

Buried ash was observed during excavation of the Eastern former ash pond area (Location 50 Figure 4), and confirmation samples were collected on a grid pattern from the unsaturated soils beneath the area upon completion of the excavation. Resolute collected shallow soil samples during the excavation based on the intersecting points along a 30-foot by 30-foot grid superimposed over the Eastern former ash pond area. Final excavation confirmation sample results are shown on Figure 12. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.7 Coal Pile

Coal ash was identified in the southwest corner of the coal pile footprint (Location 31 on Figure 4), as confirmed in the DPT borings shown on Figure 4b. Resolute collected final excavation confirmation samples from this area, which are shown on Figure 13. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.8 Transmission Line Right-of-Way and Historical Sandblasting Area

Sandblasting material waste was observed in the southeastern corner of Plant Kraft (Location 28 on Figure 4), as confirmed in the Phase II DPT borings shown on Figure 4c. This area was excavated, and final excavation confirmation samples were collected (Figure 14). The samples were placed in laboratory containers for analysis. Analyses performed in this area are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.9 Road and Railbed Area South of Kraft Substation

The road bed south of the main Plant Kraft Substation (Location 25 on Figure 4), was excavated for off-site disposal. Buried ash was observed and removed during excavation, and confirmation samples were collected on a grid pattern from the unsaturated soils beneath the area upon completion of the excavation. Resolute collected excavation confirmation soil samples during the excavation based on the intersecting points along a 30-foot by 30-foot grid superimposed over the road bed. Final excavation confirmation sample results are shown on Figure 15. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.10 Substation I Road

Mill reject material was observed to the northeast of former Substation I. SBX excavated this area, and final excavation confirmation sample results are shown on Figure 16. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.11 Excavation Parking Lot

DPT borings delineated ash greater than 6 inches in thickness for excavation. Final excavation confirmation sample results are shown on Figure 17. The samples were placed in laboratory containers for analysis. Analyses performed in this area and results are presented in Table 2. After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

2.4.12 GAP/Former AWI RCRA Site

GPC did not conduct soil or sediment sampling as part of this CSR investigation. However, creosote was encountered in shallow soil near the Chatham County Canal by a GPC contractor during soil grading activities associated with the Plant Kraft closure and is suspected to exist between this area and GAP/former AWI site.

2.5 DISCUSSION OF SOIL RESULTS

2.5.1 Phase II and Soil Excavation Areas

As discussed in Sections 2.2 and 2.3, a Phase II ESA was conducted, and soil samples were collected and analyzed. Areas in which samples exceeded their respective Type 3 RRS were subsequently excavated and confirmation samples collected on grid patterns, as described in Section 2.4. The excavations continued until confirmation samples were lower than Type 3 RRS or until groundwater was encountered. (Soil samples were not collected below groundwater). After completion of the soil excavation activities, the soil excavation confirmation sample results were below their respective Type 3 RRS.

The creosote encountered in shallow soil near the Chatham County Canal, and any remaining creosote on site or in the Chatham County Canal, are considered part of the GAP/former AWI RCRA site and are not addressed in this CSR.

2.5.2 Other Areas

2.5.2.1 Former Boiler Cleaning Waste Basin and Former Ash Pond

The former boiler cleaning waste basin (Location 34 on Figure 4) was previously excavated and closed in 2008 as described in Section 1.4.3. The excavation completion report prepared by SBX provided soil confirmation sample results (Appendix C). Based on the results of the confirmation samples in SBX's report, the area is in compliance with HSRA Type 3 RRS criteria.

The former ash pond was also excavated as part of Plant Kraft closure activities. Ash pond excavation was to "visually clean" plus six (6) more inches in the ash pond permitted boundary. To the west of the closed former ash pond, Georgia Power operates and will continue to operate Substation II. The substation and road were built over a layer of ash. The material remains in place, serving as beneficial fill under the substation and road. The material excavated from the former ash pond was transported off-site to approved landfills for disposal. The groundwater beneath these former ponds has been assessed by groundwater monitoring wells KMW-01, -2, and -4 through -12.

2.5.2.2 Low Voltage Switchyard

Based on the results of the excavation confirmation samples presented in SBX's report in Appendix H, the confirmation samples complied with Type 3 RRS.

3.0 ASSESSMENT AND DELINEATION OF IMPACTED GROUNDWATER

3.1 SUMMARY OF GROUNDWATER ASSESSMENT APPROACH

Groundwater assessment and evaluation of the site was generally performed in phases. Groundwater samples were collected from the DPT borings performed as part of the Phase II ESA conducted by Resolute in 2016, as discussed in Section 3. Routine groundwater monitoring has been ongoing in the Northern Area HSI Site since 1998. A series of monitoring wells in the former ash pond vicinity were installed and sampled by Resolute between 2016 and 2018, as described in Section 3.3. Finally, the groundwater in the southern area of the site has undergone routine, semi-annual groundwater monitoring, performed by Arrowood for Georgia Atlantic Port, as part of the southern adjacent GAP/former AWI RCRA Site. The results from the Phase II and Northern Area HSI Site groundwater sampling assessments are discussed in the following sections. Sampling analytical parameters, procedures, and methodology are included in Appendix E. Soil classification and well construction diagrams are presented in Appendix F. Laboratory results are included in Appendix J. Groundwater sample and well development purge parameters are included in Appendix K. Groundwater results associated with the adjacent GAP/former AWI RCRA Site are not included in this CSR Report.

3.1.1 Phase II ESA Groundwater Assessment Activities

Between November 2016 and December 2016, Resolute collected groundwater samples as part of the Phase II ESA conducted at Plant Kraft. Resolute collected 22 groundwater samples, of which 20 were collected using a retractable screen on a DPT drilling rod, and two (2) were collected from temporary monitoring wells installed in December 2016 (SB-36-14/GW-36 and SB-18/GW-18). Groundwater samples from both direct-push and temporary monitoring wells were used to assess the potential presence and extent of regulated constituents in groundwater. At the two locations where temporary groundwater monitoring wells were installed at former DPT locations (SB-36-14/GW-36 and SB-18/GW-18), only the analytical data from the temporary groundwater monitoring wells were utilized in the final determination of the regulated substances in groundwater. Table 1 details the sampling constituents and rationale for each location investigated during the Phase II ESA. Figures showing sample locations are presented in Figures 4a through 4d, and analytical results are presented in Appendix G.

3.1.2 Northern Area HSI Site

The Northern Area HSI Site has been routinely monitored since 1998, and semi-annual groundwater monitoring reports have been submitted to Georgia EPD. According to the Addendum No. 4 of the HSRA CSR report for the Northern Area HSI Site, prepared by Earth Science and Environmental Engineering, monitoring wells MW-15, 15A, 15B, 15C, 15D and 15E, were previously installed by Savannah Electric in the northern area of the site. Since 1998, the monitoring wells have been analyzed for PAHs, initially discovered in 1994. Monitoring wells MW-15, 15A, 15B, 15C, 15D and 15E were abandoned in April 2017 due to the soil excavation that was performed in that area. Resolute reinstalled replacement monitoring wells, MW-15A(R), 15C(R), and 15D(R), in July 2017. Groundwater sampling was most recently conducted on February 9, 2018 from monitoring well MW-15D(R), by Resolute. Results from the recent sampling event are shown on Appendix L and Figure 18. The results are in compliance with the Type 4 RRS calculated for the site and accepted by EPD.

3.1.3 Former Ash Pond Assessment

Groundwater monitoring wells (KMW-01, KMW-02, and KMW-05 through KMW-07), were installed in July 2016 in former ash pond area of the plant. As Plant Kraft had ceased generation prior to October 19, 2015, the exemption date in the Federal Coal Combustion Residuals (CCR) Rule, and the ash pond had been excavated prior to the November 22, 2016 effective date of the Georgia CCR Rules, Georgia Power requested, and EPD agreed, that the former ash pond and remainder of the site be regulated under HSRA. A copy of the EPD letter is presented in Appendix D. The site continued to use the same HSI number as the Northern Area HSI Site (HSI #10415).

In July 2017, five (5) monitoring wells (KMW-08 through KMW-12), were installed to further assess the vertical and horizontal extent of arsenic and radium in groundwater at the site. In January 2018, two (2) additional monitoring wells (KMW-03 and KMW-13) were installed to the north of the former ash pond, on the GPA property. Groundwater sampling results from the January 2017, July and August 2017, and February 2018 sampling events are shown on Figures 19 through 21. KMW-01 and KMW-12 were resampled for radium in May 2018, with results shown on Figure 21.

3.2 MONITORING WELL INSTALLATION AND DEVELOPMENT METHODS

Prior to the installation of permanent monitoring wells, soil borings were advanced and soil samples were obtained and classified at four-foot intervals utilizing DPT and sonic drilling technology. Soils consisted generally of fine to medium sands with an occasional clayey sand layer. Clay layers encountered during drilling and DPT activities were typically around 6 to 8 feet below ground surface (bgs), and ranged in thickness from 2 feet to 12 feet. Soil classification logs are presented in Appendix F.

The permanent groundwater monitoring wells were generally advanced to a depth of 30 feet and were constructed utilizing schedule-40, threaded PVC, with 2-inch inner diameter. Ten feet of 0.010 slot, pre-packed screen was installed and schedule 40 threaded PVC riser was installed to a minimum two feet above ground surface. The well was completed with additional sand pack extending above the screened interval by two feet, capped with a bentonite seal, and grouted to ground surface. The monitoring wells included two-foot by two-foot concrete pads, and locking above-grade well covers. Well construction diagrams are presented in Appendix F. Groundwater well development logs are presented in Appendix K.

3.3 RESULTS OF CHARACTERIZATION OF SITE GEOLOGY AND HYDROGEOLOGY

3.3.1 Site Geology and Hydrogeology

Based on the borings logged for monitoring well installation at the site, three cross-section profiles were created, through the locations presented in Figure 22. Cross-sections A-A’, B-B’, and C-C’ (Figures 23 through 25) illustrate the subsurface geology.

As previously described in the Conceptual Site Model Geology Section, the Plant Kraft site is underlain by a surficial aquifer approximately 24 to 37 feet thick, which is comprised of sands with locally continuous to discontinuous clay layers. Along the northern property boundary with GPA, the surficial sand aquifer was overlain by a locally-confining or semi-confining clay layer. A regional confining unit, the Hawthorn Formation, underlies the surficial aquifer.

During this CSR assessment and prior investigations, the Hawthorn Formation was encountered in numerous locations on site and penetrated in two locations (KMW-01D and KMW-02D) to confirm the thickness reported in literature. Boring location KMW-01D was drilled through the Hawthorn from 36 to 140 feet bgs, where the boring was terminated before reaching the bottom of the confining unit. The soils encountered consisted of dry, sandy clayey silt to silty very fine sand with a total thickness exceeding 104 feet. In boring KMW-02D, the Hawthorn Formation was penetrated from 33.5 feet to 60 feet bgs, where the boring was again terminated before reaching the bottom of the Hawthorn. In this boring, the Hawthorn soils consisted of dry, silty very fine sand to sandy silty clay with a total thickness exceeding 26 feet. As previously stated, the Hawthorn represents a confining layer underneath the site, preventing downward migration of surficial groundwater and defining the vertical extent of impacted groundwater.

3.3.2 Groundwater Gradient and Flow Direction

In 2016, the grounwater elevations of six on-site GPC monitoring wells (KMW-01, KMW-02, KMW-04 thru KMW-07), six on-site GAP/former AWI monitoring wells (MW-33 thru MW-35, MW-37 thru MW-39A), and five on-site Northern Area HSI Site monitoring wells (MW-15, 15A, 15C, 15D, and 15E), were measured. Depths to groundwater were measured in the wells for the purpose of calculating relative groundwater elevations and estimating groundwater flow direction at the property (Table 3). Potentiometric surface maps were created for three events, August 10, 2016, September 1, 2016, and January 30, 2017, and are included as Figures 26 through 28.

Monitoring wells MW-15, 15A, 15C, 15D, and 15E were abandoned in April 2017 during the excavation of the inert landfill, and monitoring wells MW-15A(R), 15C(R), and 15D(R) were reinstalled in addition to five (5) monitoring wells (KMW-08 through KMW-12) installed in July 2017, and two (2) monitoring wells (KMW-03 and KMW-13) installed in January 2018. Depths to groundwater were measured in the wells for the purpose of calculating relative groundwater elevations and estimating groundwater flow direction at the property (Table 3). Potentiometric surface maps for the August 17, 2017 and Februay 13, 2018 groundwater surveys performed on the monitoring wells are included as Figures 29 and 30.

The potentiometric surface maps of the site for 2016 and January 2017 (Figures 26 through 28) show a complex groundwater flow environment with radial groundwater flow originating from an apparent groundwater high area in the groundwater surface near well KMW-04 on the eastern side of the former ash pond. Further evaluation of this groundwater high indicated that the Plant’s low-volume waste pipe discharged into this area, immediately north of the former AST and immediately west of well KMW-04. On these dates, groundwater flow beneath the former ash pond was to the west and northwest, and groundwater flow at the Northern Area HSI Site was to the north and northeast toward the Savannah River. A groundwater flow component from the west is also present in these maps.

The August 2017 potentiometric surface map (Figure 29) illustrates a change in groundwater flow direction in the area of the former ash pond. On this date, the groundwater flow beneath the former ash pond area was to the south and southeast from groundwater highs at wells KMW-08 and KMW-06. Groundwater flow at the Northern Area HSI Site continued to be to the north and northeast toward the Savannah River.

The February 2018 potentiometric surface map (Figure 30) illustrates another slight change in groundwater flow direction from the August 2017 event. On this date, the groundwater flow beneath the former ash pond was to the south and north/northeast towards the Savannah River, with a flow component from the west.

3.4 GROUNDWATER RESULTS AND DISCUSSION

3.4.1 Former Ash Pond

3.4.1.1 Post-Excavation Groundwater Conditions

Groundwater pH at the site varies with the location of the monitoring wells. Groundwater in monitoring wells close to the former ash pond is generally acidic (low in pH) and has decreased over time, while groundwater in wells farther from the former ash pond is more neutral in pH and has generally increased slightly over time. Field measurements collected during well development and sampling are presented in Appendix K and summarized on a table included therein.

In monitoring wells KMW-01, -02, -04, -05, -06, and -07 (adjacent to or close to the former ash pond), groundwater pH in September 2016, one month after completion of the ash pond excavation, ranged from a low of approximately 5 standard units (S.U.) in KMW-01 to a high of 6.1 S.U. in KMW-06 (Note that KMW-04 was not sampled until February 2018, at which time the pH was 5.54 S.U.). Since then, the pH values in these wells decreased approximately 0.3 to 1.7 S.U., with pH in three of the wells immediately adjacent to the former ash pond (KMW-01, KMW-06 and KMW-07) decreasing more than 1 S.U. The most recent pH values in the wells close to the former ash pond range from approximately 4.1 to 5.5 S.U.

Groundwater pH in wells farther from the former ash pond (KMW-3, KMW-08 through KMW-13, MW-15AR and MW-15DR) ranges from a low of 5.1 S.U. in KMW-08 to 7.0 S.U. in KMW-11, with only wells KMW-08 and KMW-03 less than 6.0 S.U. Although these wells have not been installed as long as the wells closer to the former ash pond, the pH values have generally increased 0.2 to 0.5 S.U., with the exceptions of KMW-08 and -12 which have decreased 0.5 and 0.2 S.U., respectively.

Groundwater in monitoring wells across the site are anoxic for dissolved oxygen (DO). DO values have remained anoxic in each of the wells and ranged from 0.1 to 0.5 mg/l since the initial sampling for each well, with the exception of KMW-05 during the February 2018 event, which may be an outlier. Field measurements collected during well development and sampling are presented in Appendix K.

3.4.1.2 Arsenic

Results

Arsenic was detected in one monitoring well, KMW-02, at concentrations exceeding the Type 1 and 3 RRS for groundwater. Groundwater sampling in January 2017 indicated a concentration of 0.037 mg/l. The well was purged of 150 gallons of groundwater on July 25, 2017 with groundwater samples collected at 50-gallon intervals. The concentrations remained consistent between 0.030 and 0.031 mg/l. Soil assessment around this monitoring well indicated the presence of a thin layer of buried ash and mill rejects, which were excavated and disposed of during the first quarter of 2018.

Discussion

Based on the change in groundwater flow directions between the 2016/January 2017 potentiometric surface maps (Figures 26 through 28), and the August 2017 and February 2018 potentiometric surface maps (Figures 29 and 30), the arsenic concentrations detected in well KMW-02 appear to have increased before the change in groundwater flow from the north in the August 2017 potentiometric surface map. The extent of arsenic exceeding the Type 1/3 RRS has been delineated by monitoring wells KMW-04 to the east (hydraulically side-gradient), KMW-09 to the west (hydraulically side-gradient), KMW-08 to the north (hydraulically up-gradient), and KMW-10 through KMW-12 to the south (hydraulically downgradient). Analytical results of metals from monitoring wells around the former ash pond area are presented in Table 4, and Figures 19 through 21.

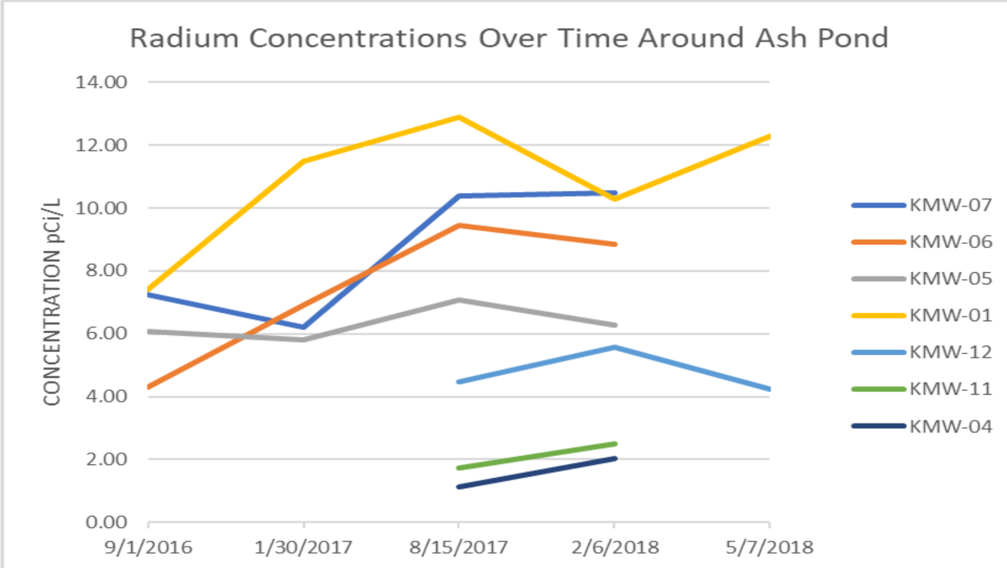
3.4.1.3 Radium

Results

During the 2016 and January 2017 groundwater sampling events, radium was detected in four monitoring wells (KMW-01, and KMW-05 through KMW-07), at combined radium 226 and 228 concentrations that exceed the at-the-tap Maximum Contaminant Level (MCL) groundwater protection standard of 5 picocuries per liter (pCi/L) (Table 5). The radium in these four wells is primarily (approximately 80 percent) radium 228, which has a half-life of 5.75 years.

In a fifth monitoring well, KMW-12, radium concentrations slightly exceeded 5 pCi/L in one of three sampling events. Radium was initially detected at a concentration less than 5 pCi/L (4.47 pCi/L) in August 2017 and was then detected at a concentration of 5.57 pCi/L in the February 2018 sampling event. However, the exceedance was not confirmed in the most recent, May 2018 sample with a concentration of 4.24 pCi/L.

The following graph illustrates the radium concentrations in these wells over time:



Discussion

The groundwater monitoring wells shown on the graph above are either adjacent to or on the hydraulically down-gradient sides of the former ash pond during the 2016, 2017, and 2018 groundwater sampling events. As shown on the graph above, wells KMW-01, -06, and -07 have the highest total radium concentrations on site, and they also had the greatest increase in radium concentrations over time. These same wells had the greatest decrease in pH (greater than 1 S.U.) after closure of the ash pond and the lowest resulting pH of groundwater on the site, with values from 4.0 to 4.8 pH units. There is a direct correlation between the decrease in pH and the increase in radium (primarily radium 228) in these wells. Prior researchers have also noted this relationship. The presence of radium in groundwater is enhanced in aquifers with acidic, anoxic, or both conditions (Both are present in these wells around the former ash pond). Combined radium concentrations exceeding the MCL in drinking water aquifers were most common with those groundwater conditions (*Occurrence and Geochemistry of Radium in Water from Principal Drinking-Water Aquifer Systems of the United States*, Applied Geochemistry, v. 27, 2012; Appendix B).

The presence of the radium 228 is causing the MCL to be exceeded and is also consistent with the dissolution of the naturally-occurring mineral monazite by low pH groundwater around the former ash pond.

The decreasing pH in groundwater around the former ash pond after excavation and closure may be a geochemical result of the disturbance caused by the excavation activities, and this situation, in combination with the anoxic conditions, may have secondarily mobilized the naturally-occurring radium.

Based on the most recent groundwater flow directions on the August 2017 and February 2018 potentiometric surface maps (Figures 29 and 30), the radium exceeding the 5 pCi/L drinking water standard in groundwater has been delineated by monitoring wells KMW-04 to the east (hydraulically side-gradient), KMW-02 and -08 to the west (hydraulically side-gradient), and KMW-11 and -12 to the south (hydraulically down-gradient). An increase in the radium concentration in KMW-12 in February

2018 resulted in a concentration slightly above 5 pCi/L. The well was resampled on May 7, 2018, to verify this concentration. The May 2018 radium concentration in KMW-12 was less than 5 pCi/L at a concentration of 4.24 pCi/L, and consistent with the concentration from August 2017. As shown in Table 5, the laboratory uncertainty from radium groundwater analysis ranges from +/- 0.56 to +/- 2.68 pCi/L, with the average uncertainty for KMW-12 being +/- 1.33 pCi/L. At these very low concentrations, the laboratory uncertainty when performing radium groundwater analyses may have resulted in the February 2018 radium result in KMW-12 exceeding the drinking water standard of 5 pCi/L.

