Interim Remedial Investigation Data Summary Report
Westinghouse Columbia Fuel Fabrication Facility

Consent Agreement #19-02-HW
5801 Bluff Road
Hopkins, South Carolina 29061

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Quality information

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List of Acronyms

AECOM	AECOM Technical Services, Inc.
AOC	Area of Concern
BLS	below land surface
CA	Consent Agreement
CD	compact disk
CFFF	Columbia Fuel Fabrication Facility
COPC	constituent(s) of potential concern
CSM	Conceptual Site Model
CVOCs	chlorinated volatile organic compounds
DCE	1,1-Dicholorethene
DHEC	South Carolina Department of Health and Environmental Control
DNR	South Carolina Department of Natural Resources
ft/day	feet per day
IUSL	Industrial Use Screening Level
MCL	maximum contaminant level
MEK	methyl ethyl ketone
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mrem/yr	millirem per year
NCRP	National Council on Radiation Protection and Measurements
NIH	National Institute of Health
NPDES	National Pollution Discharge Elimination System
NRC	Nuclear Regulatory Commission
PCE	tetrachloroethene
pCi/g	picocuries per gram
pCi/L	picocuries per liter
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
RI	remedial investigation
RUSL	Residential Use Screening Level
SC	South Carolina
SOF	Sum of Fractions
TAL	target analyte list
Tc-99	Technetium-99
TCE	trichloroethene
TCL	target compound list
U	uranium
µg/L	micrograms per liter
Westinghouse	Westinghouse Electric Company, LLC
WWTP	wastewater treatment plant
yr	year

Executive Summary

The Westinghouse Electric Company, LLC (Westinghouse) Columbia Fuel Fabrication Facility (CFFF) includes approximately 1,151 acres, with the developed area encompassing approximately 75 acres. The Congaree River is approximately 3 miles from the plant. CFFF manufactures fuel assemblies and components for the commercial nuclear power industry. Prior environmental assessment activities identified the following constituents of potential concern (COPCs) at the site: chlorinated volatile organic compounds (CVOCs), nitrate, fluoride, technetium-99 (Tc-99) and uranium (U). The data generated by previous assessment activities and the additional assessment data presented in the report show that no COPCs have migrated off-site, and the extent of existing COPCs are limited and generally well defined, posing no potentially significant threat to plant workers, the general public or the environment.

The South Carolina Department of Health and Environmental Control (DHEC) and CFFF entered into a Consent Agreement (CA) to comprehensively assess potential environmental impacts from current and historical operations, including additional assessment of known impacts. Phase I of the comprehensive Remedial Investigation (RI) has been conducted as part of the CA to: 1) further assess the extent of previously identified groundwater impacts; 2) assess areas of the plant operations that had not been previously evaluated; 3) assess potential surface water impacts; 4) assess potential sediment impacts; 5) assess potential sources of Tc-99 soil impacts; 6) assess the depths of surface water bodies; and 7) evaluate private water supply wells. The RI field work included the following additional assessment activities:

- Survey of private water wells near the facility and analysis of groundwater samples from four private wells;
- Installation of 19 lithologic borings;
- Submission of an *Additional Floodplain Assessment Plan* in August 2019 and a *Sediment Transect Sampling Plan* in October 2019;
- Analysis of 21 groundwater samples collected from temporary groundwater screening locations;
- Installation, development, and surveying of 29 permanent monitoring wells;
- Collection and analysis of 89 groundwater samples (including the 29 new wells) from the monitoring well network;
- Collection and analysis of 12 surface water samples;
- Collection and analysis of 63 sediment samples;
- Collection and analysis of 56 soil samples;
- Bathymetric surveys of the Gator Pond, Upper Sunset Lake and Lower Sunset Lake;
- Installation of four surface water staff gauges; and
- Slug tests in four newly installed floodplain wells.

The following conclusions can be drawn from this newly acquired data:

- Groundwater, surface water and sediment data indicate that there are no COPCs migrating off the site.
- No source of Tc-99 was identified in soil.
- Analysis of groundwater samples from four private water supply wells identified no COPCs related to CFFF manufacturing operations. The closest private water supply well is over 1 mile downgradient of the known areas impacted by of COPCs. The private water supply well survey findings reinforce that there is no potential for COPCs from CFFF to impact private water supply wells.

- The documented impact poses no potentially significant threat to plant workers, the general public or the environment.
- In general, the vertical and horizontal extent of COPCs has been further defined and shows that the groundwater plume sizes and locations are similar to previously identified areas of impact. Analysis of groundwater samples collected from the newly installed monitoring network around the primary manufacturing area identified one additional well with U above the MCL. The impact of U is well defined and limited to a small area immediately adjacent to the plant building.
- Conditions within the floodplain are conducive to natural degradation and attenuation of the CVOC plume which will limit the plume's size.
- Sediment impacted by COPCs is limited and well defined horizontally.
- An improved understanding of site geology and hydrogeology has been developed, particularly with respect to the floodplain and how shallow groundwater interacts with surface water and sediment. The Conceptual Site Model (CSM) has been enhanced by the newly acquired data making it a more effective decision-making tool.

Limited data gaps remain in specific areas and environmental media. CFFF recommends the following:

- Conduct additional assessment as necessary to fill the identified data gaps. A Phase II RI Work Plan documenting the scope of work for Phase II assessment will be submitted to DHEC for review and input.
- Complete the additional Tc-99 source investigation work plan approved by DHEC on February 13, 2020, to further evaluate potential Tc-99 source areas since none have yet been identified.

1. Introduction

Westinghouse Electric Company, LLC (Westinghouse) Columbia Fuel Fabrication Facility (CFFF) is located at 5801 Bluff Road (site or property) in Hopkins, South Carolina (SC; **Figure 1**). The site includes approximately 1,151 acres, with the developed area encompassing approximately 75 acres, thereby creating substantial buffers from downgradient adjoining properties. CFFF manufactures fuel assemblies and components for the commercial nuclear power industry. Site features and monitoring well locations are displayed on **Figure 2**.

The South Carolina Department of Health and Environmental Control (DHEC) and CFFF entered into a Consent Agreement (CA) 19-02-HW on February 26, 2019, to comprehensively assess all potential environmental impacts from current and historical operations, including additional assessment of known impacts. The CA requires further assessment and potential remediation of known constituents of potential concern (COPC) and assessment of additional areas where releases may have occurred. CFFF submitted a *Remedial Investigation (RI) Work Plan* dated April 2019 to DHEC (CFFF, 2019A). On May 24, 2019, DHEC provided comments to the April 2019 RI Work Plan. CFFF submitted a *Final Remedial Investigation Work Plan* to DHEC in June 2019 (CFFF, 2019B). DHEC approved the *Final RI Work Plan* on June 19, 2019.

Work outlined in the revised *Final RI Work Plan* represents the first step in an iterative process to fulfill the requirements of the CA. Data presented in this report includes the results of assessment activities conducted from June 2019 through January 2020.

Activities performed during this time period include:

- Completion of 19 lithologic borings in the floodplain to acquire data necessary to better characterize the geology of the floodplain sediments and their relationship to the lithologic units underling the developed portion of the site;
- Submission of an *Additional Floodplain Assessment Plan* in August 2019 (CFFF, 2019C) and a *Sediment Transect Sampling Plan* in October 2019 (CFFF, 2019D) to better understand the connectivity and potential migration of COPCs from the sands of the surficial aquifer to sands of the floodplain aquifer and to further assess COPC impact in initial, limited sediment data collected from Upper and Lower Sunset Lakes;
- Analysis of 21 groundwater samples collected from discrete screened intervals within temporary wells installed in seven lithologic borings to better understand COPC transport in the floodplain aquifer;
- Installation, development, and surveying of 29 permanent monitoring wells (W-69 through W-97) to further delineate the extent of groundwater COPC impact;
- Collection and analysis of groundwater samples from 89 wells (including the 29 new wells) in the monitoring well network to provide a contemporaneous, sitewide dataset to evaluate the extent of groundwater impact;
- Collection and analysis of four groundwater samples from private water supply wells located generally downgradient from the site to assess whether documented COPC impact within groundwater at the site had impacted these water supply wells;
- Collection and analysis of 12 surface water samples in various surface water bodies to assess potential impact to surface water by COPC impacted groundwater discharges;
- Collection and analysis of 59 sediment samples to assess sediment in various surface water bodies for potential COPC impact;
- Collection and analysis of four sludge samples to assess sediment in two on-site WWTP lagoons for potential COPC impact;
- Collection and analysis of 56 soil samples to assess potential Technetium-99 (Tc-99) source areas;
- Installation of four staff gauges in various surface water bodies to measure surface water elevations so that the relationship between groundwater and surface water can be better understood;
- Bathymetric survey of the Gator Pond, Upper Sunset Lake and Lower Sunset Lake to assess their total depths; and

- Slug tests in the four newly installed floodplain wells (W-94 through W-97) to assess the hydraulic conductivity in the floodplain aquifer.

This *Interim Remedial Investigation Data Summary Report* is intended to document the RI assessment activities to date. An RI Report will be submitted after future phases of the RI work are completed and will be a compendium of assessment activities.

2. General Site Geology and Hydrogeology

The developed portion of the site occupies about 75 acres of the 1,151 acre site and lies on a river terrace deposit of the Congaree River. Site soils are generally characterized by several feet of surficial silt or clay above coarsening downward sands. In some areas of the developed portion of the site, there are silt or clay lenses interspersed within the sand layer. Below the sand lies a dense clay layer (Black Mingo Aquifer confining unit) that extends under the entire site. Based upon data collected during this and previous assessments, the Black Mingo Aquifer confining clay layer ranges in thickness from 39 feet (W-3A and W-71) to 89 feet (W-50).

As documented in the June 2019 *Final RI Work Plan* (CFFF, 2019B), the unconfined, water table aquifer beneath the developed portion of the site is defined as the “surficial aquifer” and has been divided into two zones based upon proximity to the confining clay. The “upper surficial aquifer” is the shallower portion of the surficial aquifer, and the “lower surficial aquifer” is the deeper portion of the surficial aquifer on or within five feet of the Black Mingo confining clay.

The Congaree River floodplain occupies the southern portion of the site. An approximately 30-foot bluff separates the developed portion of the site from the Congaree River floodplain. The depositional environment of the floodplain sediment is similar to the sediment deposits of the developed portion of the site, consistent with both sets of deposits having been created by the Congaree River. Like the developed portion of the site, several feet of surficial silt overlie coarsening downward sands with alternating silt and sands above the Black Mingo confining clay. Shallow groundwater in the floodplain is designated as the floodplain aquifer.

Below the Black Mingo confining clay is the confined Black Mingo Aquifer. According to information on the South Carolina Department of Natural Resources (DNR) Geologic Survey Fort Jackson South Geologic Quadrangle map, sediment within the Black Mingo aquifer consists of poorly sorted, angular to rounded, cohesive matrix of clayey, silty, micaceous, fine- to very coarse-grained, smoky and white quartz sand (DNR, 2011).

Groundwater flow within the unconfined surficial aquifer is generally to the southwest with components of flow to the west and south. Groundwater flow within the Black Mingo Aquifer is generally to the southwest. Potentiometric maps of the upper surficial aquifer, lower surficial aquifer and Black Mingo Aquifer are included as **Figures 3 through Figure 5**, respectively. **Table 1** includes the water level elevations measured in October 2019 that were used to create the potentiometric maps.

3. Groundwater Data Summary

The groundwater monitoring well network at the site (**Figure 2**) currently consists of 90 permanent groundwater monitoring wells, including the 29 newly installed wells. Four of the monitoring wells (W-3A, W-49, W-50, and W-71) are screened within the Black Mingo Aquifer while the remaining monitoring wells are screened within the upper surficial, lower surficial, or floodplain aquifers. With the exception of the floodplain vertical groundwater profiling in temporary wells described in **Section 3.1**, groundwater samples during this phase of work were collected in October 2019 from the entire monitoring well network. Based upon previous assessments, chlorinated volatile organic compounds (CVOCs), nitrate, fluoride, Tc-99 and uranium (U) were identified as COPCs at CFFF. Groundwater samples were analyzed for the following list of constituents to assess if additional COPCs had impacted groundwater:

- Target compound list (TCL) VOCs by EPA Method 8260B;
- TCL SVOCs by EPA Method 8270D;
- Target analyte list (TAL) Metals by EPA Method 6010D/6020B;
- nitrates via EPA Method 353.2;
- ammonia via EPA Method 350.1;
- fluoride via EPA Method 9056A;
- isotopic uranium via DOE EML HASL-300 (U-02-RC Modified);
- isotopic uranium via EPA Method 200.8/200.2; and
- technetium 99 via DOE EML HASL-300 (Tc-02-RC Modified).

A summary of the groundwater analytical results from the vertical groundwater profiling is in **Table 2.** A summary of the groundwater analytical results from the October 2019 groundwater sampling campaign (including the private water supply wells) focusing primarily on the COPCs is in **Table 3**. A tabulation of the groundwater analytical results for the entire list of analyzed parameters is included as **Table A1** in **Appendix A**. Laboratory analytical results are included in **Appendix E**. The subsections below discuss the groundwater analytical results by COPC, with the exceptions of **Section 3.1** and **Section 3.7**.

3.1 Floodplain Vertical Groundwater Profiling

Previous assessments focused on areas around the plant and above the bluff; therefore, little was known about the geology within the floodplain. Therefore, 13 lithologic borings (L-1 through L-10 and L-17 through L-19) were installed within the floodplain (**Figure 6**). Borings L-1 through L-10 were installed in June 2019.

Based on an evaluation of the lithologic data and with input from DHEC, an *Additional Floodplain Assessment Plan* was submitted to DHEC on August 2, 2019 (CFFF, 2019C). The purpose of this additional assessment was to better understand the connectivity and potential migration of COPCs from the sands of the surficial aquifer to sands of the floodplain aquifer prior to the installation of permanent monitoring wells. This plan was approved by DHEC on August 7, 2019. Additional assessment within the floodplain included installation of lithologic borings L-17 through L-19 and collection of groundwater samples from various depth intervals in borings L-1, L-8 though L-10, and L-17 through L-19 in August 2019 (**Figure 6**).

Tetrachloroethene (PCE) can naturally breakdown to trichloroethene (TCE), to 1,1-Dichloroethene (DCE) or one of DCE's isomers (trans-1,2-DCE or cis-1,2-DCE), and then to vinyl chloride. After vinyl chloride, it further degrades to harmless daughter products beginning with ethene followed by ethane, and finally to carbon dioxide. This process is known as reductive dechlorination and is critical to evaluating the migration and fate of the CVOCs. As shown by the data discussed below, the dechlorination products of PCE and TCE are found in the floodplain samples indicating that the CVOCs are naturally degrading.

TCE and PCE were only detected in floodplain groundwater from borings L-8 at a depth of 25-30 feet below land surface (BLS) and L-9 at a depth of 10-15 feet BLS (**Table 2**). The groundwater sample from boring L-9 exceeded the PCE maximum contaminant level (MCL) of 5 micrograms per liter (µg /L) at a concentration of 6.5 µg /L. Boring L-9 is located near the bottom of the bluff below monitoring well W-67, which is on top of the bluff near its southern edge and is known to exceed its MCL for PCE and TCE. Boring L-8 is located approximately 525 feet south of boring L-9.

Groundwater from boring L-1 at a depth interval of 28-33 feet BLS contained vinyl chloride (2.7 µg /L) in excess of its maximum contaminant level (MCL) of 2 µg /L. Cis-1,2-DCE, at concentrations below its MCL, was detected in borings L-1 at a depth of 28-33 feet BLS, L-17 at depths of 15-20 and 25-30 feet BLS, L-18 at depth of 24-29 feet BLS and L-19 at depth of 7-12 feet BLS. Trans-1,2-DCE, at a concentration below its MCL, was detected in groundwater from boring L-19 at depth of 7-12 feet BLS. Vinyl chloride, at a concentration below its MCL, was detected in groundwater from boring L-18 at depth of 24-29 feet BLS.

Groundwater from boring L-19 at a depth interval of 7-12 feet BLS contained fluoride above its MCL and at a depth of 21-26 feet BLS below its MCL. Concentrations of nitrate, below its MCL of 10 milligrams per liter (mg/L), were detected in groundwater from borings L-8 at depths of 8-13 feet BLS and 41-46 BLS, L-9 at a depth of 10-15 feet BLS, L-10 at a depths of 9-14 feet BLS, 18-23 feet BLS, and 28-33 BLS, and L-19 at a depths of 7-12 feet BLS and 21-26 BLS.

Based upon the groundwater data (**Table 2**) collected from these borings, CFFF and AECOM Technical Services, Inc. (AECOM) personnel proposed locations and screened intervals for four floodplain wells (W-94 through W-97, **Figure 2**) to DHEC in a September 10, 2019 meeting. DHEC approved installation of these monitoring wells and they were installed in September 2019.

3.2 Chlorinated Volatile Organic Compounds

PCE and TCE are the CVOC COPCs at CFFF. The MCL for PCE and TCE of 5 µg /L was exceeded in groundwater from 18 monitoring wells for PCE and in groundwater from 10 monitoring wells for TCE (**Table 3**). Cis-1,2-DCE was detected in groundwater from 17 monitoring wells at concentrations below its MCL. Groundwater from only one monitoring well (W-95) contained vinyl chloride at 2.9 µg /L which exceeds vinyl chloride's MCL of 2 µg /L.

In general, groundwater exceeding the MCL for TCE is contained within the bounds of groundwater exceeding the MCL for PCE (**Figures 7-10**). Two exceptions occur in wells W-38 and W-76. TCE detected in W-38 and W-76 groundwater within the upper surficial aquifer was 11 µg /L (PCE = 1.8 µg /L,) and 63 µg /L(PCE = <1.0 µg /L), respectively. Both locations are located near the southwestern corner of the plant building.

There are three PCE plumes at CFFF contained within the property. These CVOC plumes are generally referred to as the Western Groundwater Area of Concern (AOC), the main plume, and the eastern plume. These plumes are depicted on **Figures 7 through 10.** The Western Groundwater AOC consists of groundwater near monitoring well W-19B and impacted downgradient groundwater as indicated by CVOC concentrations in groundwater from monitoring wells W-62, W-68, W-94 and W-95. The main plume emanates from the restricted area and migrates towards the floodplain. The eastern plume emanates from developed portions of the site south of the main plant building near the bluff line.

Monitoring wells installed in the floodplain aquifer are shown on the figures as upper and lower floodplain aquifer wells. Although assessment in the floodplain has not indicated the stratification of the COPC plumes seen in the surficial aquifer, these designations are intended to clarify to which zone of the surficial aquifer the COPCs correspond.

3.3 Nitrate

Groundwater from 21 monitoring wells exceeded the MCL of 10 milligrams per liter (mg/L) for nitrate (**Table 3**). In general, the highest concentrations of nitrate in groundwater are in the vicinity of and downgradient of the wastewater treatment plant (WWTP) lagoons. The extent of nitrate in groundwater exceeding its MCL is displayed on **Figure 11** and is generally consistent with previous assessment results.

3.4 Fluoride

Groundwater from 14 monitoring wells exceeded the MCL of 4 µg /L for fluoride (**Table 3**). In general, the highest concentration of fluoride in groundwater is in the vicinity of and downgradient of the WWTP lagoons except for including one from a background location. The highest reported concentration was of Antimony was 8.91 μg /L. CFFF personnel are not aware of historic or current manufacturing activities using antimony that could have impacted groundwater at the site, and this occurrence is believed to represent naturally occurring antimony as indicated by its detection in a background well.