Monitoring wells KMW-13 and KMW-03 were installed to the north of the former ash pond, on the GPA property. The radium concentrations from KMW-03 and KMW-13 in February 2018 were 2.51 pCi/L, and 1.21 pCi/L, respectively. Monitoring well KMW-03 is located hydraulically down-gradient of the former ash pond and provides the hydraulically down-gradient extent of radium above 5 pCi/L.

3.4.2 Northern Area HSI Site

Monitoring well MW-15D(R) was sampled during February 2018. The results of this sampling event show benzo(a)anthracene was detected at a concentration of 0.52 micrograms per liter (µg/L), which is above the Type 1 and 3 Risk Reduction Standards (RRS) of 0.1 µg/L, but below the recalculated Type 4 RRS of 1.3 µg/L. This concentration is consistent with recent data showing a decreasing trend.). As shown in the Kraft Northern Area of Contamination Groundwater Monitoring Report, dated March 2018, the Type 4 Risk Reduction Standards (RRS) were recalculated for the Plant Kraft Northern Area, by following the Georgia Department of Natural Resources Environmental Protection Division (EPD) *Rule 391-3-19-.07 Risk Reduction Standard*. The RRS concentrations for the PAHs in the northern area are shown on Table 6. Concentrations of PAHs have generally been decreasing, as indicated in the historical trends (Appendix L). The PAH groundwater analytical results in the Northern Area HSI Site are shown on Figure 18.

3.4.3 Former AWI RCRA Site

According to the Georgia Atlantic Port's Supplement RFI Work Plan, dated March 2018, the southern portion of the Plant Kraft property is impacted with creosote and associated PAHs from the adjoining former AWI RCRA site. Measurable Dense Non-Aqueous Phase Liquid (DNAPL) creosote (0.54 ft.) is present in on-site Plant Kraft monitoring well MW-35, and trace DNAPL was also detected in wells MW-38 and MW-40. Naphthalene impacted groundwater is reportedly present in wells MW-39 and MW-41, and is inferred in the wells with DNAPL creosote, but was not detected in wells MW-33, -34, and -37. Based on their report, the DNAPL creosote plume extends from the GAP/former AWI site, across the Chatham County Canal, to the area of wells MW-35, -38, and -40, and the dissolved phase plume extends farther north to approximately the main Plant Kraft road between wells MW-41 and MW-42, and to east of well MW-39.

4.0 CLEAN UP CRITERIA

4.1 SOIL CRITERIA

Type 3 RRS soil criteria for antimony, arsenic, barium, beryllium, nickel and thallium are presented on Table 2. A TPH DRO standard of 100 mg/kg is also presented on Table 2, which was the standard used for number 2 fuel oil at the AST. Except for arsenic, RRS criteria for other substances were not calculated because the sample results were less than Type 3 RRS. Type 1 through Type 4 RRS criteria for arsenic are shown in Table 6. The Type 2 and Type 4 RRS criteria were calculated using default exposure parameters. Because the calculated values for the Type 3 RRS were higher than the Type 2 and 4 RRS criteria for arsenic, the Type 3 RRS was selected as the basis for comparison to soil sample analytical results.

In Table 7, the concentrations of arsenic detected in soil samples are compared to the Type 3 RRS. As shown in the table, arsenic was initially detected in soil in a number of samples exceeding the Type 3 RRS criteria. Soil exceeding the Type 3 RRS was removed until confirmation samples in the excavation collected indicated results that were below the Type 3 RRS, or until reaching uppermost groundwater.

As shown in Tables 2 and 7, detected concentrations of antimony, arsenic, barium, beryllium, nickel, and thallium in soil confirmation samples at Plant Kraft were less than their respective Type 3 RRS criteria.

4.2 GROUNDWATER CRITERIA

Type 1 or 3 RRS groundwater criteria for antimony, arsenic, barium, beryllium, cadmium, chromium, fluoride, lead, mercury, selenium and thallium are presented on Table 4. Except for arsenic and the PAHs from the Northern Area, RRS criteria for other substances were not calculated because the sample results were less than Type 1 or 3 RRS. Type 1 through Type 4 RRS criteria for arsenic, benzo(a)pyrene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and benzo(b)fluoranthene in groundwater are shown in Table 6. Arsenic concentrations in well KMW-02 exceed the Type 3 and 4 RRS criteria. Radium concentrations in wells KMW-01 and -05 through -07 exceed the EPA at-the-tap MCL of 5 pCi/L (Table 5). Therefore, potential receptors will be reviewed in the following section to evaluate the potential for groundwater compliance through use restrictions for arsenic and radium.

5.0 POTENTIAL RECEPTORS

This section describes potential environmental and human receptors, including a discussion of common exposure routes (i.e., inhalation, ingestions, or dermal contact), where deemed applicable. The site and adjacent properties are located in an industrial/shipping port area within Port Wentworth, Georgia.

5.1 SOIL

The Plant Kraft site is a non-residential, industrial facility, and concentrations of regulated substances detected in soil excavation confirmation samples on Tract 1 (Donation Tract) and the majority of the Tracts 2 and 3 (Retained Tracts) were less than Type 3 (non-residential) RRS. A limited area of remaining ash extending west of the former ash pond beneath Substation II is being designated as a Type 5 area. The substation is fenced and an Environmental Covenant in accordance with the Uniform Environmental Covenants Act (a UEC) will be placed on the Type 5 area. Permanent markers or signs denoting the Type 5 area with a restriction on excavation without prior permission, will be placed on the substation fence and along the former ash pond berm. An example UEC marker is presented in Appendix M. The exposure pathway for the potential Type 5 soil reported beneath Substation II will be incomplete due to the restricted access nature of the substation and the UEC. The exposure pathways to the soils in less than Type 3 RRS will potentially be complete, but below regulatory levels for non-residential use.

5.2 GROUNDWATER

The site was previously permitted for two deep groundwater withdrawal wells and one deep cooling-water injection well. These wells were abandoned by Greene's Water Well Drilling during plant decommissioning activities. According to a well database search report map prepared by Environmental Database Research (EDR) from August 12, 2015 (Appendix N), there were six (6) wells located on the property. Based on site visits during the Phase II assessment and Georgia Power records, three of these EDR wells were mis-plotted and are not on Plant Kraft property.

Groundwater on parcels exceeding applicable standards would be restricted by a UEC. Since future groundwater use will be restricted by covenant, ingestion of groundwater is an incomplete exposure pathway.

5.3 SURFACE WATER

Surface water adjoining the site consists of the Chatham County Canal and the Savannah River. The Chatham County Canal is a shallow (3 feet deep to less than 1 foot deep, depending on tides), heavily vegetated canal that is reportedly impacted by creosote or creosote constituents from the adjoining former AWI site, and these factors make it unsuitable for recreational or drinking water use. The Savannah River in this area is part of the Port and is not designated for drinking water or recreational use. Further, according to EPD Water Quality Branch website (https://epd.georgia.gov/radium-and-uranium-public-drinking-water-systems), dermal exposure to radium-impacted water is not considered a human-health concern. Therefore, the following evaluation of the potential for radium to impact surface water was performed strictly to evaluate a potential exposure route to the environment. Since Georgia does not have an In-Stream Water Quality Standard (ISWQS) for radium, and we were unable to identify other state or federal surface water standards or ecological toxicity factors, the EPA's at-the-tap MCL of 5 pCi/L was conservatively used for the evaluation.

Groundwater flow to the Chatham County Canal and the Savannah River have been modeled using a simple mathematical model of groundwater flow velocity, time, and the radium 228 half-life of 5.75 years. Groundwater flow velocity was calculated based on slug-testing of well KMW-06 (Appendix O), hydraulic gradients measured from potentiometric surface maps, and estimated effective porosities based on fine to medium sands observed during drilling. Measured hydraulic conductivities averaged 8.3×10^{-3} centimeters per second (cm/sec) based on evaluation of the slug-in and slug-out test data. The hydraulic gradient was calculated at 0.00275 feet per foot (ft/ft) from KMW-06 toward the Savannah River using site potentiometric surface maps. Combined with an estimated effective porosity range of 20 to 25 percent, these factors yielded a groundwater flow velocity (V=Ki/Ne) range of 95 to 119 feet per year from KMW-06 toward the River. The average distance to the River from the KMW-06 area (KMW-01 and KMW-05 through -07) is 1,163 feet. Using half-lives of 5.75 years for radium 228 and 1,600 years for radium 226 and the most conservative (highest) radium concentrations (August 2017 data, which are similar to May 2018 data), the resultant radium concentrations over time and distance were calculated. The spreadsheet and graph are presented in Appendix O. Based on this mathematical model, the travel time from the KMW-06 area (KMW-01 and KMW-05 through -07) to the Savannah River is approximately 9.8 to 12.25 years, whereupon the combined radium 226 and 228 concentration will be less than 5 pCi/L. The model predicts average groundwater concentrations of 5 pCi/L or less at 8 years for wells KMW-01 and KMW-05 through -07, compared to the 9.8 to 12.25 years predicted to reach the Savannah River. This simple model does not account for infiltration and mixing of precipitation or advection and dispersion in groundwater, which makes the model very conservative, and it likely over-estimates radium concentrations for any specific location over time.

Arsenic concentrations detected in groundwater at the site are less than Georgia In-Stream Water Quality Standards (50 µg/L). If arsenic impacted groundwater were to migrate to either the Savannah River or Chatham Count Canal, concentrations in surface water would be less than ISWQS.

While the surface water pathways for arsenic and radium are complete, the concentrations detected in groundwater and modeling indicates that concentrations at the potential point of exposure (the Savannah River) would be less than drinking water standards for radium and less than Georgia In-Stream Water Quality Standards for arsenic.

5.4 VAPOR INTRUSION

Because radium 226 decays into radon (Rn 222) and radium 228 decays into thoron (Rn 220), the potential for radium in groundwater to generate radon soil vapor was evaluated as a possible exposure pathway via vapor intrusion through the foundation of a future on-site building. In modeling soil vapor concentrations migrating through a building foundation and impacting indoor air quality, the EPA recommends an attenuation factor of 0.03 of the soil vapor concentrations. Therefore, indoor air concentrations can be modeled as 0.03 of soil vapor concentrations. The indoor air quality (IAQ) standard for radon is 4 pCi/L, so for the IAQ standard to be exceeded, radon soil vapor concentrations would have to exceed 133.33 pCi/L of radon (4 / 0.03 = 133.33). The highest current (February 2018) groundwater concentration of total radium was 10.4 pCi/L, and the highest detected to date was 12.9 pCi/L. Even if 100 percent of the radium concentration in groundwater instantaneously decayed into radon soil vapor (which is unrealistically conservative given half-lives of 1,600 and 5.75 years, respectively), it would be less than one-tenth of the 133 pCi/L soil vapor concentration needed to exceed the 4 pCi/L. Therefore, vapor intrusion, if any, for radon should be far below the IAQ standard of 4 pCi/L. Therefore, while the vapor intrusion pathway is potentially complete, potential exposure would be significantly below regulatory levels.

6.0 DESCRIPTION OF RESPONSIBLE PARTIES

6.1 RESPONSIBLE PARTIES

For this VRP Compliance Status Report, the site consists of the contiguous impacted area on the parcels of land owned by Georgia Power Company in Port Wentworth, Georgia and affected portions of the adjacent property owned by the Georgia Ports Authority. Georgia Power's contact information is provided below:

Georgia Power Company

Attn: Robert W. (Brett) Mitchell
Bin 10221
241 Ralph McGill Boulevard
Atlanta, Georgia 30308
Telephone: (404) 506-6212

In addition, the Plant Kraft property is impacted by creosote and related SVOCs in soil and groundwater from the adjacent Georgia Atlantic Ports/former AWI RCRA site. Although these impacts are not included in this CSR, their property owner information is as follows:

Property owner information: Georgia Atlantic Ports, LLC
Attn: Mr. Michael Roberts or Mr. Thomas Roberts
1650 Des Peres Road
Saint Louis, Missouri 63131

6.2 PUBLIC NOTICE OF CSR SUBMITTAL TO EPD

Public notice of the submittal of this CSR to EPD will be provided under separate cover.

7.0 CONCLUSIONS

An extensive investigation and subsequent excavation activities were performed at Plant Kraft. Figure 31 shows the tract which GPC plans to donate to the Georgia Ports Authority (Tract 1), and the tracts which GPC plans to retain (Tracts 2 and 3). The majority of the site complies with Type 3 RRS for soil, while a small portion of Tract 2 around the substation will be subject to Type 5 RRS through use of an environmental covenant. Groundwater at the site is largely in compliance with HSRA nonresidential risk reduction standards, with the exception of arsenic and radium in specific locations at the site. These arsenic and radium exceedances are proposed to be addressed through implementation of environmental covenants restricting groundwater use. Additional detail regarding Tracts 1, 2 and 3 of the Plant Kraft property is summarized below.

Tract 1 (Donation Tract)

Detected soil concentrations exceeding the Type 3 RRS criteria have been excavated to groundwater or to concentrations less than Type 3 RRS on Tract 1. Concentrations detected in excavation confirmation samples were less than Type 3 RRS criteria.

Arsenic concentrations in groundwater on the Tract 1 have been either “non-detect” or estimated concentrations (J-values) below the laboratory reporting limit.

Groundwater on Tract 1 is impacted by total radium concentrations exceeding the EPA at-the-tap MCL in wells KMW-05, -06, and -07. The radium in these wells, and in well KMW-01 on Tract 2, is approximately 80 percent radium 228, with the remainder radium 226. The radium 226 concentrations in these wells are significantly below the MCL of 5 pCi/L. The presence of the radium 228 is causing the MCL to be exceeded and is consistent with the low pH and anoxic conditions in these wells. The radium 228 is also consistent with the dissolution of the naturally-occurring mineral monazite by low pH groundwater around the former ash pond. The lower the pH, the greater the concentration of radium 228 detected.

The decreasing pH in groundwater in certain areas may be a geochemical result of the disturbance caused by the excavation activities, and this situation, in combination with the anoxic conditions, may have secondarily mobilized the naturally-occurring radium.

PAH concentrations in groundwater in the Kraft Northern Area site are in compliance with Type 4 RRS based on the February 2018 and prior recent historical results.

A restrictive covenant would be placed on this parcel, in accordance with the VRP.

Tracts 2 and 3 (GPC Retained Tracts)

Detected soil concentrations exceeding the Type 3 RRS criteria have been excavated to groundwater or to concentrations less than Type 3 RRS on the majority of retained Tracts 2 and 3. Concentrations detected in excavation confirmation samples were less than Type 3 RRS criteria. A Type 5 area of ash fill remains on Tract 2 extending west of the former ash pond, under the substation.

Groundwater on Tract 2 is impacted by arsenic and radium exceeding RRS and EPA MCL criteria, respectively. Arsenic has been detected and delineated in groundwater on Tract 2 and is limited to well KMW-02. Arsenic concentrations remained stable between September 2016 and August 2017, and slightly decreased in the February 2018 results in well KMW-02, where it exceeds the Type 3 RRS criteria.

A restrictive covenant would be placed on these parcels, in accordance with the VRP.

TABLES

Table 1
Summary of Phase II Analytical Sampling Protocol
Georgia Power Plant Kraft
Port Wentworth, Georgia

Figure #	Structure	Contents	Location	Constituents	Approach	Borings	Soil Samples	Groundwater Samples
1	UST	Gasoline	Paint Shop	BTEX/GRO	Biased DPT soil/possible GW	1	1	1
3	AST	Dust Suppression Surfactant	Coal Yard	VOCs	Biased DPT soil/FID screen	1		
4	AST	Diesel	Paint Shop	BTEX/PAHs/DRO/GRO	Biased DPT soil/possible GW	1	1	
5/12	AST	Diesel/Acid&Caustic	Main Plant	BTEX/PAHs/DRO/GRO (plus pH for 12)	Biased DPT soil / GW	1	1	1
6	AST	Diesel	Fleet Maintenance Shop	BTEX/PAHs/DRO/GRO	Biased DPT soil/possible GW	1	1	
7	AST	Diesel	Tank House	BTEX/PAHs/DRO/GRO	Biased DPT soil/possible GW	1	1	
8	AST	#6 Fuel Oil	Tank House	BTEX/PAHs/DRO/GRO	Biased DPT soil / GW	5	9	1
9	AST	#6 Fuel Oil	River Equipment Lot	BTEX/PAHs/DRO/GRO	Biased DPT soil / GW	1	1	1
10	AST	#2 Fuel Oil	Tank House	BTEX/PAHs/DRO/GRO	Biased DPT soil / GW	1	1	1
11	AST	Fuel Oil Additives	Main Plant	BTEX/PAHs/DRO/GRO	Biased DPT soil	1	1	
15	Buried Ash	Buried Ash	River Equipment Lot	Buried Ash	Visual delineation	4		
16	Septic	Waste	Fleet Maintenance Shop	VOCs/PAHs/RCRA Metals	Biased DPT soil / GW	1	1	1
17	Septic	Waste	Coal Pile Building	VOCs/PAHs/RCRA Metals	Biased DPT soil / GW	1	1	1
18	Septic	Waste	Pratt Building	VOCs/PAHs/RCRA Metals	Biased DPT soil / GW	1	1	1
19	Septic	Waste	Store Room	VOCs/PAHs/RCRA Metals	Biased DPT soil / GW	1	1	1
21	Septic	Waste	Main Plant	VOCs/PAHs/RCRA Metals	Biased DPT soil / GW	1	1	1
23	Buried Drums	Unknown	Store Room Addition	Based on excavation observation	GPR followed by test pit(s)	--		
26	Car Wash	Oil/Water Separator	Main Parking Area	BTEX/PAHs/DRO/GRO	Biased DPT soil/FID screen	1	1	
27	Dust Suppression	Surfactant	Fleet Maintenance Shop	VOCs	Biased DPT soil/FID screen	1	1	

Table 1
Summary of Phase II Analytical Sampling Protocol
Georgia Power Plant Kraft
Port Wentworth, Georgia

Figure #	Structure	Contents	Location	Constituents	Approach	Borings	Soil Samples	Groundwater Samples
31	Paint Shop Sink Drain	Paint/Solvents	Paint Shop	VOCs/PAHs/RCRA Metals	Biased DPT soil/possible GW - Highest PID/FID or last above GW	2	2	2
36	Run-off Pond	Coal	N of Coal Pile	RCRA Metals plus Copper	Grid Pattern 100'x100'	14	8	5
37/50	Coal Pile & Mill Reject Area/Buried Ash	Coal & Mill Rejects/Buried Ash	NE of Substation 1 /Multiple Areas	Visual Removal/Buried Ash	Grid Pattern 100'x100'/Visual Delineation	34		
38	Fuel Oil Piping/Tank/Spill	#6 Fuel Oil	Main Plant	BTEX/PAHs/DRO/GRO	Biased DPT soil/possible GW	1	1	1
43	Mill Reject Burial Area		Under Asphalt N. of Coal Pile	Visual Removal	Grid Pattern 100'x100'	2		
44	Mill Reject Burial Area		Along River Bank	Visual Removal	Grid Pattern 30'x100'	8		
45	Sandblasting Area	Sandblasting waste	East of Store Room	RCRA Metals	Biased DPT soil	4	4	
46	Paint & Construction Storage	Possible paints, solvents, etc.	Original Storage Bldgs. S. of Plant	VOCs/PAHs/RCRA Metals	Biased DPT soil/GW	4	4	1
47	Septic	Waste	North of building/S. of Switchyard	VOCs/PAHs/RCRA Metals	To be retained by GPC	1	1	1
49	Overflow Fuel Tank	Fuel Oil	South of Pratt Bldg.	BTEX/PAHs/DRO/GRO	Biased DPT soil/FID screen	1	1	
51	HSI Site	Creosote/SVOCs in Groundwater	NW Corner of Site	Creosote/SVOCs	Soil DPTs w/ soil samples 0-2', 2'-6', & 6-10' (if unsaturated); Sample existing wells if needed based on Landfill excavation	9	18	
					Totals	105	63	20