4. Surface Water Data Summary

Surface water samples were collected from 12 locations within the on-site ditches, the Gator Pond, and Mill Creek (Upper and Lower Sunset Lakes). The ditch at one sampling location (SW-15) was dry; therefore, a surface water sample was unable to be collected from this location.

Results of the bathymetric surveys indicate that the depth of the Gator Pond is approximately 8.5 feet deep and the depths of Upper Sunset Lake and Lower Sunset Lake are approximately 5 to 6 feet deep.

Surface water sampling locations are displayed on **Figure 17**. A summary of surface water data focusing primarily on the COPCs is in **Table 4.** A tabulation of the surface water analytical results for the entire list of analyzed parameters is included as **Table A2** in **Appendix A**. Laboratory analytical results are located in **Appendix E**. The subsections below discuss the surface water analytical results by COPC. As discussed in the sections below, the data does not identify potentially significant surface water impact.

4.1 Chlorinated Volatile Organic Compounds

Surface water from sampling locations SW-17 and SW-18 (**Figure 17**) contained PCE above its MCL (5 µg /L) at concentrations of 16 µg /l and 14 µg /L, respectively (**Table 4**). TCE was also detected in surface water sample SW-17 at a concentration of 1.0 µg /L. CVOCs were not detected in any other surface water samples. The ditch in the vicinity of SW-17 is deeply incised, particularly after crossing the road downstream of surface water sample location SW-16. The depth of the ditch west of the road is approximately 12-15 feet BLS. This detection of PCE and TCE confirms that groundwater locally discharges to the ditch, but CVOC concentrations rapidly attenuate.

4.2 Nitrate

Nitrate was detected at concentrations below its MCL (**Table 4**) in surface water samples SW-14, SW-16, SW-17, SW-18 and SW-23 (**Figure 17**). The highest nitrate concentration was detected in surface water sample SW-23 which is located in the Gator Pond. Groundwater in the upper surficial aquifer discharges to this surface water body which in turn recharges groundwater downgradient of the pond, particularly when precipitation causes the water level in the pond to rise, thereby creating a higher hydraulic head than static conditions.

4.3 Fluoride

Fluoride was detected in every surface water sample collected during this phase of work. The highest fluoride concentration (**Table 4**) was detected in surface water sample SW-23 (**Figure 17**) which is located in the Gator Pond. Surface water from the Gator Pond exceeded the MCL for fluoride of 4 µg /L at a concentration of 4.9 µg /L. The remaining fluoride detections were below the MCL.

4.4 Technetium-99

Tc-99 was not detected in any surface water samples collected during this phase of work.

4.5 Uranium

Uranium isotopes U-235 and U-238 were detected (**Table 4**) in most of the surface water samples (**Figure 17**) but at concentrations below the 30 µg/L MCL. To make the comparison, the results of isotopic uranium analysis were summed ("Total Uranium") and compared to the MCL. The results were less than the MCL by more than an order of magnitude.

4.6 Non-Constituents of Potential Concern

There were no detections of non-COPC analytes above their respective MCLs.

4. Surface Water Data Summary

Surface water samples were collected from 12 locations within the on-site ditches, the Gator Pond, and Mill Creek (Upper and Lower Sunset Lakes). The ditch at one sampling location (SW-15) was dry; therefore, a surface water sample was unable to be collected from this location.

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4.6 Non-Constituents of Potential Concern

There were no detections of non-COPC analytes above their respective MCLs.

5. Sediment Data Summary

Sediment samples from the 18 locations included in the *Final RI Work Plan* (CFFF, 2019B) were collected in mid-July 2019. Four of these "sediment samples" were sludge samples from the WWTP Sanitary Lagoon and the East Lagoon. Based on an evaluation of the initial sediment data and with input from DHEC, a *Sediment Transect Sampling Plan* was submitted to DHEC on October 25, 2019 documenting proposed additional sediment sampling locations within Mill Creek including Upper and Lower Sunset Lakes (CFFF, 2019D). DHEC approved the *Sediment Transect Sampling Plan* on November 1, 2019. The purpose of this additional assessment was to obtain more robust data on sediment quality and to ensure no uranium has moved offsite.

The additional 45 sediment samples, not including quality assurance/quality control (QA/QC) samples, were collected from November 20, 2019 through December 2, 2019, bringing the total number of sediment samples to 63.

Sediment samples collected in the on-site ditches, Upper Sunset Lake and Lower Sunset Lake were surficial (0-6 inches) only. Sediment samples upstream of the Entrance Dike (background samples) and below the Lower Sunset Lake Dike were collected at two depth intervals, 0-6 inches and 6-12 inches. Samples from a third interval, 12-16 inches, were obtained from a few sampling locations and analyzed for radionuclides and other constituents where possible, based on sample volume. Sediment within the on-site ditches consists of silty sand while sediment within Upper and Lower Sunset Lakes consists of clayey silt with some sand.

Sediment sampling locations are displayed on **Figure 18**. A summary of sediment data focusing primarily on the COPCs is in **Table 5.** A tabulation of the sediment analytical results for the entire list of analyzed parameters is included as **Table A3** in **Appendix A**. Laboratory analytical results are located in **Appendix E**. The subsections below discuss the sediment analytical results by COPC. As discussed below, the data identify limited environmental impact to sediment which is well defined and contained within the CFFF site.

5.1 Chlorinated Volatile Organic Compounds

PCE was detected in sediment sample SED-17 (**Figure 18)** at a concentration of 5.5 µg /kg (**Table 5**). A duplicate sample associated with this sediment sampling location did not contain PCE (<4.8 µg /kg). No other CVOCs were detected in the sediment samples.

5.2 Nitrate

Nitrate was detected in 29 sediment samples (**Figure 18**) at concentrations ranging from 0.20 milligrams per kilogram (mg/kg) to 2.7 mg/kg (**Table 5**). The highest concentrations of nitrate in sediment were in samples SED-16 and SED-17. These sample locations are within the extent of the nitrate groundwater plume where impact exceeds the MCL and in areas where the on-site ditch is deeply incised.

5.3 Fluoride

Fluoride was detected in 52 sediment samples (**Figure 18**) at concentrations ranging from 0.69 mg/kg to 49.2 mg/kg (**Table 5**) for samples not collected from within the two WWTP lagoons. A sludge sample from within the Sanitary Lagoon contained the highest concentration of fluoride at 53.3 mg/kg. The highest concentrations of fluoride in sediment outside of the Sanitary Lagoon were in sediment samples SED-23 (38.1 mg/kg) and SED-24 (49.2 mg/kg) collected within the Gator Pond.

5.4 Technetium 99

Tc-99 was detected (**Table 5**) above the Residential Use Screening Level (RUSL, [NUREG, 2006]) in sediment samples SED-23 and SED-24 (**Figure 18**) collected within the Gator Pond. RUSLs are based upon a residential, light farming exposure modeling scenario (including ingestion of homegrown produce) where a full-time resident spends 200 days/year (yr) indoors, 70 days/yr outdoors and 4 days/yr gardening for a total time of direct exposure of 274 days/yr 24 hours/day for a dose equivalent of 25 millirem per year (mrerm/yr).

These screening levels represent highly conservative concentrations at which an unrealistic amount of direct exposure to a member of the public (i.e. in active contact with the soil containing these concentrations) results in a low dose (25 mrem/yr) of radiation exposure. According to the United States Nuclear Regulatory Commission (NRC) website, the average person's dose equivalent exposure to radiation per year from natural and manmade sources is approximately 620 mrem/yr (NRC, 2020). For reference, the National Council on Radiation Protection and Measurements (NCRP) reports that the radiation dosage of a full body CT scan is approximately 1,000 mrem/exam and a CT scan of the head is approximately 200 mrem/exam (NCRP, 2009).

5.5 Uranium

U isotopes were detected (**Table 5**) above their RUSL in nine sediment sample locations, including the four sludge samples (**Figure 18**) from the WWTP lagoons (Sanitary and East). Sediment from one location (SED-16) within the on-site ditch and four locations (SED-19, SED-20, SED-22, and SED-43) within Upper and Lower Sunset Lakes at the 0-6 inch sampling interval exceeded the RUSL. U 233/234 were the most common isotopes exceeding RUSL with concentrations in sediment samples from the on-site ditch and Upper and Lower Sunset Lakes ranging from 14.9 picocuries per gram (pCi/g) to 117 pCi/g versus an RUSL of 13 pCi/g.

Total dosage of radiation exposure is calculated using a "sum of fractions" (SOF) or SOF approach when multiple radionuclides are present. A SOF value less than 1.0 indicates that the total dosage is less than 25 mrem/yr and a value greater than or equal to 1.0 means that the total dosage is at least 25 mrem/yr. Sediment samples SED-11, SED-12, and SED-51 through SED-56 are considered background sediment samples. Further explanation and SOF analysis is contained in the *Technical Basis Document - Sediment Sampling and Sediment Transect Results for the Westinghouse Columbia Fuel Fabrication Facility (WCFFF)* located in **Appendix B** (Leidos, 2020).

One sludge sample (SED-25) from the Sanitary Lagoon Area Operable Unit exceeded the Industrial Use Screening Level (IUSL) of 39 pCi/G for U 235/236 at concentration of 41.1 pCi/g. This sample also contained the highest U 233/234 concentration at 907 pCi/g, which is below the IUSL of 3,310 pCi/g. The Sanitary Lagoon is an earthen, unlined lagoon within a controlled and fenced area of the facility that was built in 1968 for treating site sanitary sewage according to CFFF personnel. An extended aeration package plant was added in 1975. Under the CA, further assessment of this operable unit will be performed.

This lagoon receives sanitary wastewater from the Chemical Area Operable Unit of the facility that may contain U from showering and handwashing. Wastewater within this lagoon is treated in an extended aeration package plant prior to discharge to a polishing lagoon. Larger solid materials within the wastewater are removed by the package plant while finer solids pass through the package plant screens and settle within the lagoon. U has a high affinity to adsorb to organic materials such as the biosolids in the Sanitary Lagoon.

Effluent discharge from the WWTP to the Congaree River is monitored for various analytes under National Pollution Discharge Elimination System (NPDES) permit # SC0001848. As part of the facility's regulatory requirement to the NRC under 10 CFR 40.65 and 10 CFR 70.59 "Effluent Monitoring Reporting Requirements", effluents from plant operations are also monitored to assess the quantities of radionuclides discharged into the environment. The cumulative radioactivity released is summarized semi-annually and annually and input into models developed by the NRC and EPA to estimate the dose to the public. According to the February 25, 2020 NRC Annual Discharge Report (CFFF, 2020E), the facility's discharge of U from the WWTP over the period of January through December 2020 was an order of magnitude below the NRC and EPA regulatory limits designed to protect public health and safety.

5.6 Non-Constituents of Potential Concern

Of the 63 sediment samples (not including field duplicates) analyzed for VOCs, 49 sediment samples (**Figure 18**) contained concentrations of Acetone (**Table 5**) and 18 sediment samples contained concentrations of 2-butanone (also known as methyl ethyl ketone or MEK). Of the 14 background sediment samples (not including field duplicates), 10 sediment samples contained acetone and four sediment samples contained 2-butanone. CFFF personnel are not aware of historic or current manufacturing activities using acetone or 2-butanone that could have impacted sediment at the site.

According to the National Institute of Health (NIH, 2020), acetone occurs naturally in plants, trees, forest fires, vehicle exhaust and in the metabolic breakdown of fats in animals and 2-butanone is a metabolic byproduct of plants and animals, is released into the atmosphere by volcanoes and forest fires and is commonly found in food such as fruits and vegetables.

6. Technetium-99 Soil Data Summary

Soil samples were collected for Tc-99 analysis at 14 locations in potential source areas. Four samples were collected from each location at depths of 0-1 foot BLS, 1-3 feet BLS, 3-5 feet BLS and 5-7 feet BLS. No Tc-99 was detected in the soil samples. Analytical results for Tc-99 are summarized in **Table 6**. Soil sampling locations are displayed on **Figure 19**. Laboratory analytical results are located in **Appendix E**. Since no source area was identified, additional sampling will be conducted in accordance with the work plan approved by DHEC on February 13, 2020.

7. Hydraulic Characteristics of the Floodplain

Hydraulic conductivity tests (slug tests) were performed in the four newly installed floodplain monitoring wells (W-94 through W-97). Slug tests were conducted to provide estimates of the hydraulic conductivity in the portion of the aquifer immediately surrounding a well screen. Slug tests were conducted by two methods, falling head test (slug in) and rising head test (slug out).

Falling head tests were conducted by quickly inserting a solid polyvinyl chloride (PVC) cylinder (slug) into a well. The resulting water level rises and is then monitored with time as it declines back toward static level. Rising head tests were conducted by quickly removing a submerged slug from a well. The resulting water level declines and then is monitored with time as it rises back to static level. Changes in water levels were monitored using pressure transducer data loggers (In-Situ Level TROLL® 700 or similar). The testing methods and data analysis followed the procedures described by Bouwer and Rice (1976) and Bouwer (1989).

Slug tests were previously conducted on monitoring wells W-13R, W-15, W-39, W-48, W-60 and W-61 in December 2018. The results of these slug tests have not been reported and are included with this report. The purpose of these slug tests was to better understand groundwater flow velocity within the upper and lower surficial aquifers in areas impacted by CVOCs. This data will be evaluated in the RI Report with hydraulic conductivity data collected in the surficial aquifer during previous scopes of work.

Estimates of the hydraulic conductivity in the floodplain aquifer (monitoring wells W-94 through W-97) range from 5.31 feet per day (ft/day) in monitoring well W-94 to 80.45 ft/day in monitoring well W-94 with an average hydraulic conductivity of 46.82 ft/day. The hydraulic conductivity test results are summarized on **Table 7** and are provided in **Appendix C**.

8. Conceptual Site Model

As documented in the *Final RI Work Plan* (CFFF, 2019B), the Conceptual Site Model (CSM) evolves through site investigation and remediation life cycles. At different stages in the investigation and remedy analysis, CSMs serve different purposes. CFFF is currently in the investigation stage. The purpose of the investigation CSM is to support the decision process, leading to interim remedial action (as appropriate), remedial investigation, feasibility analysis, and selection of site remedy.

The CSM has been enhanced by additional lithologic, bathymetric and COPC data. This data validated geologic understanding above the bluff, provided valuable information about the geology of the floodplain, and furthered the understanding of groundwater/surface water interaction. Incorporation of the data collected during this phase of work into the CSM reshaped it into a more effective decision-making tool. Selected outputs of the current CSM, known as Rev. 1, are contained in **Appendix D**.

9. Private Water Supply Well Survey

During this phase of work, a private water supply well survey was conducted within a 1-mile radius of the facility's property boundary. As documented in **Section 3.7**, CFFF obtained access agreements and groundwater samples from four private water supply wells (WSW-01 through WSW-04) on properties west, southwest and south of the developed area of the CFFF property. These wells are side gradient to downgradient of the site.

The closest downgradient private water supply well is approximately 5,400 feet (over 1 mile) southwest of the known extent of COPC impact. One of the properties to the west also contained two wells that are not in use. As discussed in **Section 3.7**, analysis of groundwater samples from four private water supply wells identified no COPCs related to manufacturing operations at CFFF.

AECOM personnel conducted a windshield survey for private water supply wells for upgradient properties, generally including those properties northwest, north and northeast of the facility. This survey identified 30 additional water supply wells within the search radius. The closest upgradient private water supply well is located approximately 4,400 feet north of the known extent of COPC impact. Results of the private water supply well survey are in **Table 8** and displayed on **Figure 16**. The survey results reinforce that there is no potential for COPCs from CFFF to impact private water supply wells.

10. Variances from the Remedial Investigation Work Plan

The following variances from the *Final RI Work Plan* (CFFF, 2019B) occurred during this scope of work:

- After the submittal of the June 2019 *Final RI Work Plan* (CFFF, 2019B), DHEC requested that an additional staff gauge be installed within Mill Creek. This staff gauge was installed within Mill Creek downstream of the Lower Sunset Lake Dike spillway.
- Field parameters (i.e. dissolved oxygen, turbidity) were not collected during surface water sampling. This oversight did not affect the analytical results of these samples.
- Vertical groundwater profiling in the floodplain was not part of the *Final RI Work Plan* (CFFF, 2019B). This additional groundwater assessment was proposed in the *Additional Floodplain Assessment Plan* (CFFF, 2019C) submitted to DHEC on August 2, 2019 and approved by DHEC on August 7, 2019.
- Several underground electric lines were located close to the proposed locations of the monitoring well pair W-77 and W-93 and did not allow safe clearance for drilling activities. Therefore, these wells were installed approximately 50 feet southeast of their proposed locations.
- Concrete approximately one foot below the asphalt surface of the road paralleling the southern portion of the Chemical Area Operational Unit and the facility's power bank running down the middle of the northern lane of this road resulted in monitoring well W-78 being moved across the road. Therefore, monitoring well W-78 was installed approximately 25 feet south of its proposed location.
- Monitoring wells W-83 and W-86 were installed deeper into the surficial aquifer due to an anomalously thick clay layer at the surface. The top 26 and 23 feet, respectively, of the subsurface in the area of these two wells consisted of clay or silty clay compared to approximately 8 feet of silt or clay in other areas of the developed portion of the site. This clay deposit may represent a former oxbow lake or abandoned stream channel that slowly filled by silt and clay overbank deposits.
- Additional sediment sampling was conducted within Mill Creek including Upper and Lower Sunset Lakes. A *Sediment Transect Sampling Plan* (CFFF, 2019D) was submitted to DHEC on October 25, 2019 documenting proposed additional sediment sampling locations within Mill Creek. DHEC approved the *Sediment Transect Sampling Plan* (CFFF, 2019D) on November 1, 2019.

11. Conclusions and Recommendations

11.1 Conclusions

The following conclusions can be drawn from this newly acquired data:

- Groundwater, surface water and sediment data indicate that there are no COPCs migrating off the site.
- No Tc-99 was identified in the sampled soil to further evaluate Tc-99 sourcing.
- Analysis of samples from four private water supply well analysis identified no COPCs related to CFFF. The closest private water supply well is approximately 5,400 feet (over 1 mile) downgradient of the known extent of COPC impact. The survey findings reinforce that there is no potential for COPCs from CFFF to impact private water supply wells.
- The documented impact poses no potentially significant threat to plant workers, the general public or the environment.
- In general, the vertical and horizontal extent of COPC impacts has been further defined and shows that the groundwater plume sizes and locations are similar to previously identified impacts. Analysis of groundwater samples collected from the newly installed monitoring network around the primary manufacturing area identified U in one well. The impact of U is well defined and limited to an area immediately adjacent to the plant building.
- Conditions within the floodplain are conducive to natural degradation of the CVOC plume which will limit its size.
- Sediment impacted by COPCs is limited and well defined.
- An improved understanding of site geology and hydrogeology has been developed, particularly with respect to the floodplain and how shallow groundwater interacts with surface water and sediment. The Conceptual Site Model (CSM) has been enhanced by the newly acquired data making it a more effective decision-making tool.

11.2 Recommendations

Based on the data collected during this phase of work, CFFF recommends the following:

- Conduct additional assessment as necessary to fill identified data gaps. A Phase II RI Work Plan documenting the scope of work for Phase II assessment will be submitted to DHEC for review and input.
- Complete the additional Tc-99 investigation work plan approved by DHEC on February 13, 2020, to further evaluate potential Tc-99 source areas since none have yet been identified.