Prepared By BS
Checked By MP

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Southern Ash Pond Area	**APCS-01**	3/28/2017	na	<7.19	7.28	<0.12	na	na	na
	APCS-02	3/28/2017	na	<6.13	10.9	<0.10	na	na	na
	APCS-03	3/28/2017	na	<5.65	15.4	<0.09	na	na	na
	APCS-04	3/28/2017	na	<6.51	45.2	0.19	na	na	na
	APCS-05	3/29/2017	na	<7.13	14.8	0.06	na	na	na
	APCS-06	4/10/2017	na	<6.34	22.3	0.08	na	na	na
	APCS-07	4/10/2017	na	<6.91	9.76	0.05	na	na	na
	APCS-08	4/10/2017	na	<7.49	4.07	<0.05	na	na	na
	APCS-09	4/10/2017	na	<8.05	28.2	0.11	na	na	na
	APCS-10	4/11/2017	na	<8.44	17.7	0.07	na	na	na
	APCS-11	4/12/2017	na	<5.52	20.0	0.24	na	na	na
	APCS-12	4/26/2017	na	<7.61	14.0	0.20	na	na	na
	APCS-13	4/26/2017	na	<8.33	9.58	<0.06	na	na	na
	APCS-14	4/26/2017	na	<7.70	13.1	<0.05	na	na	na
	APCS-15	4/27/2017	na	<7.94	11.3	0.33	na	na	na
	APCS-16	4/27/2017	na	<7.71	7.63	<0.05	na	na	na
	APCS-17	4/27/2017	na	<7.59	11.8	<0.05	na	na	na
	APCS-18	5/2/2017	na	<8.80	72.4	0.63	na	na	na
	APCS-19**	5/2/2017	na	8.51	730	0.82	na	na	na
	APCS-19A	5/3/2017	na	<8.66	40.3	0.99	na	na	na
	APCS-20	5/3/2017	na	<5.28	24.1	0.09	na	na	na
	APCS-21	5/3/2017	na	9.38	48.8	0.26	na	na	na
	APCS-22	5/3/2017	na	<6.04	6.99	0.05	na	na	na
	APCS-23	5/3/2017	na	17.00	53.3	0.36	na	na	na
AST Area	**ASTCS-01**	3/28/2017	na	<5.87	50.3	0.19	na	na	<7.5
	ASTCS-02	3/28/2017	na	<7.71	27.3	0.27	na	na	44
	ASTCS-03	3/28/2017	na	11.60	38.8	0.25	na	na	<7.9
	ASTCS-04	3/28/2017	na	9.48	63.5	0.40	na	na	<8.1
	ASTCS-05	3/28/2017	na	<7.65	33.6	0.41	na	na	<8.8
	ASTCS-06	3/29/2017	na	<7.58	137	0.54	na	na	<7.8
	ASTCS-07	3/29/2017	na	10.20	29.4	0.29	na	na	<7.9
	ASTCS-08	3/29/2017	na	<6.48	21.9	0.17	na	na	<8.3
	ASTCS-09	3/30/2017	na	<9.38	35.7	0.40	na	na	<8.4
	ASTCS-10	3/30/2017	na	<5.73	29.0	0.24	na	na	<8.3
	ASTCS-11	4/3/2017	na	<6.23	23.1	0.22	na	na	<8.2
	ASTCS-12	4/3/2017	na	7.95	41.6	0.53	na	na	<8.5
	ASTCS-13	4/4/2017	na	<6.64	27.5	0.20	na	na	<8.6
	ASTCS-14	4/4/2017	na	<7.49	22.7	0.20	na	na	<8.9
	ASTCS-15	4/5/2017	na	<7.17	64.5	0.31	na	na	<7.8
	ASTCS-16	4/5/2017	na	<7.49	166	0.40	na	na	<9.8
	ASTCS-17	4/11/2017	na	8.20	23.1	0.29	na	na	<8.6
	ASTCS-18	4/11/2017	na	<6.98	30.1	0.26	na	na	<8.4
	ASTCS-19	4/11/2017	na	<7.97	20.3	0.12	na	na	<7.6
	ASTCS-20	4/11/2017	na	<7.20	85.4	0.15	na	na	<8.1
	ASTCS-21	4/12/2017	na	<5.10	23.3	0.21	na	na	<8.6

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
AST Area	ASTCS-22	4/13/2017	na	<8.04	33.2	0.18	na	na	<8.0
	ASTCS-23	4/17/2017	na	10.20	30.8	0.27	na	na	<8.8
	ASTCS-24	4/17/2017	na	<7.83	24.9	0.25	na	na	<8.7
	ASTCS-25	4/17/2017	na	<7.35	23.5	0.30	na	na	<8.4
	ASTCS-26	4/18/2017	na	<7.48	24.3	0.23	na	na	<8.3
	ASTCS-27	4/19/2017	na	<7.17	50.0	0.30	na	na	na
	ASTCS-28	4/19/2017	na	<7.55	145	0.21	na	na	<9.1
	ASTCS-29	4/19/2017	na	<6.99	12.1	0.11	na	na	na
	ASTCS-30	4/21/2017	na	<7.66	25.9	0.18	na	na	<8.7
	ASTCS-31	4/21/2017	na	<6.11	14.7	0.27	na	na	<9.4
	ASTCS-32	4/24/2017	na	<9.04	65.8	0.36	na	na	<9.1
Coal Pile Area	CPCS-01	5/11/2017	na	<7.19	170	1.79	na	na	na
	CPCS-02*	5/11/2017	na	**45.40**	364	0.41	na	na	na
	CPCS-03	5/15/2017	na	<7.16	34.5	0.66	na	na	na
	CPCS-04	5/15/2017	na	<6.75	23.6	0.30	na	na	na
	CPCS-05	5/15/2017	na	<5.89	12.2	0.29	na	na	na
	CPCS-06	5/15/2017	na	8.31	28.4	0.36	na	na	na
	CPCS-07	5/16/2017	na	17.80	16.4	0.11	na	na	na
	CPCS-08	5/16/2017	na	<8.84	16.4	0.26	na	na	na
	CPCS-09	5/16/2017	na	<7.08	25.5	0.20	na	na	na
	CPCS-10*	5/16/2017	na	**173.00**	45.9	0.12	na	na	na
	CPCS-11	5/17/2017	na	<8.48	21.4	0.17	na	na	na
	CPCS-12	5/17/2017	na	18.10	38.3	0.36	na	na	na
	CPCS-13	5/17/2017	na	16.20	78.3	0.31	na	na	na
Eastern Ash Pond Area	EAPCS-01	5/2/2017	na	<5.44	32.9	0.19	na	na	na
	EAPCS-02	5/2/2017	na	<5.51	13.7	<0.04	na	na	na
	EAPCS-03	5/3/2017	na	<7.39	25.4	0.18	na	na	na
	EAPCS-04	5/3/2017	na	<6.75	55.2	0.11	na	na	na
	EAPCS-05	5/3/2017	na	<5.96	75.1	0.12	na	na	na
	EAPCS-06	5/3/2017	na	<7.93	69.8	0.10	na	na	na
	EAPCS-07	5/4/2017	na	<7.32	5.47	0.06	na	na	na
	EAPCS-08	5/8/2017	na	<8.36	12.9	0.09	na	na	na
	EAPCS-09	5/9/2017	na	<5.83	24.1	<0.00	na	na	na
	EAPCS-10	5/9/2017	na	<6.06	32.7	<0.00	na	na	na
	EAPCS-11	5/9/2017	na	<6.24	40.8	<0.00	na	na	na
	EAPCS-12	5/9/2017	na	<7.63	8.42	<0.01	na	na	na
	EAPCS-13	5/9/2017	na	<6.56	16.8	<0.00	na	na	na
	EAPCS-14	5/10/2017	na	<6.17	34.6	0.29	na	na	na
	EAPCS-15	5/10/2017	na	<5.68	25.2	0.24	na	na	na
	EAPCS-16	6/28/2017	na	<5.98	12.8	0.11	na	na	na
	EAPCS-17	6/28/2017	na	<5.75	12.9	0.09	na	na	na
	EAPCS-18	6/28/2017	na	10.70	52.4	0.44	na	na	na
	PCS-01*	6/28/2017	na	na	na	na	na	na	**440**
	PCS-02	7/6/2017	na	na	na	na	na	na	<7.5
	PCS-03	7/6/2017	na	na	na	na	na	na	<7.5

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	**Arsenic**	**Barium**	**Beryllium**	**Nickel**	**Thallium**	**TPH-DRO**
			10/BG	**41.00**	**1000**	**3**	**420**	**10/BG**	**100**
Railroad Area	**RRCS-01**	7/21/2017	na	<6.12	35.8	na	na	na	na
	RRCS-02	7/21/2017	na	<5.47	2.87	na	na	na	na
	RRCS-03	7/21/2017	na	<7.12	7.83	na	na	na	na
	RRCS-04	7/22/2017	na	<5.18	5.08	na	na	na	na
	RRCS-05	7/22/2017	na	<7.00	33.6	na	na	na	na
	RRCS-06	7/22/2017	na	<5.74	10.2	na	na	na	na
	RRCS-07	7/24/2017	na	<6.76	21.3	na	na	na	na
	RRCS-08	7/24/2017	na	<7.73	15.3	na	na	na	na
	RRCS-09	7/26/2017	na	<7.27	6.98	na	na	na	na
	RRCS-10	7/26/2017	na	<7.47	21.0	na	na	na	na
	RRCS-11**	7/27/2017	na	**38.90**	139	na	na	na	na
	RRCS-11A	8/16/2017	na	<5.13	na	na	na	na	na
	RRCS-12	7/27/2017	na	<7.43	39.0	na	na	na	na
	RRCS-13	8/3/2017	na	<8.29	19.4	na	na	na	na
	RRCS-14	8/3/2017	na	<8.23	11.9	na	na	na	na
	RRCS-15	8/3/2017	na	<8.16	26.8	na	na	na	na
	RRCS-16	8/4/2017	na	7.08	12.1	na	na	na	na
	RRCS-17	8/17/2017	na	<6.74	11.2	na	na	na	na
	RRCS-18	8/17/2017	na	<7.17	26.4	na	na	na	na
	RRCS-19	8/29/2017	na	<7.31	5.13	na	na	na	na
	RRCS-20	8/29/2017	na	<7.50	13.9	na	na	na	na
Landfill Road Area	**RDCS-1SW****	11/13/2017	na	**65.10**	29.7	na	na	na	na
	RDCS-1(RS)	11/27/2017	na	<7.35	5.59	na	na	na	na
	RDCS-2	11/13/2017	na	<7.32	3.16	na	na	na	na
	RDCS-3SW	11/13/2017	na	<7.20	19.3	na	na	na	na
	RDCS-4SW	11/13/2017	na	<7.27	2.47	na	na	na	na
	RDCS-5	11/13/2017	na	<7.34	2.39	na	na	na	na
	RDCS-6	11/13/2017	na	<7.34	11.1	na	na	na	na
	RDCS-7SW	11/13/2017	na	18.60	89.1	na	na	na	na
	RDCS-8	11/13/2017	na	<7.08	2.27	na	na	na	na
	RDCS-9	11/13/2017	na	<7.47	35.8	na	na	na	na
	RDCS-10	11/13/2017	na	<7.15	19.9	na	na	na	na
	RDCS-11	11/13/2017	na	<7.25	48.5	na	na	na	na
	RDCS-12	11/13/2017	na	15.00	80.2	na	na	na	na
	RDCS-13	11/13/2017	na	<7.30	5.28	na	na	na	na
	RDCS-14	11/13/2017	na	<7.46	14.7	na	na	na	na
	RDCS-15	11/13/2017	na	<7.45	14.5	na	na	na	na
	RDCS-16SW	11/14/2017	na	<7.34	14.1	na	na	na	na
	RDCS-17	11/14/2017	na	10.50	41.3	na	na	na	na
	RDCS-18	11/14/2017	na	<7.30	11.0	na	na	na	na
	RDCS-19	11/14/2017	na	<7.25	2.99	na	na	na	na
	RDCS-20	11/14/2017	na	<7.32	1.01	na	na	na	na

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Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Landfill Road Area	RDCS-21	11/14/2017	na	<7.31	3.16	na	na	na	na
	RDCS-22	11/14/2017	na	<7.26	4.30	na	na	na	na
	RDCS-23	11/15/2017	na	<7.26	1.46	na	na	na	na
	RDCS-24	11/15/2017	na	<7.42	1.19	na	na	na	na
	RDCS-25	11/15/2017	na	<7.43	2.40	na	na	na	na
	RDCS-26	11/15/2017	na	<7.30	1.07	na	na	na	na
	RDCS-27	11/15/2017	na	<7.32	1.58	na	na	na	na
	RDCS-28	11/15/2017	na	<7.15	2.01	na	na	na	na
	RDCS-29	11/16/2017	na	<7.42	1.38	na	na	na	na
	RDCS-30	11/16/2017	na	<7.15	1.40	na	na	na	na
	RDCS-31	11/16/2017	na	<7.16	2.43	na	na	na	na
	RDCS-32	11/16/2017	na	<7.45	1.19	na	na	na	na
	RDCS-33	11/16/2017	na	<7.43	1.13	na	na	na	na
	RDCS-34	11/17/2017	na	<7.35	13.4	na	na	na	na
	RDCS-35	11/20/2017	na	<7.43	13.4	na	na	na	na
	RDCS-36	11/20/2017	na	<7.39	26.6	na	na	na	na
	RDCS-37	11/20/2017	na	8.82	80.2	na	na	na	na
	RDCS-38	11/20/2017	na	<7.20	25.5	na	na	na	na
	RDCS-39	11/20/2017	na	<7.16	17.0	na	na	na	na
	RDCS-40	11/20/2017	na	<7.24	13.9	na	na	na	na
Northern Landfill Area	CS-15A	6/27/2017	na	<8.67	38.0	na	na	na	na
	SWCS-15A-1.5	6/27/2017	na	<6.93	12.4	na	na	na	na
	SWCS-15A-4.0	6/27/2017	na	**43.10**	701	na	na	na	na
	CS-15C	6/27/2017	na	<5.51	67.4	na	na	na	na
	CS-15D	6/28/2017	na	<6.46	39.0	na	na	na	na
	SWCS-15D-E-1.5	6/28/2017	na	<7.47	42.0	na	na	na	na
	SWCS-15D-W-1.5	6/28/2017	na	<7.44	185	na	na	na	na
	DCS-01-N	8/8/2017	na	<8.06	30.1	na	na	na	<7.5
	DCS-01-E	8/8/2017	na	<7.54	38.0	na	na	na	<7.9
	DCS-01-S	8/8/2017	na	<7.76	37.0	na	na	na	<8.3
	DCS-01-W	8/8/2017	na	<8.63	126	na	na	na	<8.5
	LFCS-02	8/9/2017	na	<7.42	22.3	na	na	na	na
	LFCS-03	8/9/2017	na	<8.09	35.1	na	na	na	na
	LFCS-04	8/9/2017	na	<6.67	120	na	na	na	na
	LFCS-05	8/9/2017	na	<8.02	69.6	na	na	na	na
	LFCS-06	8/9/2017	na	<6.41	42.5	na	na	na	na
	LFCS-07	8/9/2017	na	<7.76	22.2	na	na	na	na
	LFCS-08	8/9/2017	na	<6.40	39.7	na	na	na	na
	LFCS-09	8/9/2017	na	<8.65	27.6	na	na	na	na
	LFCS-10	8/11/2017	na	<7.12	29.3	na	na	na	na
	LFCS-11	8/11/2017	na	<8.64	40.5	na	na	na	na
	LFCS-12	8/11/2017	na	<9.02	37.8	na	na	na	na
	LFCS-13	8/11/2017	na	<9.71	60.5	na	na	na	na
	LFCS-14	8/11/2017	na	<8.99	45.1	na	na	na	na

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Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Northern Landfill Area	**LFCS-15**	8/11/2017	na	<8.52	69.0	na	na	na	na
	LFCS-16	8/11/2017	na	<7.50	39.8	na	na	na	na
	LFCS-17	8/11/2017	na	<8.81	41.7	na	na	na	na
	LFCS-18	8/11/2017	na	<6.73	32.0	na	na	na	na
	LFCS-19	8/11/2017	na	<7.71	67.7	na	na	na	na
	LFCS-20	8/11/2017	na	<8.53	36.9	na	na	na	na
	LFCS-21	8/11/2017	na	<6.88	61.0	na	na	na	na
	LFCS-22	8/11/2017	na	<8.10	36.4	na	na	na	na
	LFCS-23	8/11/2017	na	<8.05	44.1	na	na	na	na
	LFCS-24	8/11/2017	na	7.10	94.0	na	na	na	na
	LFCS-25	8/11/2017	na	<7.89	52.7	na	na	na	na
	LFCS-26	8/11/2017	na	<8.72	125	na	na	na	na
	LFCS-27	8/28/2017	na	<7.22	10.5	na	na	na	na
	LFCS-28	8/28/2017	na	<6.89	36.3	na	na	na	na
	LFCS-29	9/20/2017	na	11.40	79.5	na	na	na	na
	LFCS-30	9/20/2017	na	<8.79	67.0	na	na	na	na
	LFCS-31	9/20/2017	na	<7.62	4.11	na	na	na	na
	LFCS-32	10/18/2017	na	<6.21	36.5	na	na	na	na
	LFCS-33	10/18/2017	na	<6.21	54.9	na	na	na	na
	LFCS-34	10/19/2017	na	<6.06	46.7	na	na	na	na
	LFCS-35	10/19/2017	na	<6.45	112	na	na	na	na
	LFCS-36	10/19/2017	na	<6.03	60.1	na	na	na	na
	LFCS-37	10/19/2017	na	<5.78	24.0	na	na	na	na
	LFCS-38	10/19/2017	na	<5.65	33.6	na	na	na	na
	LFCS-39	10/19/2017	na	<6.17	73.2	na	na	na	na
	LFCS-40	10/25/2017	na	<7.16	79.9	na	na	na	na
	LFCS-41	10/25/2017	na	<8.17	6.48	na	na	na	na
	LFCS-42	10/25/2017	na	<8.07	6.36	na	na	na	na
	LFCS-43	10/25/2017	na	<8.33	4.78	na	na	na	na
	LFCS-44	10/25/2017	na	<8.63	6.82	na	na	na	na
	LFCS-45	10/25/2017	na	<5.84	28.0	na	na	na	na
	LFCS-46	10/26/2017	na	8.05	57.8	na	na	na	na
	LFCS-47	10/26/2017	na	<8.05	29.1	na	na	na	na
	LFCS-48	10/26/2017	na	<7.56	16.3	na	na	na	na
	LFCS-49	10/30/2017	na	<7.24	20.0	na	na	na	na
	LFCS-50	10/30/2017	na	<7.40	18.5	na	na	na	na
	LFCS-51	10/30/2017	na	<7.38	45.6	na	na	na	na
	LFCS-52	10/30/2017	na	<7.05	39.5	na	na	na	na
	LFCS-53	10/30/2017	na	<6.96	9.65	na	na	na	na
	LFCS-54	10/30/2017	na	<7.00	41.1	na	na	na	na
	LFCS-55	10/30/2017	na	<7.17	11.4	na	na	na	na
	LFCS-56	10/31/2017	na	<6.87	12.1	na	na	na	na
	LFCS-57	10/31/2017	na	<6.82	19.9	na	na	na	na

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Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Northern Landfill Area	LFCS-58	11/1/2017	na	<7.42	37.9	na	na	na	na
	LFCS-59	11/1/2017	na	<6.82	10.6	na	na	na	na
	LFCS-60	11/1/2017	na	8.18	51.6	na	na	na	na
	LFCS-61	11/1/2017	na	<6.93	24.5	na	na	na	na
	LFCS-62	11/1/2017	na	<7.05	36.9	na	na	na	na
	LFCS-63	11/2/2017	na	<7.26	33.7	na	na	na	na
	LFCS-64	11/2/2017	na	<7.17	12.5	na	na	na	na
	LFCS-65	11/2/2017	na	<7.22	13.4	na	na	na	na
	LFCS-66	11/2/2017	na	<7.47	43.0	na	na	na	na
	LFCS-67	11/2/2017	na	<7.41	22.6	na	na	na	na
	LFCS-68	11/3/2017	na	<6.30	12.6	na	na	na	na
	LFCS-69	11/3/2017	na	<6.45	19.9	na	na	na	na
	LFCS-70	11/3/2017	na	<7.44	6.72	na	na	na	na
	LFCS-71	11/6/2017	na	<7.49	10.0	na	na	na	na
	LFCS-72	11/6/2017	na	<6.67	9.39	na	na	na	na
	LFCS-73	11/6/2017	na	<6.24	17.7	na	na	na	na
	LFCS-74	11/6/2017	na	<7.18	14.2	na	na	na	na
	LFCS-75	11/6/2017	na	<7.31	5.08	na	na	na	na
	LFCS-76	11/6/2017	na	<6.94	31.4	na	na	na	na
	LFCS-77	11/6/2017	na	<7.10	11.3	na	na	na	na
	LFCS-78	11/6/2017	na	<7.44	15.5	na	na	na	na
	LFCS-79	11/6/2017	na	<7.15	4.78	na	na	na	na
	LFCS-80	11/6/2017	na	<7.37	9.92	na	na	na	na
	LFCS-81	11/6/2017	na	<7.00	9.73	na	na	na	na
	LFCS-82	11/6/2017	na	<8.27	6.01	na	na	na	na
	LFCS-83	11/7/2017	na	<7.29	8.88	na	na	na	na
	LFCS-84	11/7/2017	na	<7.28	12.7	na	na	na	na
	LFCS-85	11/7/2017	na	<7.14	19.7	na	na	na	na
	LFCS-86	11/7/2017	na	<6.68	18.6	na	na	na	na
	LFCS-87	11/8/2017	na	<7.19	5.84	na	na	na	na
	LFCS-88	11/8/2017	na	<7.35	8.59	na	na	na	na
	LFCS-89	11/8/2017	na	<7.38	10.4	na	na	na	na
	LFCS-90	11/9/2017	na	<7.31	12.8	na	na	na	na
	LFCS-91	11/9/2017	na	<7.38	13.6	na	na	na	na
	LFCS-92	11/14/2017	na	<7.26	9.82	na	na	na	na