12. References

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Tables

Table 1
Summary of Well Construction Details and Groundwater Elevations
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Well	Well Diameter (in)	Date Measured	Total Depth (ft bgs)	Screen Length (ft)	Screen Interval (ft bgs)	Ground Surface Elevation	Top of Casing Elevation (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
WRW-1	4	10/14/19	33	10	19.2-30	136.00	136.95	9.64	127.31
WRW-2	4	10/14/19	32.3	10	19-29.2	136.98	139.93	18.62	121.31
W-3A	2	10/14/19	82.5	10	72.5-82.5	117.64	120.08	8.79	111.29
W-4	4	10/14/19	12	2	10-12	116.50	116.09	10.38	105.71
W-6	2	10/14/19	28.5	5	23.5-28.5	136.96	136.46	11.22	125.24
W-7A	2	10/14/19	18	5	13-18	132.94	135.06	12.35	122.71
W-10	2	10/14/19	23.5	5	18.5-23.5	136.89	136.81	16.50	120.31
W-11	2	10/14/19	28.5	3	25.5-28.5	138.45	140.76	19.02	121.74
W-13R	2	10/14/19	20	5	15-20	136.38	136.13	12.96	123.17
W-14	2	10/14/19	28.5	5	23.5-28.5	136.22	137.83	17.62	120.21
W-15	2	10/14/19	18.5	5	13.5-18.5	126.67	127.90	12.90	115.00
W-16	2	10/14/19	18.5	3	15.5-18.5	125.64	124.93	3.71	121.22
W-17	2	10/14/19	28	5	23.5-28	137.57	139.27	14.56	124.71
W-18R	2	10/14/19	17.5	5	12.5-17.5	137.15	136.71	12.20	124.51
W-19B	4	10/14/19	40.5	10	30-40.5	140.58	142.85	25.17	117.68
W-20	2	10/14/19	16.3	5	11.5-16.3	113.27	116.16	10.60	105.56
W-22	2	10/14/19	17.8	5	13.4-17.8	137.08	136.51	11.68	124.83
W-23R	2	10/14/19	20.5	5	15.5-20.5	137.45	140.47	19.19	121.28
W-24	2	10/14/19	15.1	5	10.1-15.1	139.83	141.94	11.78	130.16
W-25	2	10/14/19	27.7	5	22.9-27.7	114.98	115.88	10.95	104.93
W-26	2	10/14/19	30.5	5	25.5-30.5	140.59	142.21	26.37	115.84
W-27	2	10/14/19	18.9	5	14.1-18.9	120.22	121.87	11.28	110.59
W-28	2	10/14/19	14.7	5	9.8-14.7	136.98	138.88	12.60	126.28
W-29	2	10/14/19	15.1	5	10-15.1	136.96	138.61	12.41	126.20
W-30	2	10/14/19	15.2	5	10.2-15.2	136.87	138.81	12.65	126.16
W-32	2	10/14/19	22.5	5	17-22.5	138.33	140.61	19.59	121.02
W-33	2	10/14/19	20.7	5	15.1-20.7	138.06	139.33	15.85	123.48
W-35	2	10/14/19	21	5	16-21	136.59	139.07	11.78	127.29
W-36	2	10/14/19	20	5	15-20	134.16	136.29	8.66	127.63
W-37	2	10/14/19	20.5	5	15.5-20.5	136.58	139.04	12.05	126.99
W-38	2	10/14/19	20	5	15-20	136.71	136.51	10.45	126.06
W-39	2	10/14/19	22	10	12-22	139.08	141.15	16.25	124.90
W-40	2	10/14/19	15	10	5-15	136.42	139.26	11.95	127.31
W-41R	2	10/14/19	24	10	14-24	131.02	133.81	15.94	117.87
W-42	2	10/14/19	30	10	20-30	137.83	140.96	26.32	114.64
W-43	2	10/14/19	20.5	10	10.5-20.5	138.09	141.33	15.65	125.68
W-44	2	10/14/19	26	10	16-26	131.93	134.86	18.42	116.44
W-45	2	10/14/19	16	10	6-16	137.20	140.02	12.85	127.17
W-46	4	10/14/19	25.5	10	15.5-25.5	132.39	134.74	14.02	120.72
W-47	4	10/14/19	44.8	10	34.3-44.8	140.70	141.90	26.99	114.91
W-48	4	10/14/19	41.3	10	30.7-41.3	139.74	142.56	27.21	115.35
W-49	2	10/14/19	115	10	105-115	137.82	140.25	31.07	109.18
W-50	2	10/14/19	124.5	10	114.5-124.5	136.79	139.58	25.27	114.31
W-51	2	10/14/19	15	5	10-15	136.67	136.51	9.27	127.24
W-52	2	10/14/19	15	5	10-15	136.71	136.19	9.15	127.04
W-53	2	10/14/19	15	5	10-15	136.83	136.54	9.42	127.12
W-54	2	10/14/19	15	5	10-15	136.79	136.52	9.53	126.99
W-55	2	10/14/19	15	5	10-15	136.90	136.63	9.72	126.91

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Hopkins, SC

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W-56	2	10/14/19	15	5	10-15	136.83	136.68	9.75	126.93
W-57	2	10/14/19	15	5	10-15	136.90	136.73	9.97	126.76
W-58	2	10/14/19	15	5	10-15	136.85	136.37	10.63	125.74
W-59	2	10/14/19	15	5	10-15	136.10	136.42	10.77	125.65
W-60	2	10/14/19	37	5	32-37	137.25	140.20	22.12	118.08
W-61	2	10/14/19	23	10	13-23	137.34	140.60	18.96	121.64
W-62	2	10/14/19	24	5	19-24	125.63	128.38	13.59	114.79
W-63	2	10/14/19	42	5	37-42	138.78	141.02	27.31	113.71
W-64	2	10/14/19	31	10	21-31	140.15	142.75	27.25	115.50
W-65	2	10/14/19	31.5	5	26.5-31.5	138.17	140.95	14.07	126.88
W-66	2	10/14/19	22	10	12-22	138.01	140.91	13.72	127.19
W-67	2	10/14/19	31	10	21-31	132.60	135.26	19.54	115.72
W-68	2	10/14/19	18	5	13-18	113.40	116.53	13.53	103.00
W-69	2	10/14/19	20.75	10	7.75-17.75	137.67	140.64	9.75	130.89
W-70	2	10/14/19	49	5	44-49	138.02	141.00	14.88	126.12
W-71	2	10/14/19	103	10	93-103	137.96	140.72	25.98	114.74
W-72	2	10/14/19	15	10	5-15	136.81	136.29	9.24	127.05
W-73	2	10/14/19	15	10	5-15	136.85	136.45	9.61	126.84
W-74	2	10/14/19	30	5	25-30	136.64	139.93	13.46	126.47
W-75	2	10/14/19	15	10	5-15	136.60	139.85	13.06	126.79
W-76	2	10/14/19	15	10	5-15	137.04	136.85	9.78	127.07
W-77	2	10/14/19	15	10	5-15	136.85	136.53	9.98	126.55
W-78	2	10/14/19	15	10	5-15	136.75	136.31	10.05	126.26
W-79	2	10/14/19	15	10	5-15	136.49	136.12	9.06	127.06
W-80	2	10/14/19	15	10	5-15	136.34	135.87	11.08	124.79
W-81	2	10/14/19	15	10	5-15	136.81	136.43	12.02	124.41
W-82	2	10/14/19	15	10	5-15	136.57	136.23	12.72	123.51
W-83	2	10/14/19	25.5	10	15.5-25.5	136.22	135.81	13.95	121.86
W-84	2	10/14/19	20	10	10-20	136.66	135.99	8.45	127.54
W-85	2	10/14/19	44	5	39-44	135.74	138.69	22.01	116.68
W-86	2	10/14/19	34	10	24-34	135.68	138.77	20.59	118.18
W-87	2	10/14/19	32	5	27-32	136.66	136.39	8.93	127.46
W-88	2	10/14/19	41	5	36-41	140.06	143.10	23.42	119.68
W-89	2	10/14/19	25	10	15-25	140.12	142.82	22.10	120.72
W-90	2	10/14/19	40	5	35-40	140.23	143.33	27.38	115.95
W-91	2	10/14/19	25	10	15-25	139.57	142.81	27.56	115.25
W-92	2	10/14/19	34	5	29-34	120.11	123.33	17.77	105.56
W-93	2	10/14/19	35	5	30-35	136.87	136.49	10.42	126.07
W-94	2	10/14/19	29	5	24-29	115.28	118.04	12.14	105.90
W-95	2	10/14/19	33	5	28-33	113.53	116.40	10.71	105.69
W-96	2	10/14/19	30	5	25-30	113.65	116.46	11.08	105.38
W-97	2	10/14/19	18	5	13-18	113.92	116.93	7.43	109.50
Gator SG	-	10/14/19	-	-	-	-	120.31	0.85	117.16
Upper SG	-	10/14/19	-	-	-	-	112.41	0.60	109.01
Lower SG	-	10/14/19	-	-	-	-	112.39	0.26	108.65
Creek SG	-	10/14/19	-	-	-	-	109.05	0.64	105.69

Notes
in - inch
ft - feet
ft bgs - feet below ground surface
SG - staff gauge

Table 2
Summary of Floodplain Vertical Groundwater Profiling Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	L-1	L-1	L-1	L-1	L-1	L-1-DUP	L-8	L-8	L-8	L-8	L-9	L-9
			Depth	10 - 15 ft	28 - 33 ft	48 - 53 ft	63 - 68 ft	78 - 83 ft	78 - 83 ft	8 - 13 ft	17 - 22 ft	25 - 30 ft	41 - 46 ft	10 - 15 ft	23 - 28 ft
			Date	8/14/2019	8/14/2019	8/14/2019	8/15/2019	8/15/2019	8/15/2019	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Chemical	Fluoride	4	mg/L	NA	NA	NA	NA	NA	NA	**0.26**	< 0.10	< 0.10	**0.14**	**0.48**	< 0.10
	Nitrate as N	10	mg/L	NA	NA	NA	NA	NA	NA	**0.081**	< 0.020	< 0.020	< 0.020	**5.4**	< 0.020
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	**3.8**	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	**2.2**	< 1.0	**6.5**	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	**2.1**	< 1.0	**3.0**	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	**2.7**	< 1.0	< 1.0	< 1.0	< 1.0	NA*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 2
Summary of Floodplain Vertical Groundwater Profiling Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	L-9-DUP	L-9	L-10	L-10	L-10	L-17	L-17	L-18	L-18	L-19	L-19
			Depth	23 - 28 ft	32 - 37 ft	9 - 14 ft	18 - 23 ft	28 - 33 ft	15 - 20 ft	25 - 30 ft	15 - 20 ft	24 - 29 ft	7 - 12 ft	21 - 26 ft
			Date	8/21/2019	8/21/2019	8/19/2019	8/20/2019	8/20/2019	8/16/2019	8/16/2019	8/19/2019	8/19/2019	8/20/2019	8/20/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Chemical	Fluoride	4	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	NA	NA	NA	NA	**7.8**	**0.16**
	Nitrate as N	10	mg/L	< 0.020	< 0.020	**1.1**	**0.18**	**0.19**	NA	NA	NA	NA	**0.092**	**0.10**
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**6.2**	**5.4**	< 1.0	**1.2**	**1.0**	< 1.0
	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3**	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.1**	< 1.0	< 1.0

Notes: **MCL - Maximum Contaminant Level**

mg/L - milligrams per liter

ug/L - micrograms per liter

Bold concentrations indicate detections

Concentrations in shaded cells exceed their MCL

NA - Not Analyzed

NA* - Not Analyzed due to an oversight by Sample Receiving at the lab not logging the VOC sample bottles in. As a result, the sample was not analyzed for VOCs.

Table 3
Summary of October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-RW1	W-RW2	W-3A	W-4	W-6	W-7A	W-10	W-10-DUP	W-11	W-13R	W-14	W-15	W-16	W-17	W-18R	W-19B	W-20	W-22	W-23R	W-24
			Date	10/3/2019	10/11/2019	10/10/2019	10/10/2019	10/7/2019	10/9/2019	10/9/2019	10/9/2019	10/8/2019	10/8/2019	10/18/2019	10/21/2019	10/21/2019	10/21/2019	10/7/2019	10/21/2019	10/15/2019	10/7/2019	10/18/2019	10/11/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	9.09	6.35	3.19	< 5.00	7.82	< 5.00	4.27	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
	Beta particles	50**	pCi/L	3.98	11.9	< 5.00	19.4	1370	114	81.3	76.2	2450	53.2	35.6	174	10.6	538	150	< 5.00	< 5.00	29.6	< 5.00	< 5.00
	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	41.3	2440	210	118	121	3420	63.4	< 50.0	253	< 50.0	820	214	< 50.0	< 50.0	57.4	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	0.035 J	< 0.070	< 0.070	0.0177 J	< 0.070	< 0.070
	Uranium-238		ug/L	0.0815 J	0.0743 J	< 0.200	0.146 J	0.232	0.698	0.083 J	0.114 J	< 0.200	0.139 J	0.368	< 0.200	< 0.200	0.0855 J	4.06	< 0.200	< 0.200	0.854	< 0.200	< 0.200
	Total Uranium	30	ug/L	0.0815 J	0.0743 J	< 0.200	0.146 J	0.232	0.698	0.083 J	0.114 J	< 0.200	0.139 J	0.368	< 0.200	< 0.200	0.0855 J	4.1	< 0.200	< 0.200	0.872	< 0.200	< 0.200
Chemical	Fluoride	4	mg/L	0.055	0.099	0.015	4.86	0.126	6.47	3.32	3.25	0.021	8.11	0.079	1.88	9.5	2.22	6.34	0.019	0.077	5.52	0.017	0.025
	Nitrate as N	10	mg/L	2.1	20	< 0.020	0.023	210	390	37	37	56	18	0.061	35	3.2	16	770	3.8	< 0.020	100	0.71	< 0.020
	Ammonia		mg/L	0.0129	0.0581	0.0256	0.404	134	48.5	6.46	6.62	4.09	31.5	4.26	12.6	13.3	5.79	126	0.0146	0.0632	61.8	0.0154	0.0283
Metals	Antimony	6	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	2.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	1.4	140	< 1.0	< 1.0	16	1.9	< 1.0	< 1.0	1.4	15	1.1	12	7.8	4.3	3.5	150	< 1.0	< 1.0	< 1.0	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	< 1.0	8.3	< 1.0	< 1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0	1.4	< 1.0	2.0	2.2	< 1.0	< 1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 3
Summary of October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-25	W-26	W-27	W-28	W-29	W-30	W-32	W-33	W-33-DUP	W-35	W-36	W-37	W-38	W-39	W-40	W-41R	W-42	W-43	W-44	W-45
			Date	10/16/2019	10/14/2019	10/10/2019	10/7/2019	10/7/2019	10/7/2019	10/8/2019	10/17/2019	10/17/2019	10/2/2019	10/2/2019	10/2/2019	10/4/2019	10/18/2019	10/15/2019	10/14/2019	10/22/2019	10/18/2019	10/14/2019	10/2/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	**10.1**	< 5.00	< 5.00	< 5.00	< 5.00	**7.57**	**7.17**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**8.93**	< 5.00	< 5.00	< 5.00	**4.37**
	Beta particles	50**	pCi/L	**7.27**	**12.5**	**5.10**	**8.26**	**7.67**	**20.8**	**175**	**7.78**	**5.81**	< 5.00	< 5.00	< 5.00	< 5.00	**8.84**	< 5.00	**14.3**	< 5.00	< 5.00	< 5.00	**16.6**
	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	**49.7**	**321**	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	**0.026 J**	**0.199**	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	**0.0216 J**
	Uranium-238		ug/L	**0.295**	< 0.200	< 0.200	**0.429**	**2.03**	**8.71**	**0.224**	< 0.200	< 0.200	< 0.200	< 0.200	**0.0936 J**	**0.183 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.983**
	Total Uranium	30	ug/L	**0.295**	< 0.200	< 0.200	**0.429**	**2.05**	**8.91**	**0.224**	< 0.200	< 0.200	< 0.200	< 0.200	**0.0936 J**	**0.183 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**1**
Chemical	Fluoride	4	mg/L	**0.126**	**1.42**	**3.97**	**5.45**	**4.8**	**8.06**	**3.66**	**0.152**	**0.136**	**0.025**	**0.007**	**0.02**	**0.176**	**0.024**	**0.166**	**0.03**	**1.99**	**0.111**	**0.023**	**0.633**
	Nitrate as N	10	mg/L	**0.067**	**3.2**	< 0.020	**6.3**	**11**	**120**	**170**	**13**	**13**	**3.2**	**0.11**	**3.5**	**4.3**	**73**	**4.3**	**65**	**4.7**	**6.3**	**2.4**	**0.093**
	Ammonia		mg/L	**1.91**	**1.75**	**6.29**	**0.884**	**22.4**	**1.83**	**47.9**	**0.0134**	**0.0189**	**0.0075**	**0.0089**	**0.0088**	**0.0141**	**0.0218**	**0.0203**	**0.0299**	**0.806**	**0.0198**	**0.0186**	**2.08**
Metals	Antimony	6	ug/L	**4.52 J**	**3.64 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**4.02 J**	< 20.0	< 20.0	< 20.0	**3.87 J**	**4.6 J**	**8.79 J**	**8.02 J**	**6.21 J**	< 20.0	**3.76 J**	< 20.0	**8.1 J**
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	**3.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**13**	< 1.0	**4.4**	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.4**	**300**	**330**	**2.6**	< 1.0	< 1.0	**1.8**	**290**	< 1.0	**190**	< 1.0	< 1.0	< 1.0	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**38**	**24**	< 1.0	< 1.0	< 1.0	**11**	**5.2**	< 1.0	**14**	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 3
Summary of October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-46	W-47	W-48-DUP	W-48	W-49-DUP	W-49	W-50	W-51	W-52	W-53	W-54	W-54-DUP	W-55	W-56	W-57	W-58	W-59	W-60	W-61	W-62
			Date	10/21/2019	10/17/2019	10/21/2019	10/21/2019	10/24/2019	10/24/2019	10/15/2019	10/3/2019	10/3/2019	10/3/2019	10/4/2019	10/4/2019	10/4/2019	10/4/2019	10/3/2019	10/4/2019	10/5/2019	10/17/2019	10/17/2019	10/22/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	438	264	< 5.00	4.21	44.4	< 5.00	< 5.00	< 5.00
	Beta particles	50**	pCi/L	40.4	61.6	7.64	9.32	< 5.00	< 5.00	< 5.00	3.56	< 5.00	< 5.00	< 5.00	< 5.00	77.3	54.5	< 5.00	< 5.00	17.4	< 5.00	< 5.00	4.85
	Technetium-99	900	pCi/L	62.8	94.2	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.052	0.034 J	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	5.79	4.19	< 0.070	0.049 J	0.659	< 0.070	< 0.070	< 0.070
	Uranium-238		ug/L	< 0.200	< 0.200	< 0.200	< 0.200	0.0865 J	0.0695 J	0.101 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	177	130	0.207	1.67	21.6	< 0.200	< 0.200	< 0.200
	Total Uranium	30	ug/L	< 0.200	< 0.200	< 0.200	< 0.200	0.0865 J	0.0695 J	0.101 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	183	134	0.207	1.72	22.2	< 0.200	< 0.200	< 0.200
Chemical	Fluoride	4	mg/L	0.033	4.45	0.321	0.33	0.053	0.003	0.035	0.215	1.39	0.081	0.258	0.26	0.062	0.257	0.057	0.18	4.18	0.034	0.036	0.019
	Nitrate as N	10	mg/L	7.8	42	4.9	5.3	< 0.020	< 0.020	< 0.020	0.11	1.3	0.57	2.8	2.8	3.7	4.2	4.6	9.7	14	0.035	2.5	4.0
	Ammonia		mg/L	0.0129	16.5	0.0422	0.0446	0.0097	0.0151	0.0185	0.256	0.0212	0.0397	0.0037	0.0125	0.0108	0.009	0.0155	18.6	12.3	0.0251	0.0274	0.0162
Metals	Antimony	6	ug/L	< 20.0	5.33 J	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	7.32 J	< 20.0	4.12 J	< 20.0	< 20.0	7.39 J	4.3 J	7.38 J	4.22 J	< 20.0	5.44 J	< 20.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	2.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	2.5	1.6	200	200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	42
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	4.7	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 3
Summary of October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-63	W-64	W-65	W-66	W-67	W-68	W-69	W-70	W-71	W-72	W-73	W-74	W-75	W-76	W-77	W-78	W-79	W-80	W-81	W-82
			Date	10/21/2019	10/17/2019	10/17/2019	10/17/2019	10/18/2019	10/22/2019	10/23/2019	10/23/2019	10/23/2019	10/4/2019	10/4/2019	10/9/2019	10/9/2019	10/5/2019	10/6/2019	10/5/2019	10/7/2019	10/6/2019	10/8/2019	10/8/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**865**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
	Beta particles	50**	pCi/L	< 5.00	**70.3**	**7.14**	< 5.00	**65.3**	< 5.00	< 5.00	< 5.00	**8.11**	< 5.00	< 5.00	< 5.00	< 5.00	**6.88**	**111**	< 5.00	**5.90**	**7.29**	< 5.00	**4.82**
	Technetium-99	900	pCi/L	< 50.0	**81.9**	< 50.0	< 50.0	**84.3**	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	**101**	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.089**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	**0.0308 J**	**10.1**	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070
	Uranium-238		ug/L	**0.123 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.165 J**	**0.095 J**	**0.0831 J**	< 0.200	< 0.200	**0.915**	**237**	**0.0933 J**	**0.0892 J**	**0.151 J**	**0.0728 J**	**0.151 J**
	Total Uranium	30	ug/L	**0.123 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.165 J**	**0.095 J**	**0.0831 J**	< 0.200	< 0.200	**0.946**	**247**	**0.0933 J**	**0.0892 J**	**0.151 J**	**0.0728 J**	**0.151 J**
Chemical	Fluoride	4	mg/L	**0.259**	**4.27**	**0.783**	**0.076**	**0.01**	**0.02**	**0.022**	<0.100	**0.084**	**0.116**	**0.071**	**0.019**	**0.109**	**1.45**	**9.21**	**13.4**	**2.4**	**1.57**	**0.042**	**0.046**
	Nitrate as N	10	mg/L	**0.34**	**42**	**0.64**	**1.5**	**14**	**3.0**	**0.16**	**1.4**	**0.021**	**1.5**	**2.0**	**4.9**	**0.063**	**9.8**	**12**	**3.5**	**4.0**	**8.3**	**3.1**	**0.99**
	Ammonia		mg/L	**0.023**	**16**	**0.0489**	**0.0336**	**1.31**	**0.0143**	**0.0341**	**0.0077**	**0.0149**	**0.275**	**0.0167**	**0.159**	**0.391**	**0.0154**	**7.11**	**0.0271**	**0.0146**	**0.0927**	**0.0762**	**0.0275**
Metals	Antimony	6	ug/L	< 20.0	**8.91 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**7.15 J**	**5.12 J**	**3.54 J**	**4.18 J**	**4.12 J**	**5.99 J**	**3.53 J**	**3.58 J**	**5.15 J**	**5.32 J**	< 20.0	**7.19 J**
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	**13**	**22**	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	**1.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	**1.0**	**1.3**	**220**	**480**	**49**	**110**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**19**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	**1.1**	< 1.0	**84**	**8.5**	**8.4**	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.5**	< 1.0	**63**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 3
Summary of October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-83	W-84	W-85	W-86	W-87	W-88	W-89	W-90	W-92	W-93	W-94	W-95	W-96	W-97	WSW-01*	WSW-02*	WSW-03*	WSW-04*
			Date	10/8/2019	10/8/2019	10/23/2019	10/23/2019	10/2/2019	10/22/2019	10/22/2019	10/22/2019	10/10/2019	10/6/2019	10/15/2019	10/15/2019	10/11/2019	10/11/2019	10/15/2019	10/22/2019	10/24/2019	10/24/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**3.06**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**3.63**	**7.11**
	Beta particles	50**	pCi/L	< 5.00	< 5.00	< 5.00	**7.12**	**4.92**	< 5.00	< 5.00	**23.1**	< 5.00	**8.18**	< 5.00	< 5.00	**4.36**	**11.0**	< 5.00	**8.80**	< 5.00	< 5.00
	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070
	Uranium-238		ug/L	< 0.200	**0.0704 J**	< 0.200	< 0.200	**0.457**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.114 J**	< 0.200	< 0.200	**0.272**	< 0.200	**0.776**	**0.482**
	Total Uranium	30	ug/L	< 0.200	**0.0704 J**	< 0.200	< 0.200	**0.457**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.114 J**	< 0.200	< 0.200	**0.272**	< 0.200	**0.776**	**0.482**
Chemical	Fluoride	4	mg/L	**0.079**	**0.087**	**0.23**	**0.511**	**0.278**	**0.012**	**0.011**	**0.039**	**0.099**	**0.043**	**0.043**	**0.077**	**0.111**	**0.375**	**0.023**	**0.103**	**0.013**	**0.013**
	Nitrate as N	10	mg/L	**0.76**	< 0.020	**0.039**	< 0.020	**0.055**	**4.5**	**2.5**	**2.3**	**0.029**	**5.3**	< 0.020	**0.024**	**0.054**	**3.4**	**0.020**	< 0.020	< 0.020	**0.067**
	Ammonia		mg/L	**0.0099**	**0.0119**	**0.03**	**0.0073**	**0.0127**	**0.0127**	**0.0132**	**0.0147**	**3.19**	**0.0324**	**0.246**	**0.145**	**0.228**	**4.89**	**0.0639**	**0.0273**	**0.0655**	**0.0166**
Metals	Antimony	6	ug/L	< 20.0	< 20.0	**6.48 J**	< 20.0	**5.21 J**	< 20.0	< 20.0	< 20.0	< 20.0	**4.77 J**	< 20.0	< 20.0	< 20.0	**3.97 J**	< 20.0	**5.89 J**	< 20.0	< 20.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	**2.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**5.3**	**4.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	**38**	**4.1**	**2.1**	< 1.0	< 1.0	**24**	< 1.0	< 1.0	< 1.0	**4.3**	< 1.0	< 1.0	< 1.0	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	**11**	< 1.0	< 1.0	< 1.0	< 1.0	**2.8**	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0	< 1.0	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Notes:
DUP - field duplicate sample
MCL - Maximum Contaminant Level
*** - private water supply well groundwater sample**
**** - site-specific action level**
pCi/L - picocuries per liter
ug/L - micrograms per liter
mg/L - milligrams per liter
Bold concentrations indicate detections
Concentrations in shaded cells exceed their MCL