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			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Revetment Area	RVCS-1	11/28/2017	na	<8.72	29.6	na	na	na	na
	RVCS-2	11/29/2017	na	<8.87	45.4	na	na	na	na
	RVCS-3	11/30/2017	na	<7.25	20.4	na	na	na	na
	RVCS-4	12/1/2017	na	<7.23	23.2	na	na	na	na
	RVCS-5	12/4/2017	na	<7.44	18.6	na	na	na	na
	RVCS-6	12/5/2017	na	7.92	14.6	na	na	na	na
	RVCS-7	12/6/2017	na	<7.33	28.9	na	na	na	na
	RVCS-8	12/11/2017	na	<7.44	31.4	na	na	na	na
	RVCS-9	12/12/2017	na	<7.32	20.3	na	na	na	na
	RVCS-10	12/13/2017	na	<7.22	20.8	na	na	na	na
	RVCS-11SW	12/13/2017	na	<7.43	28.8	na	na	na	na
	RVCS-12SW	1/31/2018	na	24.50	113	na	na	na	na
	RVCS-13SW**	2/14/2018	na	**50.60**	200	na	na	na	na
	RVCS-135W-B	2/21/2018	na	32.80	651	na	na	na	na
	RVCS-14SW	2/14/2018	na	40.80	243	na	na	na	na
Drainage Swale	DSCS-01	1/29/2018	na	<7.84	45.2	na	na	na	na
	DSCS-02	1/29/2018	na	<7.94	40.9	na	na	na	na
	DSCS-03	1/30/2018	na	<8.21	42.6	na	na	na	na
	DSCS-04	1/30/2018	na	<7.82	78.3	na	na	na	na
	DSCS-05	1/31/2028	na	<7.80	16.2	na	na	na	na
	DSCS-06	2/7/2018	na	<7.45	12.9	na	na	na	na
	DSCS-07	2/8/2018	na	<7.30	51.7	na	na	na	na
	DSCS-08	2/8/2018	na	<7.25	42.3	na	na	na	na
	DSCS-07	2/12/2018	na	<7.34	30.3	na	na	na	na
	DCSC-08	2/13/2018	na	<7.34	47.0	na	na	na	na
	DSCS-10	3/22/2018	na	<7.47	46.7	na	na	na	na
	DSCS-11	3/26/2018	na	<7.43	20.5	na	na	na	na
Fabri-Form	FFCS-1	2/27/2018	na	<7.45	55.5	na	na	na	na
	FFCS-2	2/28/2018	na	<7.45	8.14	na	na	na	na
Drainage	DD-1	4/5/2018	na	<7.38	255	na	na	na	na
	DD-2	4/5/2018	na	<7.35	202	na	na	na	na
	DD-3	4/5/2018	na	<7.40	24.1	na	na	na	na
	DD-4	4/5/2018	na	<7.37	259	na	na	na	na
	DD-5	4/5/2018	na	<7.46	11.3	na	na	na	na
	DD-6	4/5/2018	na	<7.34	94.1	na	na	na	na
	DD-7***	4/6/2018	na	39.60	425	na	na	na	na
	DD-8***	4/6/2018	na	**113.00**	607	na	na	na	na
	DD-9***	4/6/2018	na	**105.00**	731	na	na	na	na
	DD-10	4/6/2018	na	20.70	183	na	na	na	na
	DD-11	4/6/2018	na	8.84	380	na	na	na	na
	DD-12	4/6/2018	na	<7.44	172	na	na	na	na
	DD-13	4/6/2018	na	<7.45	128	na	na	na	na
	DD-14	4/6/2018	na	<7.48	139	na	na	na	na
	DD-15	4/6/2018	na	<7.48	110	na	na	na	na
	DD-16	4/6/2018	na	<7.44	176	na	na	na	na

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Drainage	**DD-17**	4/12/2018	na	17.80	158	na	na	na	na
	DD-18* **	4/12/2018	na	**43.30**	348	na	na	na	na
	DD-19	4/12/2018	na	9.22	112	na	na	na	na
	DD-20	4/12/2018	na	17.20	146	na	na	na	na
	DD-21	4/12/2018	na	<7.34	230	na	na	na	na
	DD-22	4/12/2018	na	<7.45	233	na	na	na	na
	DD-23	4/12/2018	na	<7.42	201	na	na	na	na
	DD-24	4/12/2018	na	<7.33	170	na	na	na	na
	DD-25	4/12/2018	na	8.10	134	na	na	na	na
	DD-26	4/12/2018	na	13.60	197	na	na	na	na
	DD-27	4/18/2018	na	<7.48	265	na	na	na	na
	DD-28	4/18/2018	na	<7.36	87.8	na	na	na	na
	DD-29	4/18/2018	na	<7.46	201	na	na	na	na
	DD-30	4/18/2018	na	19.50	496	na	na	na	na
	DD-31	4/18/2018	na	14.00	147	na	na	na	na
	DD-32	4/18/2018	na	10.70	202	na	na	na	na
	DD-33	4/20/2018	na	<7.49	174	na	na	na	na
	DD-34	4/20/2018	na	<7.43	205	na	na	na	na
	DD-35* **	4/20/2018	na	**43.00**	348	na	na	na	na
	DD-36	4/20/2018	na	<7.44	157	na	na	na	na
	DD-37	4/20/2018	na	<7.47	116	na	na	na	na
	DD-38* **	5/2/2018	na	**59.40**	403	na	na	na	na
	DCS-1	4/9/2018	na	<7.48	79.1	na	na	na	na
	DCS-2	4/9/2018	na	<7.47	44.2	na	na	na	na
	DCS-3	4/9/2018	na	<7.38	32.6	na	na	na	na
	DCS-4	4/10/2018	na	<7.44	63.4	na	na	na	na
	DCS-5	4/10/2018	na	<7.35	24.4	na	na	na	na
	DCS-6	4/10/2018	na	<7.46	70.0	na	na	na	na
	DCS-7	4/10/2018	na	<7.41	12.6	na	na	na	na
	DCS-8	4/10/2018	na	<7.47	20.8	na	na	na	na
	DCS-9	4/10/2018	na	<7.47	10.1	na	na	na	na
	DCS-10	4/10/2018	na	<7.43	15.4	na	na	na	na
	DCS-11	4/10/2018	na	<7.47	19.1	na	na	na	na
	DCS-12	4/11/2018	na	<7.43	8.35	na	na	na	na
	DCS-13	4/11/2018	na	10.40	34.1	na	na	na	na
	DCS-14	4/11/2018	na	<7.42	12.4	na	na	na	na
	DCS-15	4/11/2018	na	<7.35	10.5	na	na	na	na
	DCS-16	4/11/2018	na	<7.41	12.3	na	na	na	na
	DCS-17SW	4/11/2018	na	<7.46	14.9	na	na	na	na
	DCS-18SW	4/11/2018	na	<7.46	17.7	na	na	na	na
	DCS-19SW	4/11/2018	na	<7.38	10.5	na	na	na	na
	DCS-20SW	4/11/2018	na	<7.49	17.0	na	na	na	na
	DCS-21SW	4/11/2018	na	<7.46	14.6	na	na	na	na
	DCS-22SW	4/11/2018	na	<7.28	20.9	na	na	na	na
	DCS-23SW	4/12/2018	na	<7.32	54.2	na	na	na	na

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Drainage	**DCS-24SW**	4/12/2018	na	<7.45	46.8	na	na	na	na
	DCS-25	4/12/2018	na	<7.43	30.7	na	na	na	na
	DCS-26	4/13/2018	na	<7.44	33.4	na	na	na	na
	DCS-27	4/13/2018	na	8.32	51.1	na	na	na	na
	DCS-28	4/16/2018	na	<7.39	25.8	na	na	na	na
	DCS-29	4/16/2018	na	<7.39	31.7	na	na	na	na
	DCS-30	4/16/2018	na	<7.42	6.41	na	na	na	na
	DCS-31	4/16/2018	na	<7.40	26.0	na	na	na	na
	DCS-32	4/17/2018	na	<7.48	13.0	na	na	na	na
	DCS-33	4/17/2018	na	<7.37	49.6	na	na	na	na
	DCS-34	4/18/2018	na	<7.41	21.0	na	na	na	na
	DCS-35	4/18/2018	na	<7.33	33.1	na	na	na	na
	DCS-36	4/18/2018	na	<7.49	30.7	na	na	na	na
	DCS-37	4/18/2018	na	<7.49	73.0	na	na	na	na
	DCS-38	4/18/2018	na	<7.43	139	na	na	na	na
	DCS-39	4/18/2018	na	<7.31	38.3	na	na	na	na
	DCS-40	4/18/2018	na	<7.35	48.2	na	na	na	na
	DCS-41	4/18/2018	na	<7.43	17.0	na	na	na	na
	DCS-42SW	4/18/2018	na	<7.43	13.6	na	na	na	na
	DCS-43	4/18/2018	na	<7.43	50.2	na	na	na	na
	DCS-44	4/19/2018	na	<7.46	15.8	na	na	na	na
	DCS-45SW	4/19/2018	na	<7.33	19.0	na	na	na	na
	DCS-46SW2	4/19/2018	na	<7.46	19.9	na	na	na	na
	DCS-47SW	4/19/2018	na	<7.43	16.5	na	na	na	na
	DCS-48SW	4/24/2018	na	<7.38	25.1	na	na	na	na
	DCS-49SW	4/24/2018	na	<7.35	11.3	na	na	na	na
	DCS-50SW	4/24/2018	na	<7.41	21.2	na	na	na	na
	DCS-51	4/24/2018	na	<7.42	71.6	na	na	na	na
	DCS-52	4/24/2018	na	<7.28	107	na	na	na	na
	DCS-53	4/24/2018	na	<7.26	77.1	na	na	na	na
	DCS-54	4/24/2018	na	<7.34	72.6	na	na	na	na
	DCS-55	4/24/2018	na	<7.41	90.9	na	na	na	na
	DCS-56	4/25/2018	na	<7.43	40.9	na	na	na	na
	DCS-57	4/25/2018	na	<7.30	76.3	na	na	na	na
	DCS-58	4/25/2018	na	<7.15	108	na	na	na	na
	DCS-59	4/25/2018	na	<7.32	39.6	na	na	na	na
	DCS-60	4/25/2018	na	<7.39	84.5	na	na	na	na
	DCS-61	4/25/2018	na	<7.44	20.8	na	na	na	na
	DCS-62	4/25/2018	na	9.85	82.3	na	na	na	na
	DCS-63SW	4/25/2018	na	11.60	113	na	na	na	na
	DCS-64	4/25/2018	na	<7.38	40.0	na	na	na	na
	DCS-65SW	4/25/2018	na	<7.37	70.4	na	na	na	na
	DCS-66	4/26/2018	na	<7.23	135	na	na	na	na
	DCS-67	4/26/2018	na	22.00	229	na	na	na	na

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Drainage	**DCS-68**	4/26/2018	na	<7.34	75.0	na	na	na	na
	DCS-69	4/26/2018	na	<7.29	74.0	na	na	na	na
	DCS-70	4/30/2018	na	<7.30	94.2	na	na	na	na
	DCS-71	4/30/2018	na	<7.44	75.0	na	na	na	na
	DCS-72	4/30/2018	na	<7.04	77.6	na	na	na	na
	DCS-73	4/30/2018	na	<7.22	99.4	na	na	na	na
	DCS-74	4/30/2018	na	<7.34	100	na	na	na	na
	DCS-75	4/30/2018	na	<7.24	74.7	na	na	na	na
	DCS-76	4/30/2018	na	<7.44	110	na	na	na	na
	DCS-77	4/30/2018	na	7.52	102	na	na	na	na
	DCS-78	4/30/2018	na	<7.45	71.4	na	na	na	na
	DCS-79	4/30/2018	na	<7.38	114	na	na	na	na
	DCS-80SW	4/30/2018	na	8.81	183	na	na	na	na
	DCS-81	5/1/2018	na	<7.35	124	na	na	na	na
	DCS-82	5/1/2018	na	<7.24	54.9	na	na	na	na
	DCS-83	5/1/2018	na	<7.30	110	na	na	na	na
	DCS-84	5/7/2018	na	1.51J	74.7	na	na	na	na
	DCS-85SW	5/7/2018	na	27.00	266	na	na	na	na
	DCS-86SW	5/7/2018	na	1.88J	141	na	na	na	na
	DCS-87	5/7/2018	na	3.02J	95.4	na	na	na	na
	DCS-88	5/7/2018	na	3.76J	30.8	na	na	na	na
	DCS-89	5/7/2018	na	5.65J	30.7	na	na	na	na
	DCS-90	5/7/2018	na	0.59J	32.6	na	na	na	na
	DCS-91	5/7/2018	na	0.75J	44.2	na	na	na	na
	DCS-92	5/7/2018	na	1.97J	45.6	na	na	na	na
	DCS-93	5/8/2018	na	1.89J	66.3	na	na	na	na
	DCS-94	5/8/2018	na	2.64J	31.5	na	na	na	na
	DCS-95	5/8/2018	na	3.79J	34.8	na	na	na	na
	DCS-96SW	5/8/2018	na	2.82J	98	na	na	na	na
	DCS-97SW	5/8/2018	na	4.94J	82.1	na	na	na	na
	DCS-98	5/8/2018	na	2.03J	91.7	na	na	na	na
	DCS-99SW	5/8/2018	na	6.06J	135	na	na	na	na
	DCS-100	5/8/2018	na	6.25J	115	na	na	na	na
	DCS-101	5/8/2018	na	7.18J	165	na	na	na	na
	DCS-102SW	5/9/2018	na	<7.47	64.9	na	na	na	na
	DCS-103SW	5/9/2018	na	<7.46	60.7	na	na	na	na
	DCS-104SW	5/9/2018	na	<7.43	23.2	na	na	na	na
	DCS-105SW	5/9/2018	na	<7.44	21.7	na	na	na	na
	DCS-106	5/9/2018	na	<7.37	21.5	na	na	na	na
	DCS-107SW	5/9/2018	na	<7.29	10.1	na	na	na	na

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	Sample ID	Sample Date	HSRA Type 3 RRS Soil Standard (mg/kg)						
			Antimony	Arsenic	Barium	Beryllium	Nickel	Thallium	TPH-DRO
			10/BG	41.00	1000	3	420	10/BG	100
Substation Road	SRCS-01	8/9/2017	na	18.80	20.8	na	na	na	na
	SRCS-02**	8/9/2017	na	**98.90**	15.2	na	na	na	na
	SRCS-02A	8/14/2017	na	<6.96	5.62	na	na	na	na
	SRCS-02A-N	8/14/2017	na	25.50	8.22	na	na	na	na
	SRCS-02A-W	8/14/2017	na	<6.32	11.6	na	na	na	na
Sandblasting Area	SBCS-01	6/8/2017	0.28	<6.34	na	na	9.27	<0.04	na
	SBCS-02	6/8/2017	<0.19	<5.67	na	na	6.11	<0.04	na
Parking Lot Area	PLCS-1	5/14/2018	na	<7.35	42.2	na	na	na	na
	PLCS-2	5/14/2018	na	<7.14	27.9	na	na	na	na
	PLCS-3SW	5/14/2018	na	<7.69	32.9	na	na	na	na
	PLCS-4	5/15/2018	na	<7.37	41.5	na	na	na	na
	PLCS-5SW	5/15/2018	na	<7.44	55.8	na	na	na	na
	PLCS-6	5/15/2018	na	<7.72	90.8	na	na	na	na
	PLCS-7SW	5/15/2018	na	<7.32	18.7	na	na	na	na
	PLCS-8	5/15/2018	na	<7.27	29.0	na	na	na	na
	PLCS-9SW	5/15/2018	na	<7.11	9.67	na	na	na	na
	PLCS-10	5/15/2018	na	<7.25	44.4	na	na	na	na
	PLCS-11SW	5/15/2018	na	<7.37	17.8	na	na	na	na
	PLCS-12SW	5/16/2018	na	<7.38	20.8	na	na	na	na
	PLCS-13SW	5/16/2018	na	<7.41	38.5	na	na	na	na
	PLCS-14SW	5/16/2018	na	<7.37	20.9	na	na	na	na
	PLCS-15	5/16/2018	na	<7.34	16.1	na	na	na	na
	PLCS-16SW	5/16/2018	na	<7.28	12.3	na	na	na	na
	PLCS-17	5/16/2018	na	<7.55	7.74	na	na	na	na
	PLCS-18SW	5/16/2018	na	<7.06	19.3	na	na	na	na
	PLCS-19	5/16/2018	na	<7.16	11.4	na	na	na	na
	PLCS-20SW	5/16/2018	na	<7.47	8.18	na	na	na	na
	PLCS-21	5/16/2018	na	<7.31	16.1J	na	na	na	na
	PLCS-22SW	5/16/2018	na	<7.48	9.47J	na	na	na	na
	PLCS-23	5/17/2018	na	<7.49	32.7	na	na	na	na
	PLCS-24SW	5/17/2018	na	<7.31	8.73	na	na	na	na
	PLCS-25SW	5/17/2018	na	<7.12	13.9	na	na	na	na
	PLCS-26	5/17/2018	na	<7.39	26.5	na	na	na	na
	PLCS-27SW	5/17/2018	na	<7.31	18.8	na	na	na	na
	PLCS-28SW	5/17/2018	na	<7.50	15.9	na	na	na	na
	PLCS-29	5/17/2018	na	<7.55	37.3	na	na	na	na
	PLCS-30SW	5/17/2018	na	<7.46	14.0	na	na	na	na
	PLCS-31SW	5/18/2018	na	<7.41	25.4	na	na	na	na

Table 2
Summary of Soil Analytical Results - Excavation Confirmation Sampling
Georgia Power Plant Kraft
Port Wentworth, Georgia

Excavation Area	**Sample ID**	**Sample Date**	**HSRA Type 3 RRS Soil Standard (mg/kg)**						
			Antimony	**Arsenic**	**Barium**	**Beryllium**	**Nickel**	**Thallium**	**TPH-DRO**
			10/BG	**41.00**	**1000**	**3**	**420**	**10/BG**	**100**
Parking Lot Area	**PLCS-32**	5/18/2018	na	<7.40	95.0	na	na	na	na
	PLCS-33SW	5/18/2018	na	<7.42	14.9	na	na	na	na
	PLCS-34SW	5/18/2018	na	<7.35	22.7	na	na	na	na
	PLCS-35	5/18/2018	na	<7.43	39.3	na	na	na	na
	PLCS-36SW	5/18/2018	na	<7.45	14.2	na	na	na	na

Notes:
1. Analytical results are reported in milligrams per liter (mg/L).
2. < indicates the analyte was not detected above the laboratory reporting limit.
3. J indicates the analyte was detected between the laboratory method detection limit
4. ns indicates not sampled.

#/BG HSRA Notification Concentration (NC) greater of number (#) or Background Concentration (BG)

Shaded cell indicates concentration greater than Type 1 and 3 RRS.

Bold result indicates concentration greater than Type 3 RRS for Surface Soil.

* Soil over excavated around sample location, in an 15 foot by 15 foot area down to groundwater.

** 3 feet of soil over excavated around sample location, in an 15 foot by 15 foot area

*** DD- samples over excavated and confirmation samples (DCS) collected and analyzed to confirm removal

Prepared By BS
Checked By MP

Table 3
Groundwater Elevation Data
Georgia Power Plant Kraft
Port Wentworth, Georgia

Groundwater Elevation Data																
Well ID	**Northing NAD 83**	**Easting NAD 83**	**Ground Surface Elevation (ft)**	**Top of Casing Elevation (ft)**	**Total Depth of Well BTOC[1] (ft)**	**Depth to Top of Screen BTOC[1] (ft)**	**Depth to Water BTOC (ft) - 08/10/16**	**Groundwater Elevation - 08/10/16**	**Depth to Water BTOC (ft) - 09/01/16**	**Groundwater Elevation - 09/01/16**	**Depth to Water BTOC (ft) - 01/30/17**	**Groundwater Elevation - 01/30/17**	**Depth to Water BTOC (ft) - 08/17/17**	**Groundwater Elevation - 08/17/17**	**Depth to Water BTOC (ft) - 02/13/18**	**Groundwater Elevation - 02/13/18**
KMW-01	782606.96	970247.51	15.00	17.96	29.30	19.30	14.20	3.76	14.29	3.75	12.51	5.53	11.52	6.44	13.76	4.20
KMW-02	782309.01	969995.09	11.80	14.78	28.26	18.26	10.97	3.81	10.95	3.87	9.19	5.63	8.63	6.15	10.04	4.74
KMW-03	783730.8	970135.672	nm	17.36	30.38	20.38	ni	ni	ni	ni	ni	ni	ni	ni	15.11	2.25
KMW-04	782885.55	971275.02	11.10	13.92	26.02	16.02	9.62	4.30	9.60	4.46	7.02	7.04	7.89	6.03	10.16	3.76
KMW-05	783101.75	971022.00	15.52	18.58	28.55	18.55	14.79	3.79	14.84	3.85	12.41	6.28	12.35	6.23	14.82	3.76
KMW-06	783005.99	970607.99	16.56	19.60	38.28	28.28	16.06	3.54	16.18	3.51	13.97	5.72	13.04	6.56	15.91	3.69
KMW-07	782948.06	970356.80	16.05	19.04	28.46	18.46	15.44	3.60	15.54	3.62	13.92	5.24	12.76	6.28	15.13	3.91
KMW-08	782723.08	969713.75	nm	17.51	24.80	14.80	ni	ni	ni	ni	ni	ni	10.00	7.51	12.74	4.77
KMW-09	782233.03	969788.78	nm	14.88	32.99	22.99	ni	ni	ni	ni	ni	ni	8.71	6.17	9.85	5.03
KMW-10	782179.78	970151.66	nm	13.54	33.07	23.07	ni	ni	ni	ni	ni	ni	7.68	5.86	9.03	4.51
KMW-11	782284.05	970593.91	nm	13.13	33.10	23.10	ni	ni	ni	ni	ni	ni	8.49	4.64	9.68	3.45
KMW-12	782367.68	970979.62	nm	12.29	32.85	22.85	ni	ni	ni	ni	ni	ni	8.27	4.02	9.10	3.19
KMW-13	783397.51	969641.858	nm	18.24	28.75	18.75	ni	ni	ni	ni	ni	ni	ni	ni	15.22	3.02
MW-15*	783887.82	971125.04	13.40	9.64	16.57	6.57	7.17	2.47	5.81	3.83	6.46	3.18	abandoned	abandoned	abandoned	abandoned
MW-15A*	783752.58	971126.58	13.40	17.42	29.98	19.98	15.99	1.43	nm	nm	14.75	2.67	abandoned	abandoned	abandoned	abandoned
MW-15A(R)	783750.52	971130.78	nm	16.73	24.16	14.16	ni	ni	ni	ni	ni	ni	12.88	3.85	14.60	2.13
MW-15B*	783893.19	971067.04	nm	11.14	28.50	18.50	9.40	1.74	nm	nm	nm	nm	abandoned	abandoned	abandoned	abandoned
MW-15C*	783801.17	971244.31	12.81	16.00	33.25	23.25	14.91	1.09	13.41	2.59	13.59	2.41	abandoned	abandoned	abandoned	abandoned
MW-15-C(R)	783799.18	971233.76	nm	15.22	26.00	16.00	ni	ni	ni	ni	ni	ni	12.72	2.50	14.23	0.99
MW-15D*	783868.52	971124.11	8.00	11.12	26.98	16.98	9.48	1.64	8.39	2.73	8.75	2.37	abandoned	abandoned	abandoned	abandoned
MW-15D(R)	783840.68	971134.77	nm	12.69	23.16	13.16	ni	ni	ni	ni	ni	ni	9.49	3.20	10.94	1.75
MW-15E*	783757.76	971129.25	13.30	16.74	21.46	11.46	14.32	2.42	13.70	3.04	13.12	3.62	nm	nm	nm	nm
MW-33	782316.51	970930.99	8.96	8.86	nm	nm	5.79	3.07	5.71	3.15	4.85	4.01	nm	nm	nm	nm
MW-34	782236.59	970566.15	9.87	9.52	nm	nm	nm	nm	6.18	3.34	4.88	4.64	nm	nm	nm	nm
MW-35	782383.10	971216.90	7.70	10.11	nm	nm	5.83	4.28	5.90	4.21	4.52	5.59	nm	nm	nm	nm
MW-37	782351.24	971100.59	8.40	11.45	nm	nm	7.46	3.99	7.39	4.06	6.30	5.15	nm	nm	nm	nm
MW-38	782384.56	971456.20	8.70	11.81	nm	nm	8.40	3.41	8.10	3.71	7.39	4.42	nm	nm	nm	nm
MW-39A	782456.39	971562.77	8.18	11.23	nm	nm	8.06	3.17	7.88	3.35	7.53	3.70	nm	nm	nm	nm

Notes:

1. BTOC - Below Top of Casing
2. nm - Not Measured
3. ni - Not Installed

* - Monitoring Wells Were Abandoned in April 2017

Well reference elevations displayed are from survey work conducted by Thomas & Hutton in August 2017.