Table 4
Summary of Surface Water Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Sample ID	SW-11	SW-12	SW-13	SW-14	SW-16	SW-17	SW-17 (DUP)	SW-18	SW-19	SW-20	SW-21	SW-22	SW-23
			Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019
Group	Analyte	MCL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	**0.0682 J**	< 0.070	< 0.070	< 0.070	**0.0174 J**	**0.0274 J**	< 0.070	< 0.070	< 0.070
	Uranium-238		ug/L	**0.365**	< 0.200	**0.134 J**	**0.297**	**1.71**	**0.229**	**0.246**	**0.304**	**0.507**	**1.11**	**0.16 J**	**0.199 J**	**0.0673 J**
	Total Uranium	30	ug/L	**0.365**	< 0.2	**0.134**	**0.297**	**1.78**	**0.229**	**0.246**	**0.304**	**0.524**	**1.14**	**0.160**	**0.199**	**0.0673**
Chemical	Fluoride	4	mg/L	**0.146**	**0.296**	**0.226**	**0.234**	**1.69**	**0.471**	**0.460**	**0.309**	**0.154**	**0.494**	**0.433**	**0.432**	**4.94**
	Nitrate as N	10	mg/L	< 0.020	< 0.020	< 0.020	**0.63**	**0.48**	**3.8**	**3.8**	**5.7**	< 0.020	< 0.020	< 0.02	< 0.02	**7.3**
	Ammonia		mg/L	**0.546**	**0.228**	**0.249**	**0.233**	**4.35**	**0.290**	**0.290**	**0.208**	**0.376**	**0.640**	**0.244**	**0.187**	**0.459**
Metals	Antimony	6	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**16**	**16**	**14**	< 1.0	< 1.0	< 1	< 1	< 1.0
	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	**1.0**	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0

Notes:
DUP - field duplicate sample
MCL - Maximum Contaminant Level
pCi/L - picocuries per liter
ug/L - micrograms per liter
mg/L - milligrams per liter
Bold concentrations indicate detections
Concentrations in shaded cells exceed their MCL