Prepared By BS
Checked By MP

Table 4
Summary of Groundwater Analytical Results - Former Ash Pond Area
Georgia Power Plant Kraft
Port Wentworth, Georgia

Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Fluoride	Lead	Mercury	Selenium	Thallium
		Constituents Detected with HSRA Type 1 & 3 RRS Groundwater Standard (mg/l)										
		0.006	**0.01**	**2**	**0.004**	**0.005**	**0.1**	**4**	**0.015**	**0.002**	**0.05**	**0.002**
KMW-01	9/1/2016	<0.0030	0.0081	0.0614	0.0021 J	0.0001 J	<0.0100	0.60	0.0002 J	<0.00050	0.0050 J	0.0004 J
	1/30/2017	<0.0030	0.0073	0.0448	0.0032	0.0002 J	0.0032 J	0.65	0.0014 J	0.00006 J	0.0092 J	0.0008 J
	2/7/2018	na	0.0032 J	na	na	na	na	na	na	na	na	na
KMW-02	9/1/2016	<0.0030	0.0095	0.0666	<0.0030	<0.0010	<0.0100	0.12 J	<0.0050	<0.00050	<0.0100	<0.0010
	1/30/2017	<0.0030	**0.0374**	0.053	<0.0030	<0.0010	0.0017 J	0.13 J	<0.0050	<0.00050	<0.0100	<0.0010
	7/25/2017	na	**0.0300**	na	na	na	na	na	na	na	na	na
	7/25/2017	na	**0.0310**	na	na	na	na	na	na	na	na	na
	7/25/2017	na	**0.0310**	na	na	na	na	na	na	na	na	na
	2/7/2018	na	**0.0275**	na	na	na	na	na	na	na	na	na
KMW-03	2/20/2018	na	0.0055	na	na	na	na	na	na	na	na	na
KMW-04	7/13/2017	na	0.0038 J	na	na	na	na	na	na	na	na	na
	2/6/2018	na	0.0032 J	na	na	na	na	na	na	na	na	na
KMW-05	9/1/2016	<0.0030	0.0088	0.0644	0.0007 J	<0.0010	<0.0100	0.34	0.0001 J	<0.00050	0.0036 J	<0.0010
	1/30/2017	<0.0030	0.0062	0.0445	0.0011 J	<0.0010	0.0015 J	0.11 J	0.0004 J	0.00012 J	0.0046 J	0.0004 J
	2/6/2018	na	0.0012 J	na	na	na	na	na	na	na	na	na
KMW-06	9/1/2016	<0.0030	0.0020 J	0.0794	0.0001 J	<0.0010	<0.0100	0.26 J	<0.0050	<0.00050	0.0021 J	<0.0010
	1/30/2017	<0.0030	0.0041 J	0.0314	0.0028 J	<0.0010	<0.0100	1.3	<0.0050	0.000065 J	0.011	0.0003 J
	2/6/2018	na	0.0026 J	na	na	na	na	na	na	na	na	na
KMW-07	9/1/2016	<0.0030	0.0045 J	0.0520	0.0004 J	<0.0010	0.0010 J	0.40	<0.0050	<0.00050	0.0030 J	<0.0010
	1/30/2017	<0.0030	0.0063	0.0437	0.0011 J	<0.0010	0.0018 J	0.99	0.0003 J	<0.00050	0.0165	<0.0010
	2/6/2018	na	0.0025 J	na	na	na	na	na	na	na	na	na
KMW-08	8/4/2017	na	0.0008 J	na	na	na	na	na	na	na	na	na
	2/8/2018	na	<0.005	na	na	na	na	na	na	na	na	na
KMW-09	8/3/2017	na	0.0009 J	na	na	na	na	na	na	na	na	na
	2/8/2018	na	<0.005	na	na	na	na	na	na	na	na	na
KMW-10	8/4/2017	na	0.0011 J	na	na	na	na	na	na	na	na	na
	2/8/2018	na	0.0023 J	na	na	na	na	na	na	na	na	na
KMW-11	2/8/2018	na	<0.005	na	na	na	na	na	na	na	na	na
KMW-12	2/8/2018	na	<0.005	na	na	na	na	na	na	na	na	na
KMW-13	2/19/2018	na	0.0011 J	na	na	na	na	na	na	na	na	na

Notes:
1. Analytical results are reported in milligrams per liter (mg/L).
2. < indicates the analyte was not detected above the laboratory reporting limit.
3. J indicates the analyte was detected between the laboratory method detection limit and laboratory reporting limit.
4. Shaded bold indicates an exceedance of the protection standard.
5. ns indicates not sampled.

Prepared By BS
Checked By MP

Table 5
Summary of Radium Results in Groundwater - Former Ash Pond Area
Georgia Power Plant Kraft
Port Wentworth, Georgia

Well ID	Sample Date	Combined Radium 226 + 228	Radium 226	Radium 228	Combined Radium Uncertainty
KMW-01	9/1/2016	**7.40**	1.72	**5.68**	± 1.69
	1/30/2017	**11.50**	2.37	**9.08**	± 2.42
	8/16/2017	**12.90**	1.51	**11.40**	± 2.68
	2/7/2018	**10.30**	2.27	**8.02**	± 2.11
	5/7/2018	**12.30**	2.41	**9.85**	± 2.68
KMW-02	9/1/2016	1.39	0.48	0.915U	± 0.756
	1/30/2017	1.03 U	0.326U	0.702U	± 0.760
	2/7/2018	2.72	1.51	1.21	± 1.04
KMW-03	2/19/2018	2.51	1.30	1.21	± 0.934
KMW-04	7/13/2017	1.12	0.37	0.75	0.562
	2/6/2018	2.04	0.59	1.45	± 0.818
KMW-05	9/1/2016	**6.08**	1.32	4.76	± 1.46
	1/31/2017	**5.80**	1.39	4.41	± 1.34
	8/15/2017	**7.09**	1.26	**5.83**	± 1.63
	2/6/2018	**6.27**	1.90	4.37	± 1.56
KMW-06	9/1/2016	4.31	0.35	3.96	± 1.16
	1/31/2017	**6.90**	2.24	**5.41**	± 1.48
	8/15/2017	**9.44**	2.19	**7.25**	±2.08
	2/6/2018	**8.86**	3.28	**5.58**	± 1.99
KMW-07	9/1/2016	**7.26**	1.47	**5.79**	± 1.66
	1/30/2017	**6.21**	1.92	4.29	± 1.58
	8/15/2017	**10.40**	2.42	**7.99**	± 2.21
	2/6/2018	**10.50**	3.33	**7.14**	± 2.29
KMW-08	8/4/2017	0.781 U	0.62	0.165U	± 0.577
	2/8/2018	0.927 U	0.36	0.567U	± 0.616
KMW-09	2/8/2018	1.84	1.41	0.428U	± 0.852
KMW-10	8/4/2017	1.56	0.87	0.691U	± 0.747
	2/8/2018	1.25	0.58	0.673U	± 0.712
KMW-11	8/4/2017	1.74	1.40	0.343U	± 0.724
	2/8/2018	2.51	2.13	0.375U	± 1.05
KMW-12	8/4/2017	4.47	3.47	1.00	± 1.11
	2/8/2018	**5.57**	4.17	1.40	± 1.44
	5/7/2018	4.24	2.81	1.43	± 1.34
KMW-13	2/19/2018	1.21	0.86	0.349U	± 0.710
MW-15D(R)	8/4/2017	2.09	1.47	0.618U	± 0.777
	2/9/2018	3.67	2.27	1.40	± 0.880

Notes:
1. Analytical results are reported in picocuries per liter (pCi/L).
2. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory intruments could not produce as reliable of a value. Therefore, the value followed by U is qualified by the laboratory as estimated.
3. Shaded bold indicates an exceedance of the protection standard of 5 pCi/L.
4. Laboratory methods used for Radium 226 and 228 are EPA 9315 and EPA 9320, respectively.

Prepared By AC
Checked By KS

Table 6
Risk Reduction Standards - Groundwater
Georgia Power Plant Kraft
Port Wentworth, Georgia

Risk Reduction Standards - Groundwater				
Regulated Substance	**Type I RRS**	**Type 2 RRS**	**Type 3 RRS**	**Type 4 RRS**
Arsenic	0.010	0.00057	0.010	0.0019
Benzo(a)anthracene	0.0001	0.0085	0.0001	0.0286
Benzo(a)pyrene	0.0002	0.00085	0.0002	0.00286
Benzo(b)fluoranthene	0.0001	0.0085	0.0001	0.0286
Indeno(1,2,3-cd)pyrene	0.0001	0.0085	0.0001	0.0286

Notes:
Concentrations in mg/L

Prepared By BS
Checked By MP

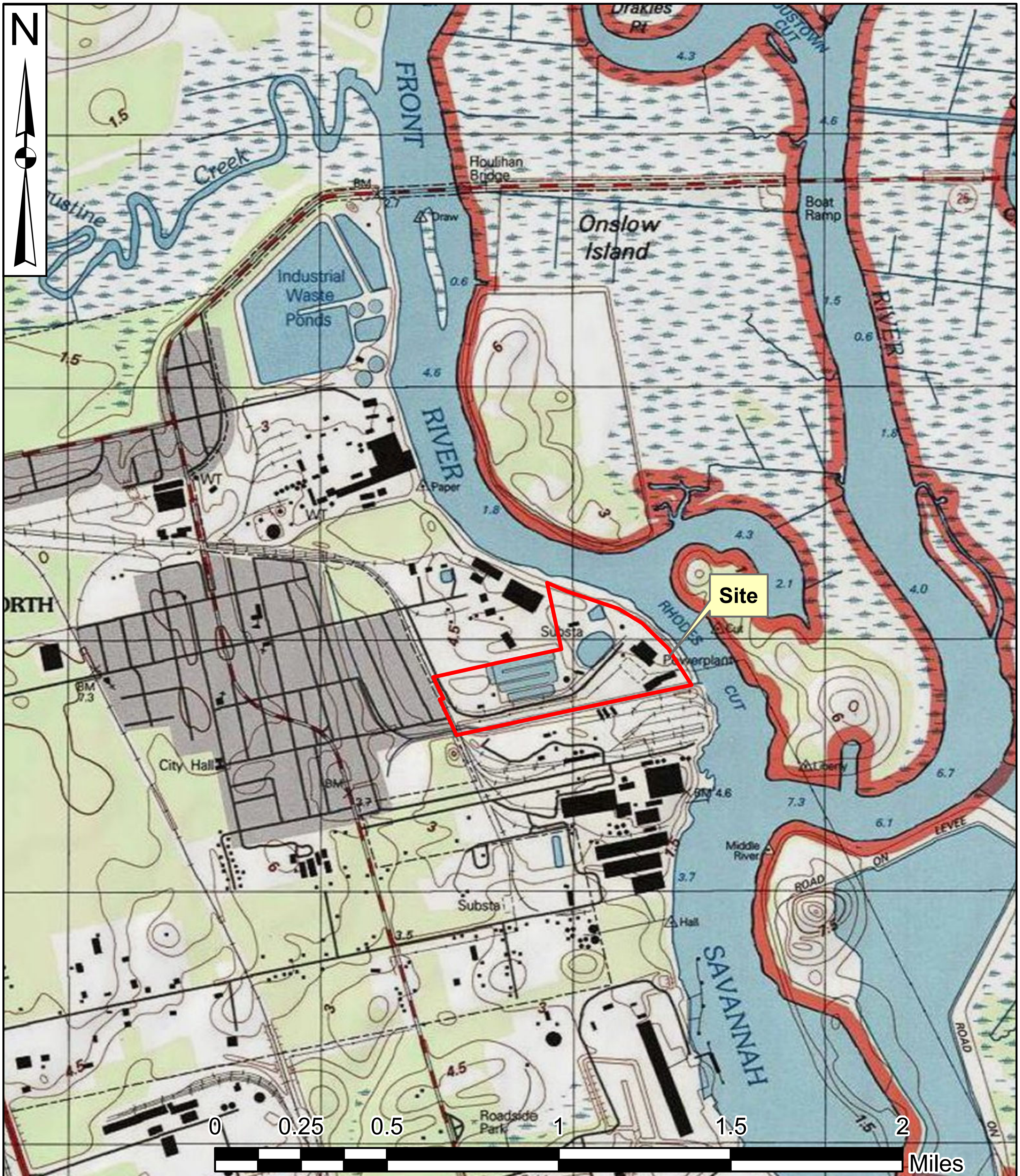
Table 7
Risk Reduction Standards - Soil
Georgia Power Plant Kraft
Port Wentworth, Georgia

Risk Reduction Standards - Soil						
Regulated Substance	**Type I RRS**	**Type 2 RRS**	**Type 3 RRS - Surface Soil**	**Type 3 RRS - GW Protection**	**Type 4 RRS - Surface Soil**	**Type 4 RRS - GW Protection**
Arsenic	20	5.84	38.0	41	5.84	5.84

Notes:
Concentrations in mg/kg

Prepared By BS
Checked By MP

FIGURES



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June 2018

Plant Kraft Site Vicinity (Topographic) Map

Port Wentworth, GA

Figure

1

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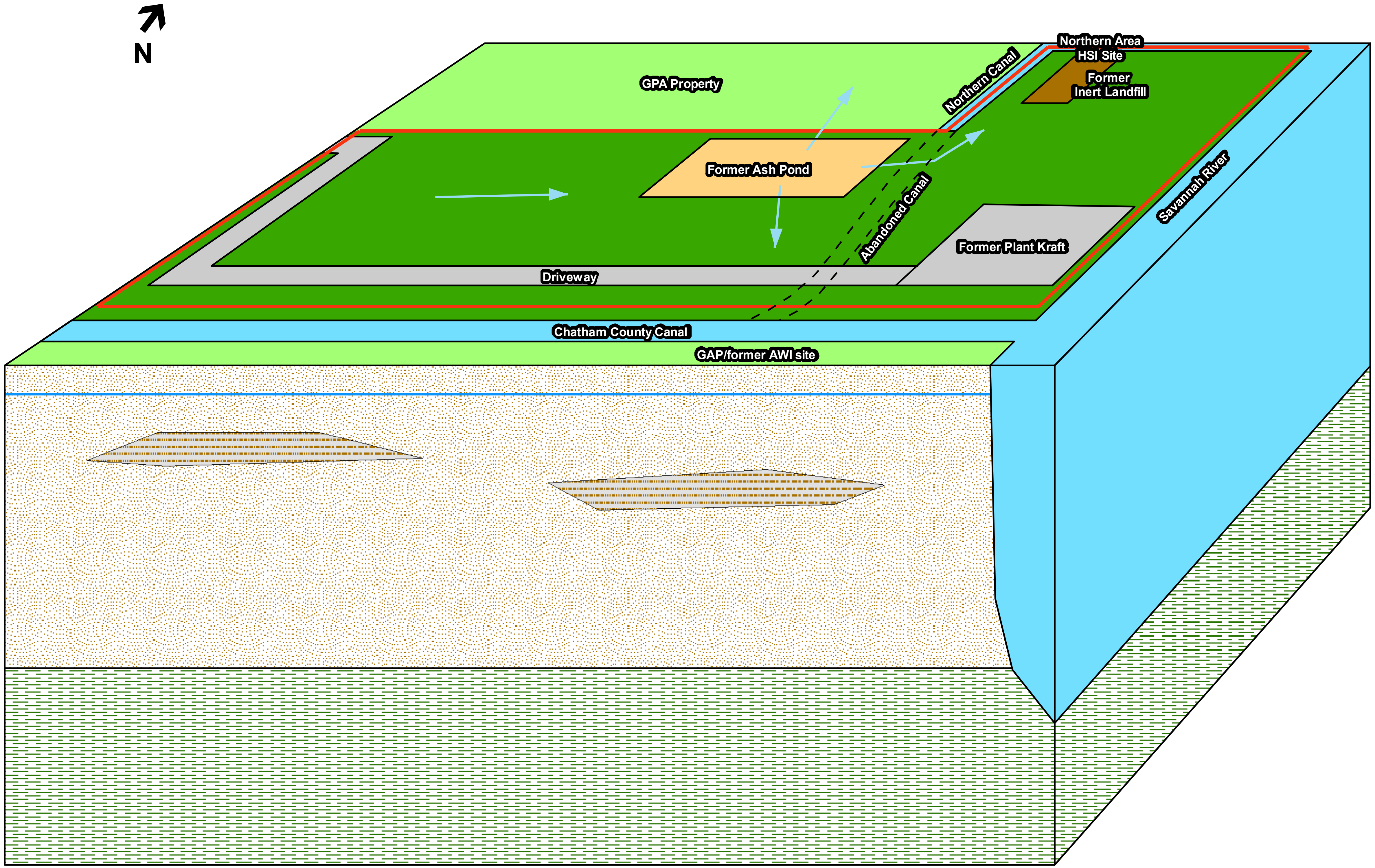
Plant Kraft
Site Map

Port Wentworth, GA

Figure 2



NOT TO SCALE

Legend

Site Model Features

- Abandoned Canal
- Plant Kraft Boundary
- Groundwater Flow Direction (February 2018)
- Site Features
- Groundwater Surface

Geology

- Sand
- Clay
- Hawthorn

Plant Kraft
Conceptual Site Model
Port Wentworth, GA

Figure

3

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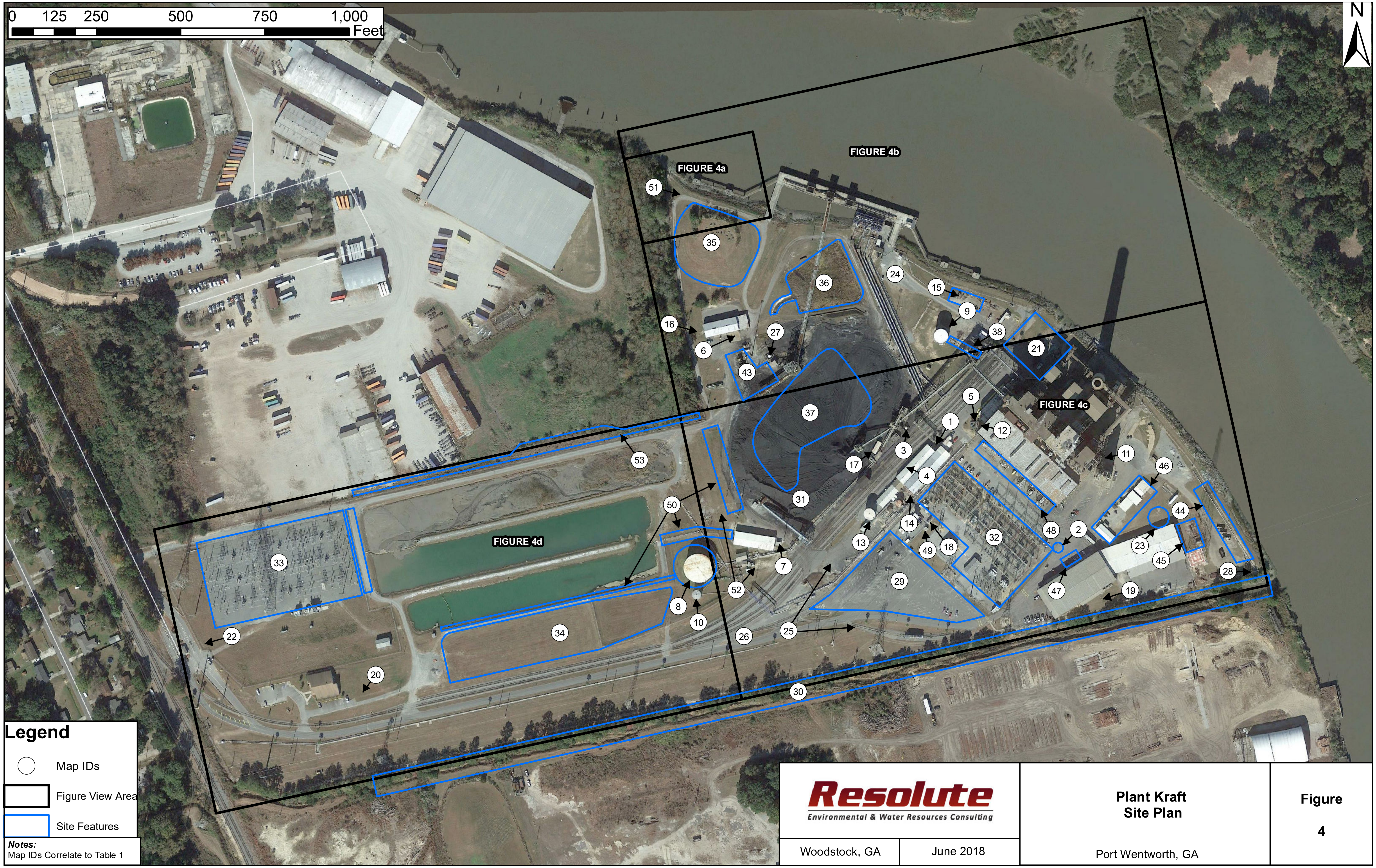

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Plant Kraft
Site Plan

Port Wentworth, GA

Figure
4

Legend

- GPC Monitoring Well
- Phase II Borings
- Property Boundary

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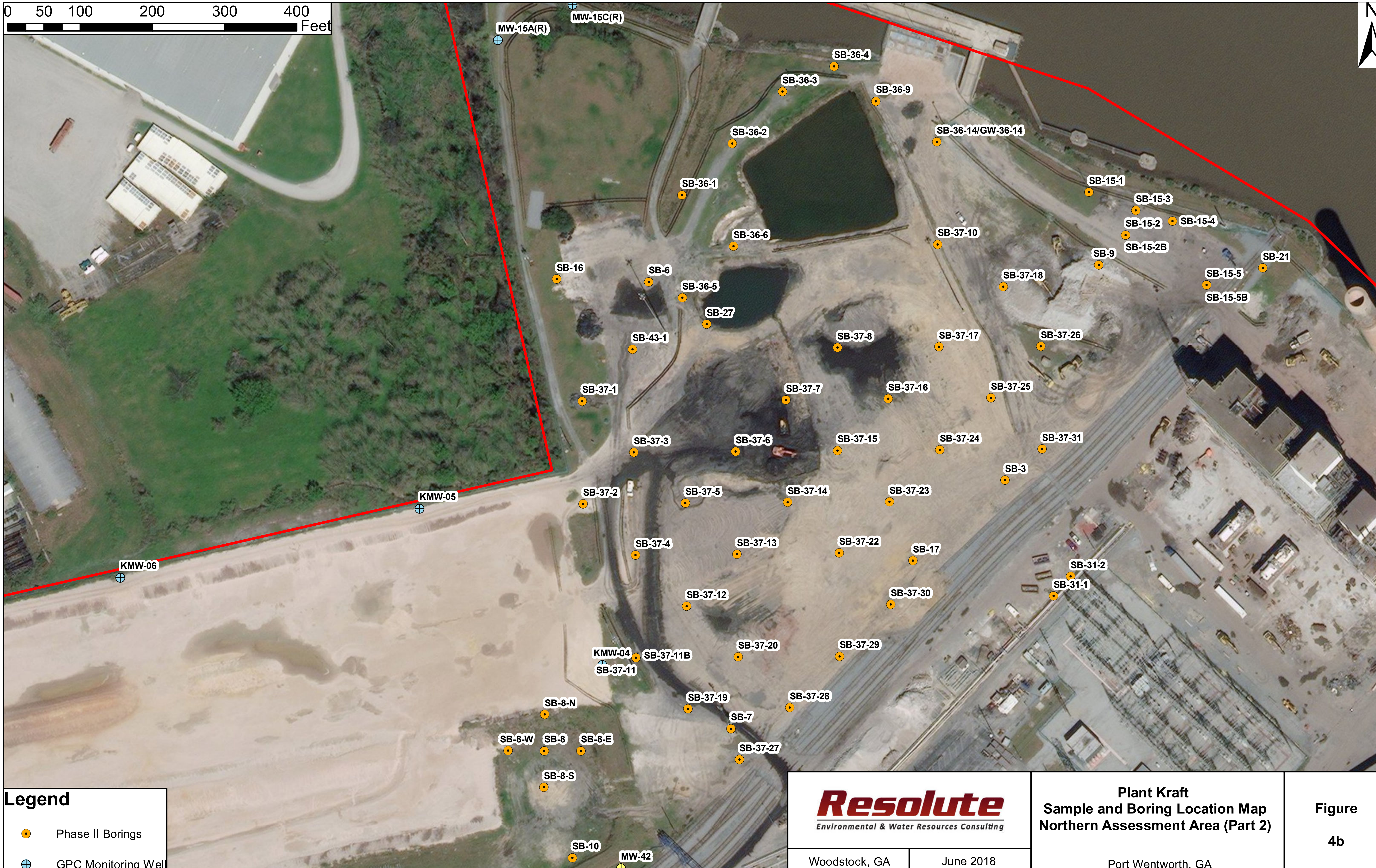
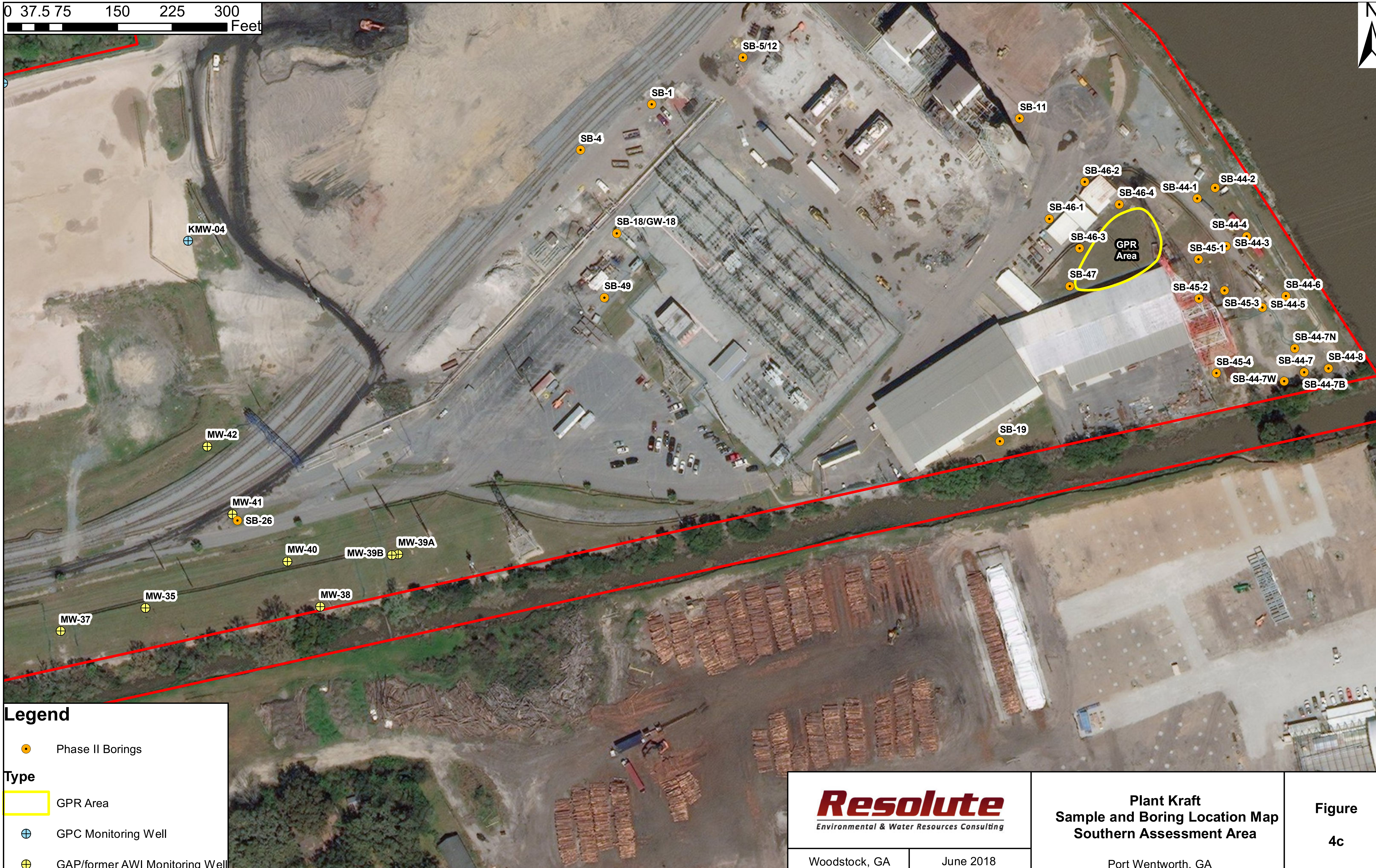
Plant Kraft
Sample and Boring Location Map
Northern Assessment Area (Part 1)
Port Wentworth, GA

Figure

4a


0 50 100 200 300 400
Feet
N
MW-15C(R)
MW-15A(R)
SB-36-4
SB-36-3
SB-36-9
SB-36-2
SB-36-14/GW-36-14
SB-36-1
SB-15-1
SB-15-3
SB-15-2
SB-15-4
SB-36-6
SB-37-10
SB-9
SB-15-2B
SB-21
SB-16
SB-6
SB-36-5
SB-37-18
SB-15-5
SB-15-5B
SB-27
SB-43-1
SB-37-8
SB-37-17
SB-37-26
SB-37-1
SB-37-7
SB-37-16
SB-37-25
SB-37-3
SB-37-6
SB-37-15
SB-37-24
SB-37-31
SB-3
KMW-05
SB-37-2
SB-37-5
SB-37-14
SB-37-23
SB-37-4
SB-37-13
SB-37-22
SB-17
KMW-06
SB-31-2
SB-31-1
SB-37-12
SB-37-30
KMW-04
SB-37-11B
SB-37-11
SB-37-20
SB-37-29
SB-37-19
SB-37-28
SB-8-N
SB-7
SB-8-W
SB-8
SB-8-E
SB-37-27
SB-8-S
SB-10
MW-42
Legend
Phase II Borings
GPC Monitoring Well
Resolute
Environmental & Water Resources Consulting
Woodstock, GA
June 2018
Plant Kraft
Sample and Boring Location Map
Northern Assessment Area (Part 2)
Port Wentworth, GA
Figure
4b



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Plant Kraft
Sample and Boring Location Map
Southern Assessment Area

Port Wentworth, GA

Figure

4c

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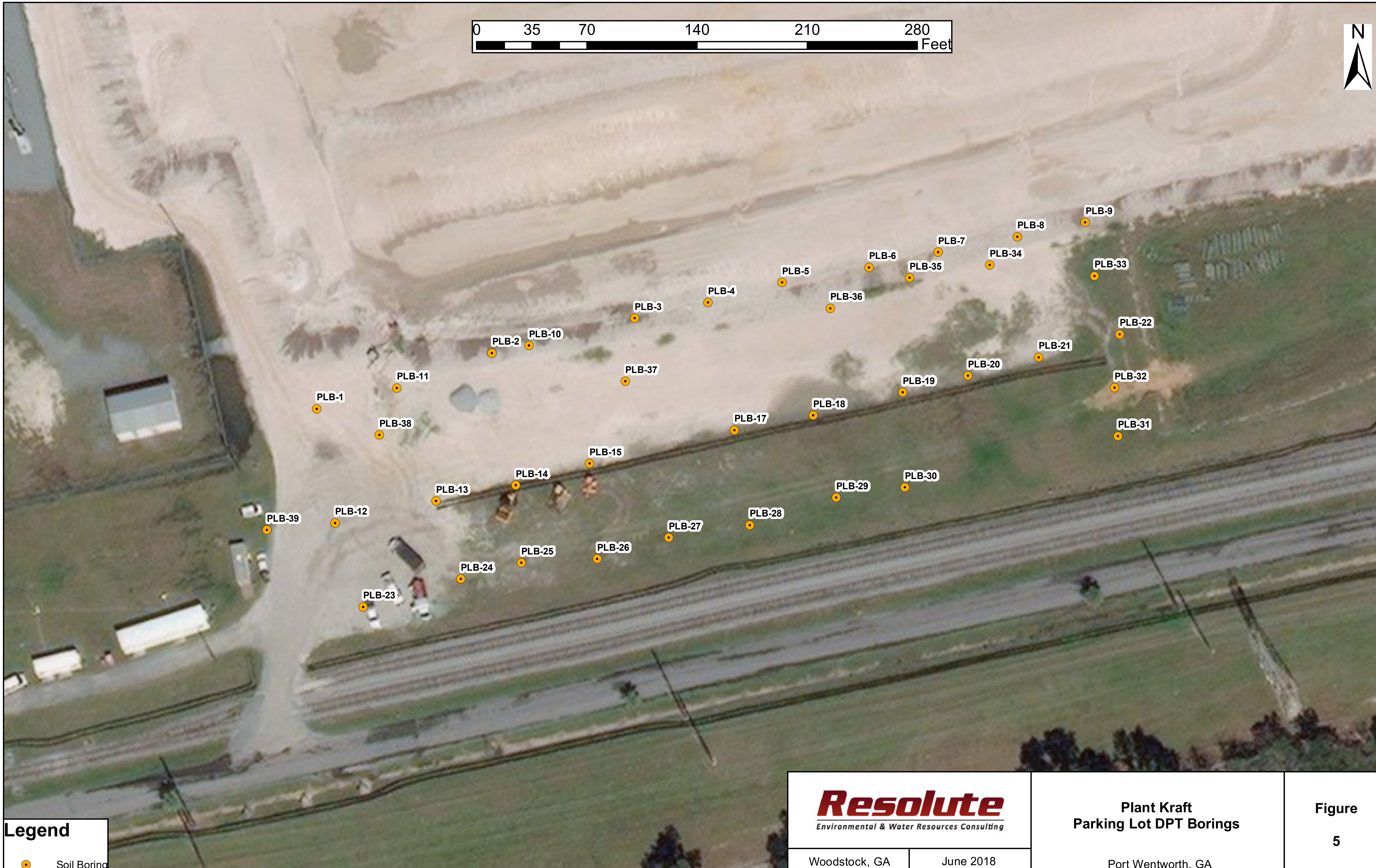
Plant Kraft
Sample and Boring Location Map
Western Assessment Area

Port Wentworth, GA

Figure

4d



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Plant Kraft
Parking Lot DPT Borings

Port Wentworth, GA

Figure

5

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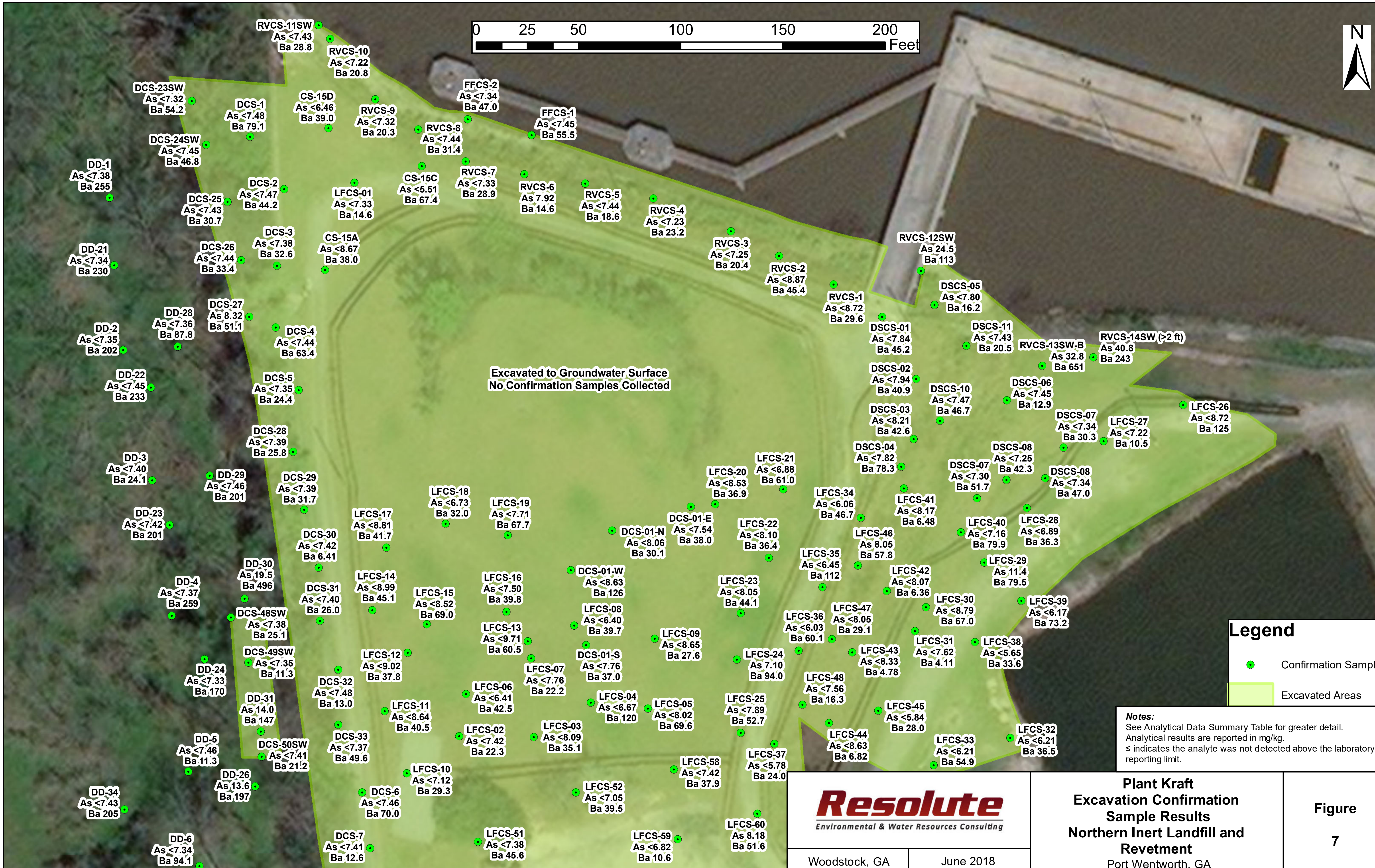
Plant Kraft
Extent of Excavation Areas

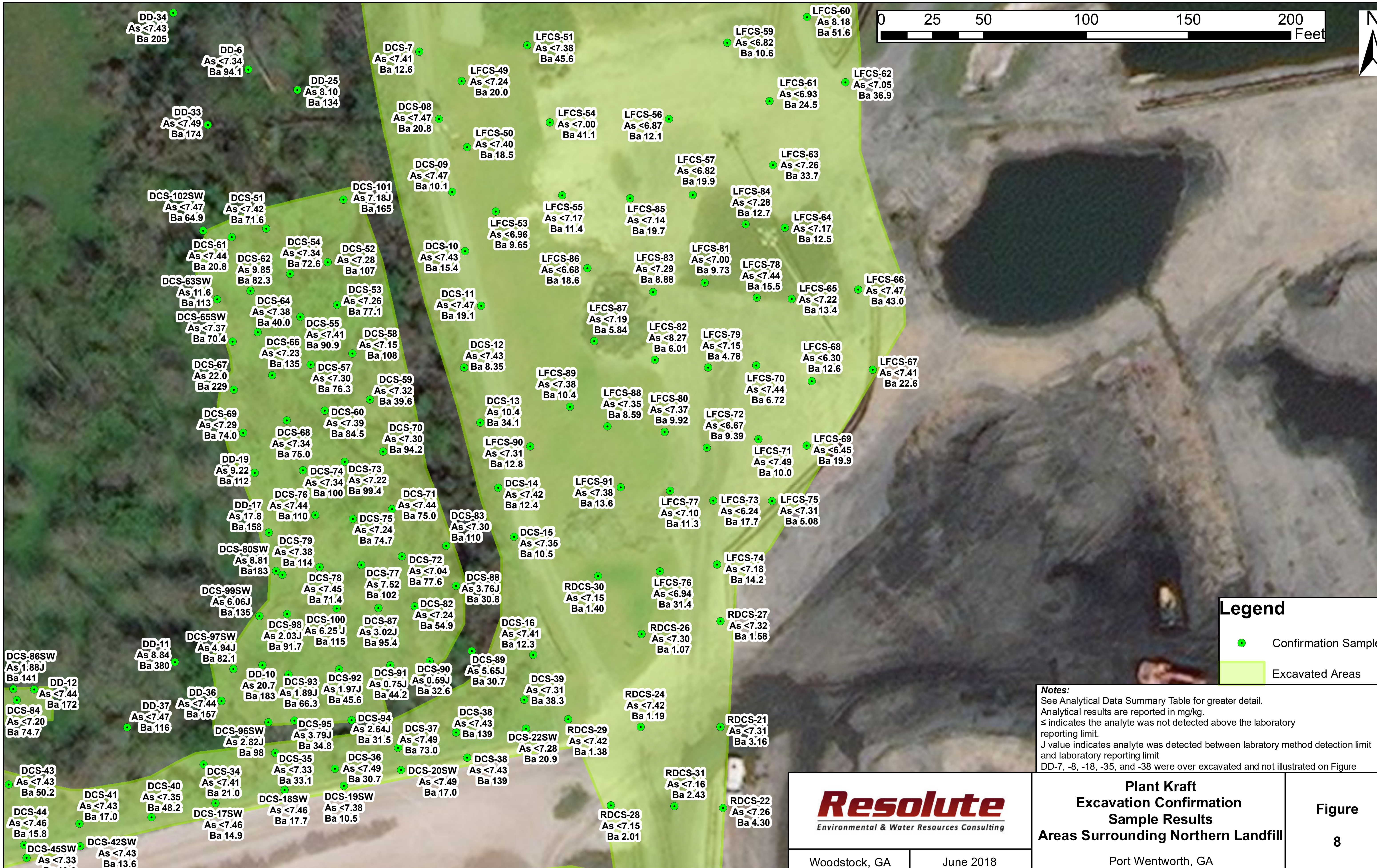
Port Wentworth, GA

Figure
6



Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.

Resolute Environmental & Water Resources Consulting	Plant Kraft Excavation Confirmation Sample Results Northern Inert Landfill and Revetment Port Wentworth, GA	Figure 7
Woodstock, GA / June 2018		



Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
J value indicates analyte was detected between labratory method detection limit and laboratory reporting limit
DD-7, -8, -18, -35, and -38 were over excavated and not illustrated on Figure

Resolute Environmental & Water Resources Consulting		**Plant Kraft Excavation Confirmation Sample Results Areas Surrounding Northern Landfill** Port Wentworth, GA	**Figure 8**
Woodstock, GA	June 2018		

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.

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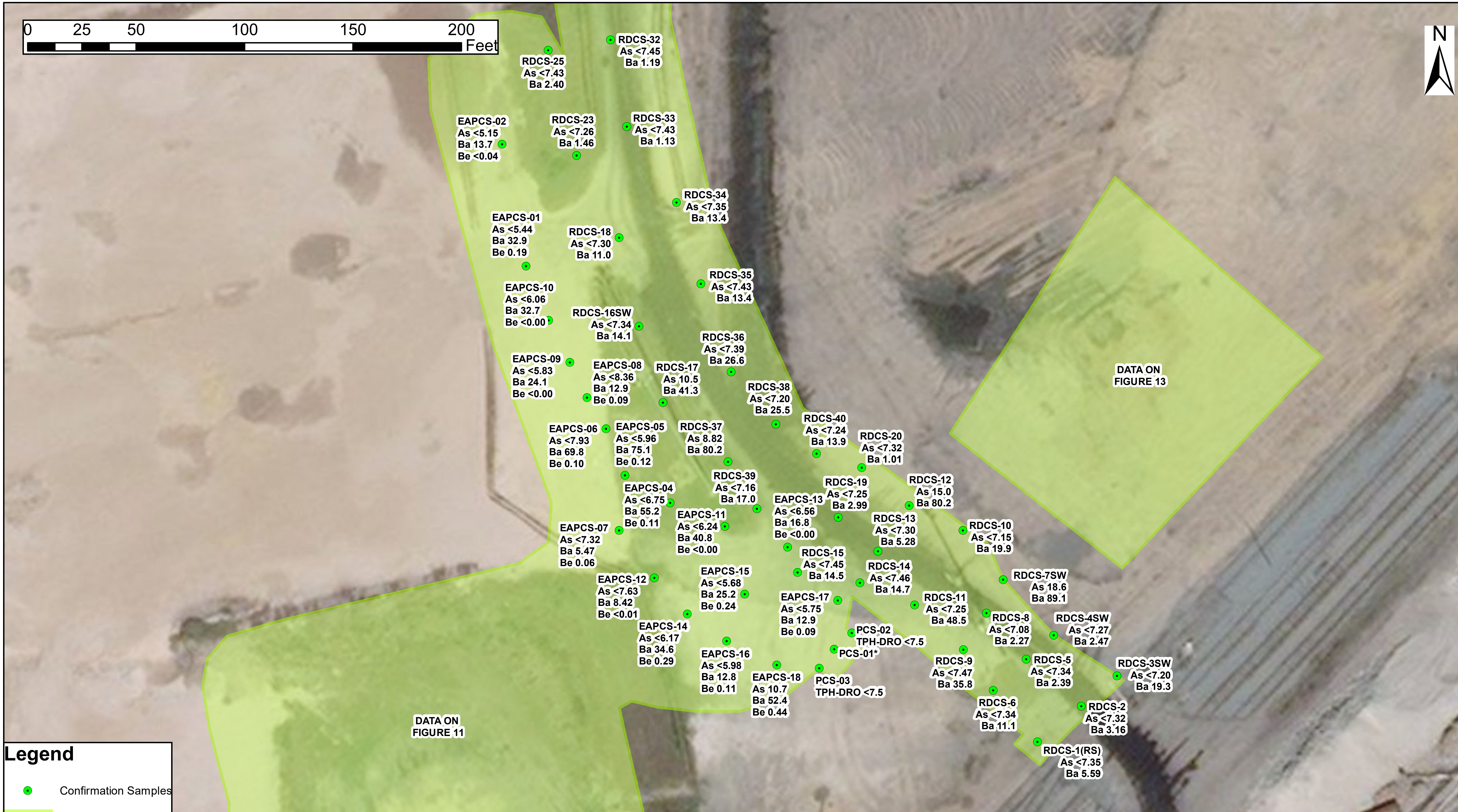
Woodstock, GA	June 2018	Port Wentworth, GA

Plant Kraft
Excavation Confirmation Sample Results
Drainage Ditch Areas

Figure 9



Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
*Soil over excavated around sample location in a 15 ft by 15 ft to groundwater

DATA ON
FIGURE 11

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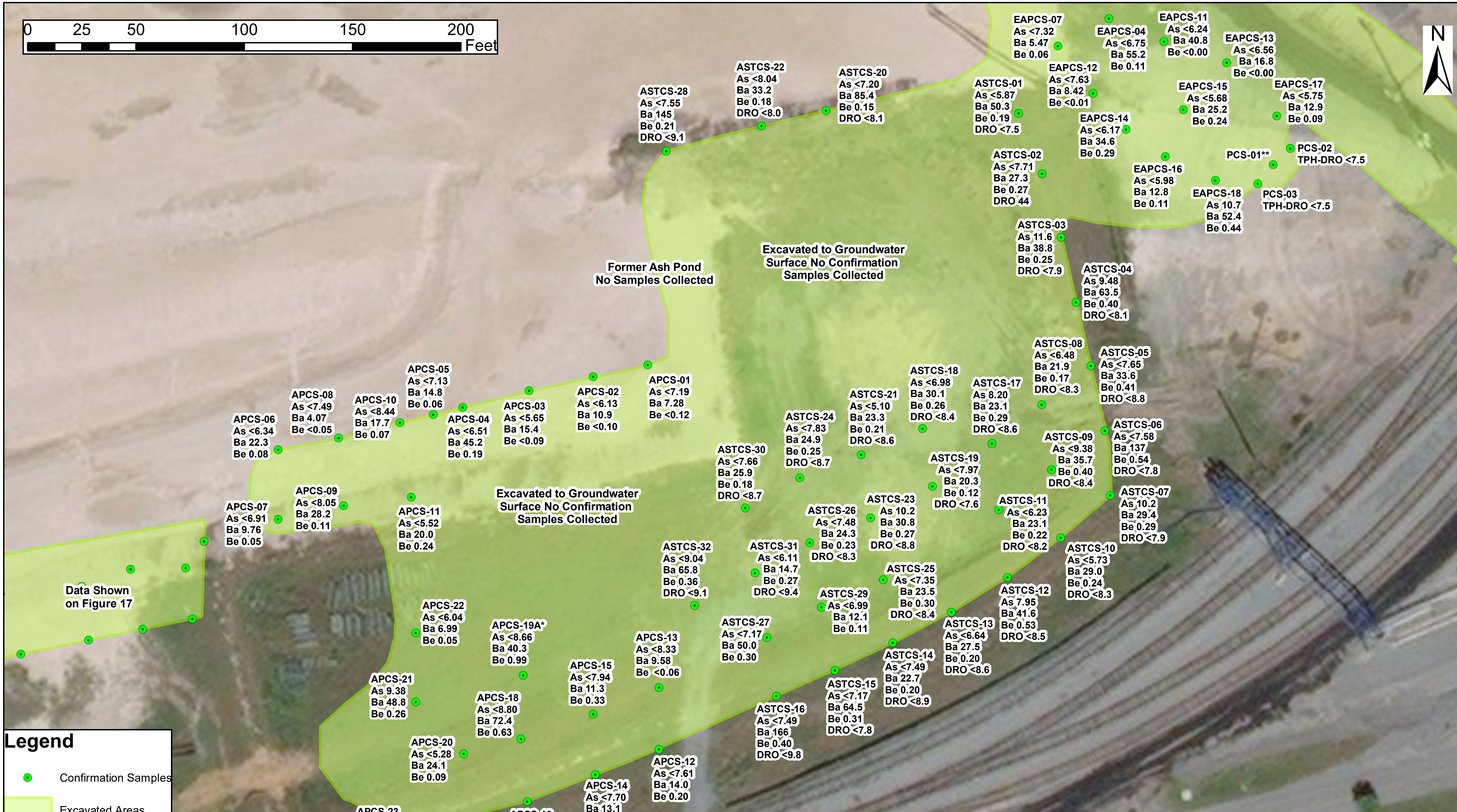
Woodstock, GA | June 2018

Plant Kraft
Excavation Confirmation
Sample Results
Landfill Road

Port Wentworth, GA

Figure

10



Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
* Soil over excavated around sample location in a 15 ft by 15 ft area
**Soil over excavated around sample location in a 15 ft by 15 ft to groundwater

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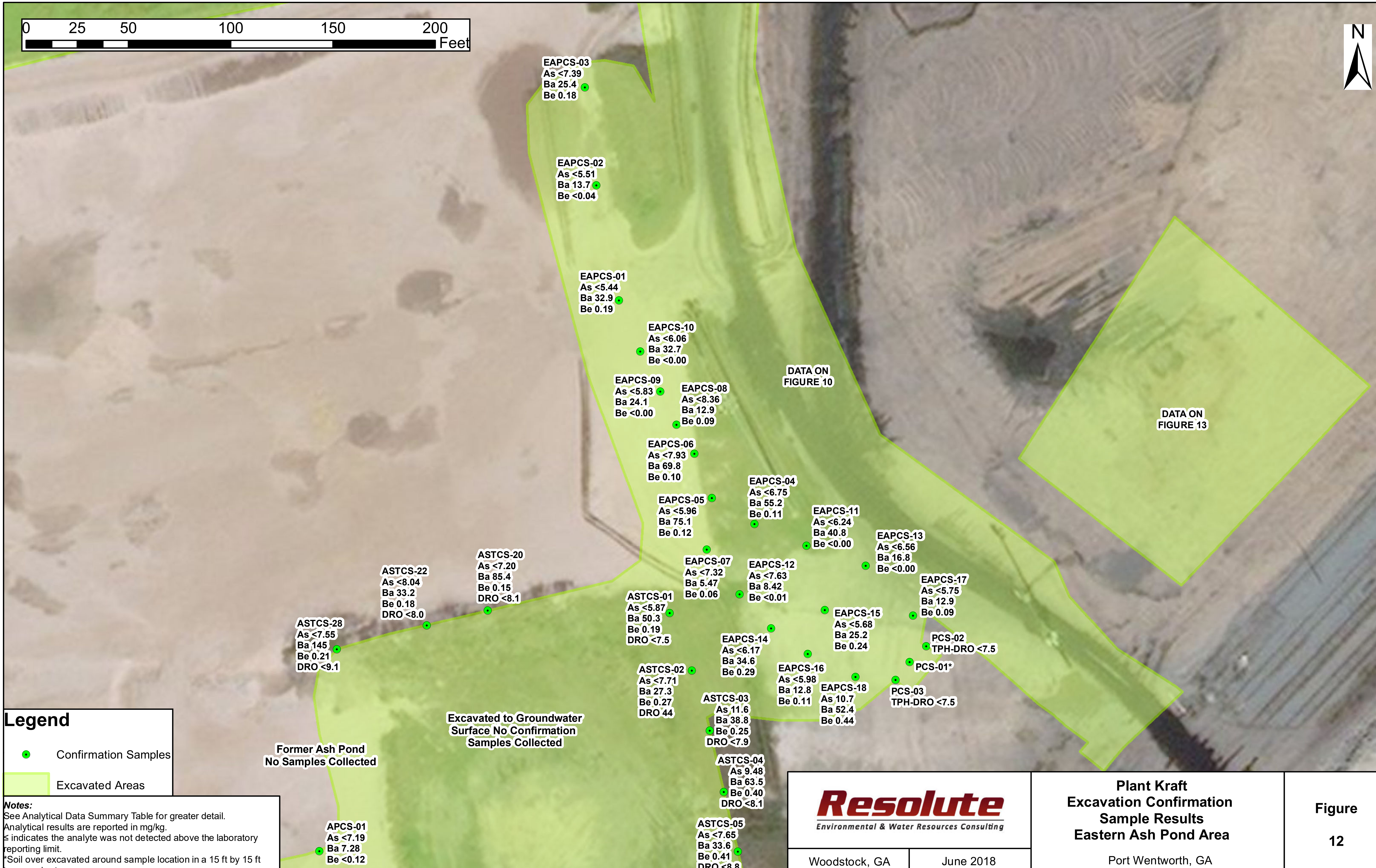
Plant Kraft
Excavation Confirmation
Sample Results
AST and Southern Ash Pond Area
Port Wentworth, GA

Figure
11



Legend

- Confirmation Samples
- Excavated Areas

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
*Soil over excavated around sample location in a 15 ft by 15 ft to groundwater

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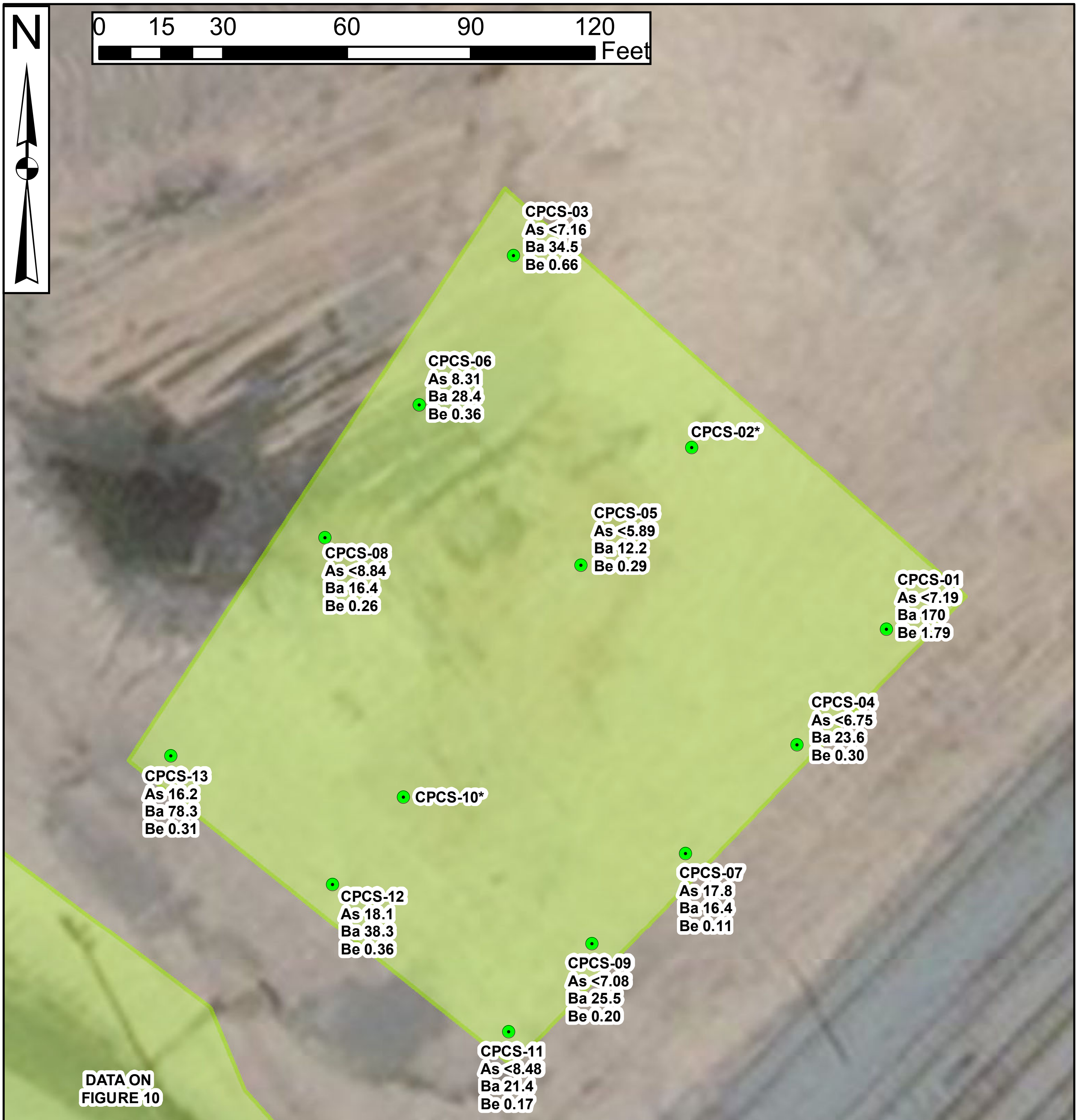
Plant Kraft Excavation Confirmation Sample Results Eastern Ash Pond Area

Port Wentworth, GA

Figure 12



Notes:
*15 ft by 15 ft area excavated to groundwater.
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.

Legend

- Confirmation Samples
- Excavated Areas

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Woodstock, GA | June 2018

Plant Kraft
Excavation Confirmation Sample Results
Coal Pile Area
Port Wentworth, GA

Figure
13

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.

Legend

Confirmation Samples

Excavated Areas

Resolute
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Woodstock, GA | June 2018

Plant Kraft
Excavation Confirmation Sample Results
Transmission Line (Sandblasting Area)
Port Wentworth, GA

Figure

14

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
* Soil over excavated around sample location in a 15 ft by 15 ft area

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Woodstock, GA | June 2018

Plant Kraft
Excavation Confirmation Sample Results
Railroad Area

Port Wentworth, GA

Figure 15

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
* Soil over excavated around sample location in a 15 ft by 15 ft area

Resolute
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Woodstock, GA | June 2018

Plant Kraft
Excavation Confirmation Sample Results
Substation Road

Port Wentworth, GA

Figure

16

Notes:
See Analytical Data Summary Table for greater detail.
Analytical results are reported in mg/kg.
≤ indicates the analyte was not detected above the laboratory reporting limit.
J value indicates analyte was detected between labratory method detection limit and laboratory reporting limit.

Resolute Environmental & Water Resources Consulting	Plant Kraft Excavation Confirmation Sample Results Parking Lot Area	Figure 17
Woodstock, GA — June 2018	Port Wentworth, GA	

Parameter	RRS			MW-15											
	Type 1	Type 3	Type 4	1/19/12	7/9/12	1/17/13	7/18/13	1/13/14	7/8/14	1/14/15	7/17/15	1/19/16	8/10/16	1/31/17	4/6/17
Benzo(a)anthracene	0.1	0.1	1.3	4.8	1.4	8.9	0.75	1.5	0.69	0.37	0.84	0.5	4.1	0.44	A
Benzo(a)pyrene	0.2	0.2	2.86	<2.0	0.38	3	<0.20	0.74	0.21	< 0.20	0.28	<0.20	1.2	<0.20	
Benzo(b)fluoranthene	0.2	0.2	28.6	3.9	0.44	3.8	<0.20	0.76	0.25	0.21	0.34	0.2	1.9	<0.20	
Indeno(1,2,3-cd)pyrene	0.4	0.4	28.6	<2.0	0.23	0.82	<0.20	0.28	<0.20	< 0.20	<0.20	<0.20	0.37	<0.20	

Parameter	RRS			MW-15D									MW-15D(R)	
	Type 1	Type 3	Type 4	7/9/12	1/17/13	7/18/13	1/13/14	7/8/14	1/14/15	7/17/15	1/19/16	8/10/16	1/31/17	8/10/17	2/13/18
Benzo(a)anthracene	0.1	0.1	1.3	0.68	0.83	2.8/ 2.8	0.69/ 0.77	0.54/ 1.1	0.17/ 0.22	0.60/ 0.57	1.4/ 4.3	2.5/ 1.4	1.2/ 0.45	0.23/ 0.22	0.52
Benzo(a)pyrene	0.2	0.2	2.86	<0.2	<0.2	1.4/ 1.5	<0.20/ <0.20	<0.20/ 0.28	< 0.20/ < 0.20	<0.20/ <0.20	0.42/ 1.5	0.61/ 0.31	0.24/ <0.20	<0.20/ <0.20	<0.20
Benzo(b)fluoranthene	0.2	0.2	28.6	<0.3	<0.3	<1.0/ <1.0	<0.30/ <0.30	<0.20/ 0.35	< 0.20/ <0.20	<0.20/ <0.20	0.62/ 2	1.0/ 0.47	0.43/ <0.20	<0.20/ <0.20	0.22
Indeno(1,2,3-cd)pyrene	0.4	0.4	28.6	<0.2	<0.2	1.3/ 1.2	<0.20/ <0.20	<0.20/ <0.20	< 0.20/ <0.20	<0.20/ <0.20	<0.20/ 0.46	<0.20/ <0.20	<0.20/ <0.20	<0.20/ <0.20	0.052

Legend

- Abandoned Monitoring Well
- Monitoring Well

Notes:
Analytical Results shown in micrograms per liter (µg/L).
Samples analyzed using Method EPA 8270 by SIM.
A indicates abandonment without replacement.

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Woodstock, GA | June 2018

Plant Kraft Northern Area Analytical Results February 2018

Port Wentworth, GA

Figure 18

Legend

Monitoring Well

KMW-01
B 1.06 Analytical Data

Notes:
Analytical data colored blue exceeds comparison standard. See Analytical Data Summary Table for greater detail.
Radium analytical results are reported in pCi/L.
All other analytical results are reported in mg/L.
≤ indicates the analyte was not detected above the laboratory reporting limit.
J indicates the analyte was detected between the laboratory method detection limit and laboratory reporting limit.

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Plant Kraft
Groundwater Analytical Data
Exceeding Comparsion Standards
January 30-31, 2017

Port Wentworth, GA

Figure

19

Legend

Monitoring Well

KMW-01
Ra 12.9 Analytical Data

Notes:
Analytical data colored blue exceeds EPD HSRA Type 3 RRS.
Arsenic analytical results are reported in mg/L.
Radium analytical results are reported in pCi/L.
J indicates the analyte was detected between the laboratory method detection limit and laboratory reporting limit.
U indicates the substance was detected below the laboratory minimum detection concentration and the precision of the laboratory instruments could not produce as reliable of a value.
NA indicates not analyzed

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Plant Kraft
Groundwater Analytical Data
Exceeding Comparison Standards
July & August 2017

Port Wentworth, GA

Figure

20

Notes:
Analytical data colored blue exceeds groundwater MCL.
Arsenic analytical results are reported in mg/L.
Radium analytical results are reported in pCi/L.
J indicates the analyte was detected between the laboratory method detection limit and laboratory reporting limit.
U indicates the substance was detected below the laboratory minimum detection concentration and the precision of the laboratory instruments could not produce as reliable of a value.
NA indicates not analyzed
* Indicates data collected in May 2018

Resolute Environmental & Water Resources Consulting		Plant Kraft Groundwater Analytical Data Exceeding Comparison Standards February 2018 Port Wentworth, GA	Figure 21
Woodstock, GA	June 2018		

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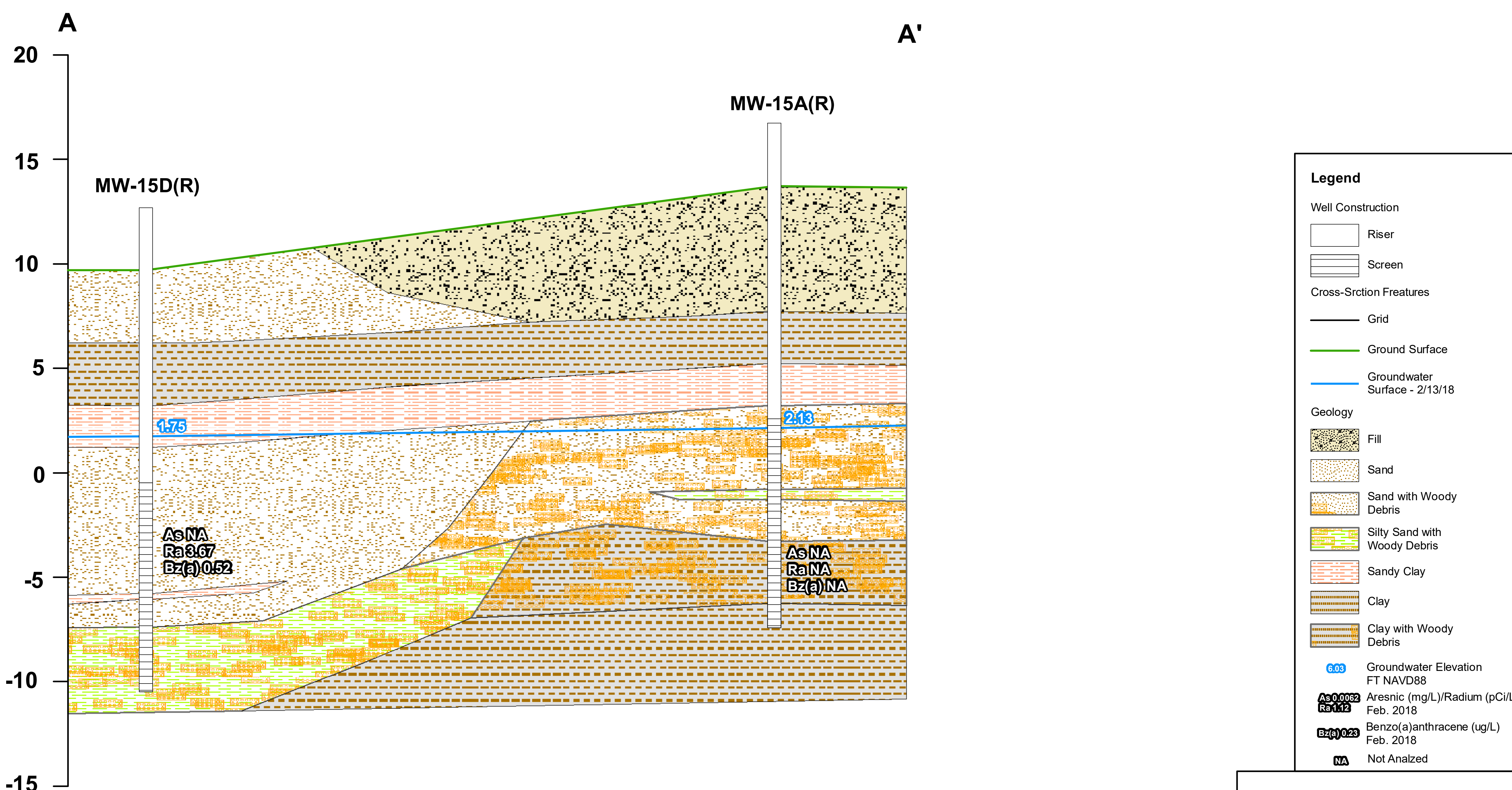
Woodstock, GA | June 2018

Plant Kraft
Cross-Section Profile Map
Port Wentworth, GA

Figure 22



Horizontal Scale = 1 in:15 ft
Vertical Scale = 1 in:5 ft

Plant Kraft
Cross-Section A - A'
Port Wentworth, GA

Figure

23

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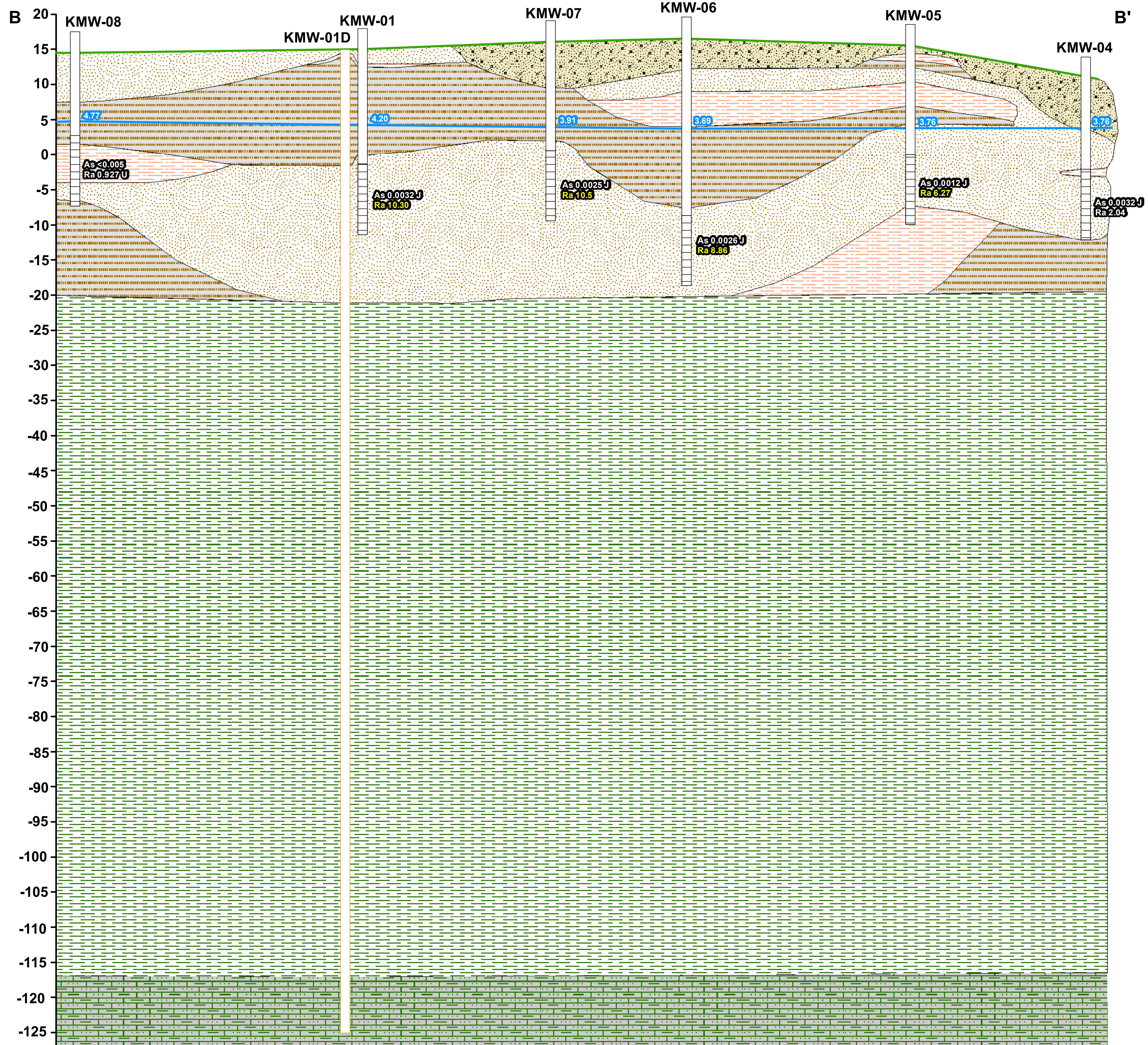
Woodstock, GA | June 2018



Legend

Well Construction

- Boring
- Riser
- Screen

Cross-Srction Features

- Grid
- Ground Surface
- Groundwater Surface - Feb. 2018

Geology

- Fill
- Sand
- Sandy Clay
- Clay
- Hawthorn
- Hawthorn Dolomite Base

- 6.03 Groundwater Elevation FT NAVD88
- As 0.0062 / Ra 1.12 Aresnic (mg/L)/Radium (pCi/L) Feb. 2018
- Result from January 2017
- Ra 7.09 Exceeds Groundwater Standard
- U Below Lab Minimum Detection Concentration
- J Between Lab Method Detection Limit and Lab Reporting Limit

Horizontal Scale = 1 in:200 ft
Vertical Scale = 1 in:15 ft

Plant Kraft
Cross-Section B - B'
Port Wentworth, GA

Figure

24

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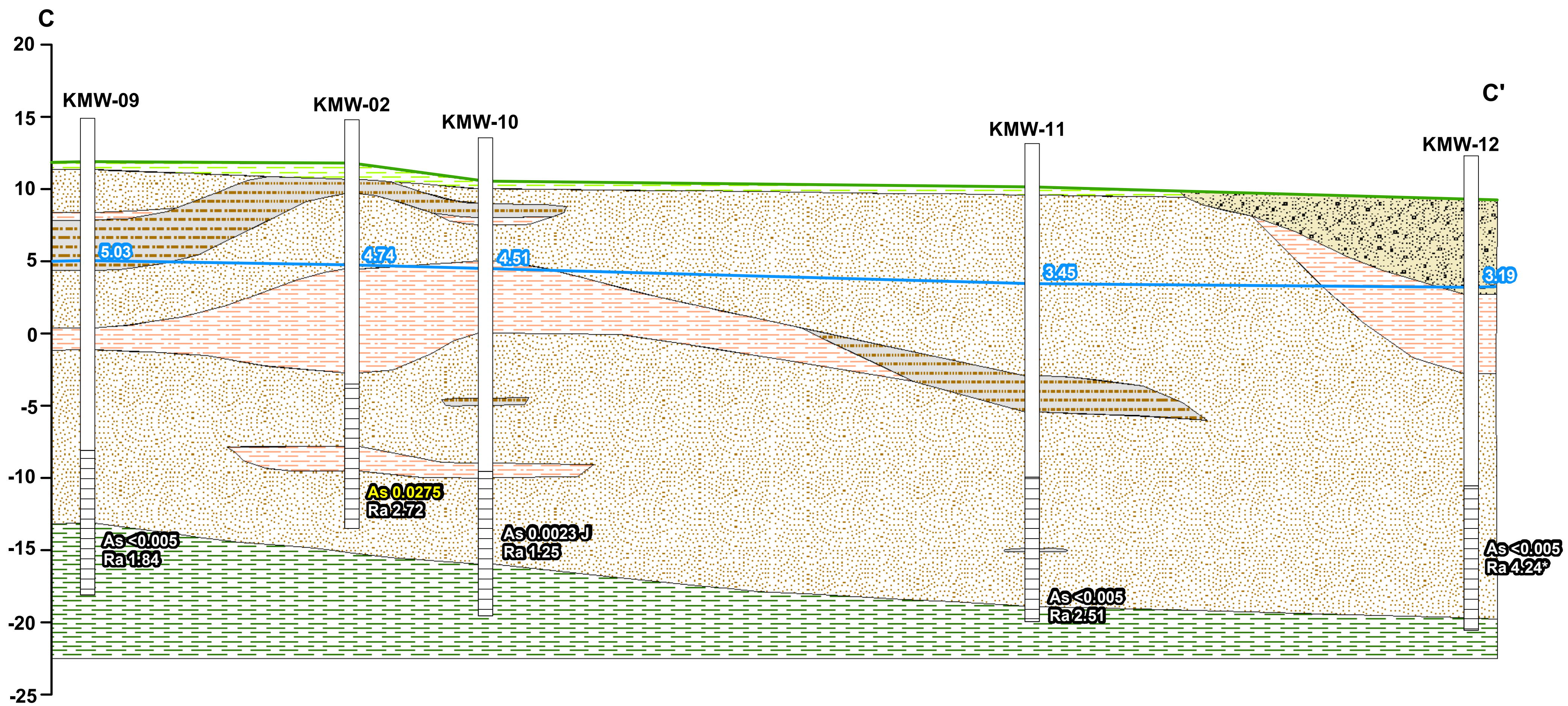
Woodstock, GA | June 2018



Legend

Well Construction

- Riser
- Screen

Cross-Srction Features

- Grid
- Ground Surface
- Groundwater Surface - 2/13/18

Geology

- Fill
- Sand
- Sandy Clay
- Clay
- ML
- Hawthorn

- 6.03 Groundwater Elevation FT NAVD88
- As 0.0062 Ra 1.12 Aresnic (mg/L)/Radium (pCi/L) February 2018
- * Radium (pCi/L) from May 2018
- NA Not Analzed
- As 0.0310 Exceeds Groundwater Standard
- J Between Lab Method Detection Limit and Lab Reporting Limit

Horizontal Scale = 1 in:120 ft
Vertical Scale = 1 in:10 ft

Plant Kraft
Cross-Section C - C'
Port Wentworth, GA

Figure 25

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Woodstock, GA | June 2018


N
0 125 250 500 750 1,000
Feet
MW-15
2.47*
MW-15D
1.64
MW-15C
1.09
MW-15A
1.43
MW-15E
2.42*
KMW-05
3.90
KMW-06
3.63
KMW-07
3.72
KMW-04
4.44
KMW-01
3.84
KMW-02
3.85
MW-34
NM
MW-33
3.07
MW-37
3.99
MW-35
4.28
MW-38
3.41*
MW-39A
3.17
Legend
Monitoring Well
Groundwater Flow Direction
Potentiometric Surface Contour
KMW-01
5.53
Potentiometric Surface Elevation
Notes:
* MW-15, MW-15E, and MW-38 screened relatively shallow in subsurface. Potentiometric surface elevations therefore not used in contouring.
All potentiometric surface elevations shown in ft NAVD 88.
Resolute
Environmental & Water Resources Consulting
Woodstock, GA
June 2018
Plant Kraft
Potentiometric Surface Map
August 10, 2016
Port Wentworth, GA
Figure
26

Legend

- Monitoring Well
- Groundwater Flow Direction
- Inferred Surface Countour
- Potentiometric Surface Contour
- KMW-01 5.53 Potentiometric Surface Elevation

Notes:
* MW-15, MW-15E, and MW-38 screened relatively shallow in subsurface. Potentiometric surface elevations therefore not used in contouring.
All potentiometric surface elevations shown in ft NAVD 88.

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Woodstock, GA | June 2018

Plant Kraft
Potentiometric Surface Map
September 01, 2016
Port Wentworth, GA

Figure
27

Notes:
* MW-15, MW-15E, and MW-38 screened relatively shallow in subsurface. Potentiometric surface elevations therefore not used in contouring.
All potentiometric surface elevations shown in ft NAVD 88.

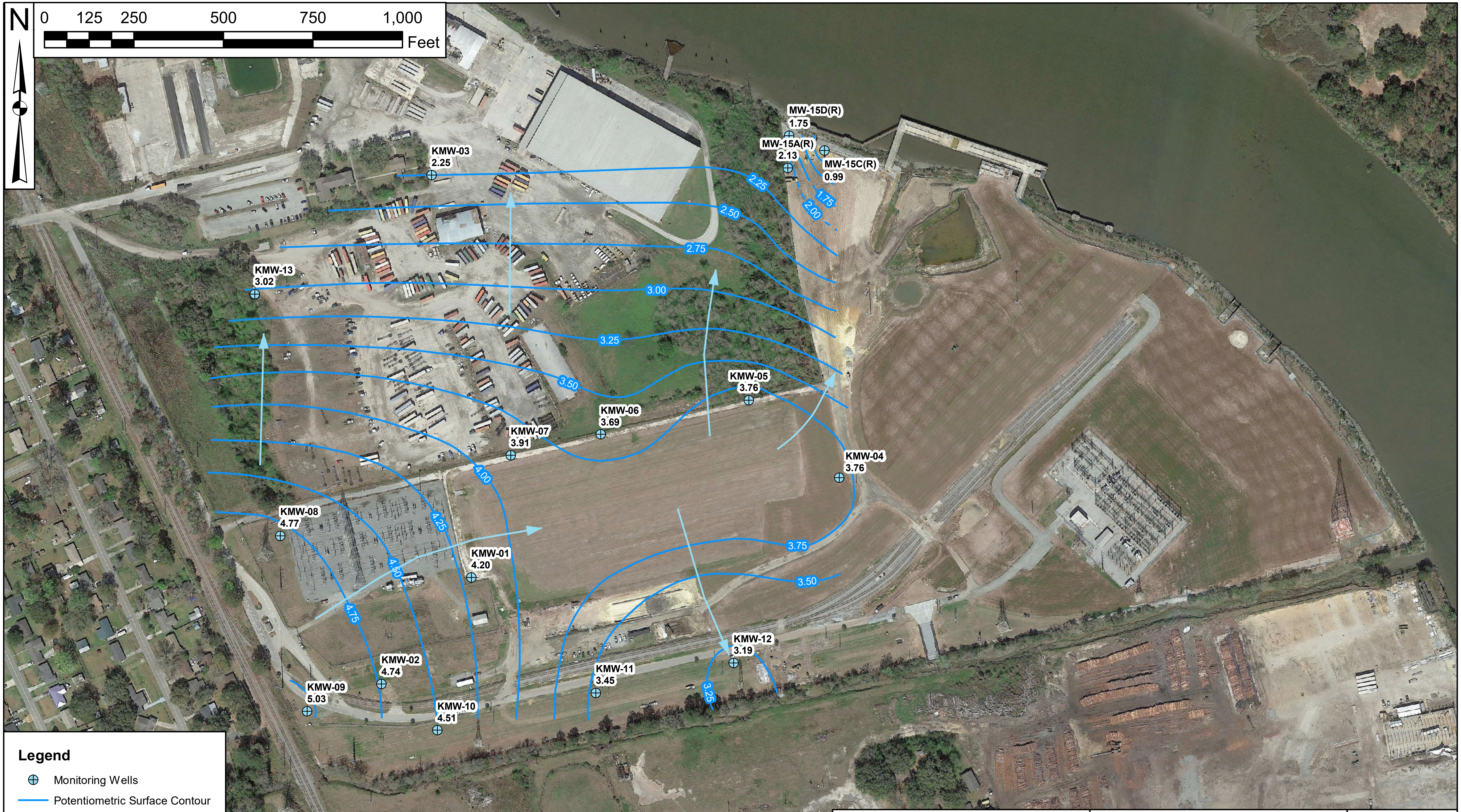
Resolute Environmental & Water Resources Consulting	Plant Kraft Potentiometric Surface Map January 30, 2017	Figure
Woodstock, GA / June 2018	Port Wentworth, GA	28

Legend

- Monitoring Wells
- Potentiometric Surface Contour
- Inferred Contour
- KMW-01 6.44 Potentiometric Surface Elevation
- Groundwater Flow Direction

Notes:
All potentiometric surface elevations shown in ft NAVD 88.

Resolute Environmental & Water Resources Consulting		**Plant Kraft Potentiometric Surface Map August 17, 2017** Port Wentworth, GA	**Figure** **29**
Woodstock, GA	June 2018		



Notes:
All potentiometric surface elevations shown in ft NAVD 88.
Imagery from Google Earth dated March 18, 2018

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Woodstock, GA | June 2018

Plant Kraft
Potentiometric Surface Map
February 13, 2018
Port Wentworth, GA

Figure

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Woodstock, GA	June 2018	Plant Kraft Boundaries, Tax Parcels, and Division Tracts Port Wentworth, GA	Figure 31