Table 5
Summary of Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	SED-17-DUP	SED-18	SED-19	SED-20	SED-21	SED-22	SED-23	SED-24	SED-25*	SED-26*
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/16/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019	7/16/2019	7/18/2019	7/18/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89,400	pCi/g	0.00 #	0.00 #	0.00 #	**0.0243 ##**	**5.62 ##**	**4.94 ##**	**7.50 ##**	0.00 #	0.00 #	**6.28 ##**	0.00 #	**4.12 ##**	0.00 #	**50.8**	**35.8**	**8.55 ##**	**1.68 ##**
	Uranium-233/234	13	3,310	pCi/g	**1.14**	**0.925**	**1.67**	**1.42**	**2.58**	**14.9**	**0.658**	**1.07**	**0.219**	**32.5**	**62.5**	**1.86**	**117**	**1.35**	**1.14**	**907**	**222**
	Uranium-235/236	8	39	pCi/g	**0.00159 ##**	**0.0647 ##**	**0.156 ##**	**0.025 ##**	**0.181**	**0.678**	**0.0235 ##**	**0.104 ##**	**0.0173 ##**	**2.30**	**3.12**	**0.104 ##**	**4.98**	**0.00261 ##**	**0.0608 ##**	**41.1**	**11.0**
	Uranium-238	14	179	pCi/g	**0.742**	**1.17**	**1.33**	**0.389**	**2.05**	**2.77**	**0.302**	**0.354**	**0.298**	**8.18**	**14.9**	**1.96**	**28.0**	**1.69**	**0.944**	**149**	**46.9**
Chemical	Fluoride			mg/kg	**1.35 J**	**2.26 J**	**1.45 J**	< 1.21	**2.09**	**8.73**	**0.908 J**	**0.814 J**	< 1.22	**3.51**	**15.7**	**2.17 J**	**4.64**	**38.1**	**49.2**	**53.3**	**4.61**
	Nitrate as N			mg/kg	**0.33**	**0.24**	**0.2**	< 0.2	< 0.20	**2.7**	**2.1**	**0.95**	< 0.20	**1.2**	< 0.20	< 0.2	< 0.2	< 0.20	**0.20**	**0.27**	**1.4**
	Ammonia			mg/kg	**723**	**560**	**98.5**	**6.43**	**49.0**	**13.5**	**4.15**	**3.66**	**3.48**	**401**	**1600**	**532**	**978**	**214**	**70.5**	**2270**	**167**
Metals	Antimony			ug/kg	< 5.29	< 4.93	< 3	**0.511 J**	< 2.42	**0.447 J**	**0.482 J**	**0.512 J**	< 2.53	< 3.75	< 11.7	< 6	< 6.26	< 2.87	< 2.94	**5.01 J**	**1.22 J**
VOCs	1,1-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	2-Butanone			ug/kg	< 25	**180**	< 24	< 17	< 15	< 16	< 19	< 19	< 18	**45**	**45**	< 25	**32**	< 28	< 17	NA	NA
	Acetone			ug/kg	**32**	**110**	**30**	**28**	< 15	< 16	< 19	< 19	< 18	**48**	**110**	**67**	**88**	**91**	**25**	NA	NA
	cis-1,2-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	Tetrachloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	**5.5**	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	Toluene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	trans-1,2-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	Trichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
	Vinyl chloride			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA

Table 5
Summary of Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-27**	SED-28**	SED-29	SED-29	SED-29	SED-30	SED-30	SED-31	SED-31	SED-32	SED-32	SED-33	SED-33	SED-33	SED-34	SED-34	SED-35
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	12 - 16 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	12 - 16 in	0 - 6 in	6 - 12 in	0 - 6 in
				Date	7/18/2019	7/18/2019	11/20/2019	11/20/2019	11/20/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/22/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89,400	pCi/g	0.00 #	**5.75 U**	0.00 #	0.00 #	0.00 #	**2.43 ##**	0.00 #	**0.959 ##**	0.00 #	**5.06 ##**	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #
	Uranium-233/234	13	3,310	pCi/g	**225**	**254**	**6.23**	**1.81**	**1.23**	**5.71**	**1.41**	**2.81**	**2.96**	**3.71**	**10.0**	**5.06**	**1.27**	**1.06**	**3.13**	**2.93**	**2.26**
	Uranium-235/236	8	39	pCi/g	**11.9**	**12.4**	**0.313**	**0.208**	**0.175**	**0.191**	**0.0337 ##**	**0.0669 ##**	**0.110 ##**	**0.097 ##**	**0.469**	**0.394**	**0.0959 ##**	**0.0461 ##**	**0.131 ##**	**0.0487 ##**	**0.179**
	Uranium-238	14	179	pCi/g	**37.4**	**44.6**	**2.51**	**1.55**	**1.16**	**2.51**	**1.28**	**1.75**	**1.69**	**2.00**	**3.28**	**2.52**	**1.56**	**1.09**	**1.81**	**1.73**	**1.59**
Chemical	Fluoride			mg/kg	**171**	**39.3**	**1.14 J**	**2.56**	**2.61**	**2.26**	**3.43**	**3.13**	**3.07**	**3.88**	**4.21**	**1.57 J**	**1.56**	**6.63**	**2.20**	**4.26**	**2.09**
	Nitrate as N			mg/kg	**0.30**	< 0.20	< 0.50	< 0.50	NA	< 0.50	< 0.50	< 0.50	< 0.50	**1.1**	< 0.50	< 0.50	< 0.50	NA	**0.62**	< 0.50	< 0.50
	Ammonia			mg/kg	**395**	**1560**	**455**	**287**	**230**	**394**	**392**	**286**	**118**	**480**	**576**	**248**	**117**	**67.3**	**397**	**336**	**158**
Metals	Antimony			ug/kg	**4.79 J**	**6.81 J**	< 4.85	< 3.53	< 2.97	< 4.08	< 4.41	< 28.4	< 25.6	< 4.15	< 3.44	< 35.6	< 30.3	< 2.73	< 3.59	< 32.8	< 29.9
VOCs	1,1-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	2-Butanone			ug/kg	NA	NA	< 21	< 18	< 24	**26**	**25**	< 16	< 17	**38**	**76**	< 20	**45**	NA	**28**	**28**	< 18
	Acetone			ug/kg	NA	NA	**410**	**420**	**370**	**380**	**530**	**410**	**440**	**450**	**440**	**490**	**400**	NA	**200**	**180**	**390**
	cis-1,2-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	Tetrachloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	Toluene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	trans-1,2-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	Trichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
	Vinyl chloride			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4

Table 5
Summary of Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-35	SED-36	SED-36	SED-37	SED-37	SED-37-DUP	SED-38	SED-39	SED-40	SED-41	SED-42	SED-43	SED-44	SED-45	SED-46	SED-47
				Depth	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/26/2019	11/26/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89,400	pCi/g	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	**16.5 ##**	0.00 #	0.00 #	**0.995 ##**	**5.94 ##**	0.00 #	**6.23 ##**	**2.83 ##**	0.00 #	0.00 #
	Uranium-233/234	13	3,310	pCi/g	**1.59**	**4.40**	**1.50**	**4.88**	**2.04**	**2.33**	**3.26**	**1.86**	**1.90**	**1.72**	**6.12**	**47.5**	**8.86**	**5.86**	**4.02**	**3.18**
	Uranium-235/236	8	39	pCi/g	**0.0433 ##**	**0.210**	**0.0881**	**0.254**	**0.149**	**0.0456 ##**	**0.204**	**0.0122 ##**	**0.131**	**0.0394 ##**	**0.285**	**2.32**	**0.377**	**0.268**	**0.179**	**0.232**
	Uranium-238	14	179	pCi/g	**1.66**	**2.38**	**1.05**	**1.78**	**1.62**	**1.38**	**1.68**	**1.70**	**1.24**	**1.41**	**2.23**	**12.1**	**2.62**	**2.20**	**2.15**	**1.46**
Chemical	Fluoride			mg/kg	**4.29**	< 1.44	< 1.32	**1.35 J**	**1.60**	**0.858 J**	**5.17**	**1.90**	**1.65 J**	**2.68 J**	**5.15 J**	**14.9**	**3.04 J**	**7.90**	**3.41**	**6.02**
	Nitrate as N			mg/kg	< 0.50	< 0.50	**0.55**	< 0.50	< 0.50	< 0.50	**0.66**	< 0.50	< 0.50	**0.63**	**0.83**	**0.50**	< 0.50	**0.82**	**0.62**	**0.59**
	Ammonia			mg/kg	**80.1**	**153**	**99.1**	**451**	**127**	**178**	**576**	**222**	**242**	**466**	**928**	**774**	**389**	**586**	**371**	**1540**
Metals	Antimony			ug/kg	< 28	< 2.89	< 26.9	< 3.27	< 28.3	< 30	< 6.96	< 3.32	< 3.48	< 5.62	< 10.3	< 11.5	< 7.06	< 6.5	< 6.1	< 8.72
VOCs	1,1-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	2-Butanone			ug/kg	< 17	< 18	< 20	< 20	< 18	< 18	< 24	< 19	< 21	< 26	< 27	< 29	< 29	**29**	< 26	**160**
	Acetone			ug/kg	**310**	**370**	**350**	**300**	**350**	**360**	**400**	< 19	**260**	**96**	**59**	**79**	**57**	**130**	**110**	**410**
	cis-1,2-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	Tetrachloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	Toluene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	trans-1,2-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	Trichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
	Vinyl chloride			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9

Table 5
Summary of Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-48	SED-48-DUP	SED-49	SED-50	SED-51	SED-51	SED-52	SED-52	SED-53	SED-53	SED-54	SED-54	SED-55	SED-55	SED-56	SED-56-DUP	SED-56
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	0 - 6 in	6 - 12 in
				Date	11/26/2019	11/26/2019	11/26/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89,400	pCi/g	0.00 #	0.00 #	0.00 #	**0.910 ##**	0.00 #	**4.89 ##**	0.00 #	0.00 #	0.00 #	0.00 #	**1.51 ##**	0.00 #	**6.19 ##**	0.00 #	**2.53 ##**	0.00 #	0.00 #
	Uranium-233/234	13	3,310	pCi/g	**2.57**	**2.43**	**4.59**	**3.64**	**2.10**	**1.27**	**1.77**	**1.88**	**2.15**	**2.06**	**1.78**	**1.48**	**2.05**	**1.62**	**2.02**	**2.82**	**1.89**
	Uranium-235/236	8	39	pCi/g	**0.091 ##**	**0.0144 ##**	**0.215**	**0.104 ##**	**0.178 ##**	**0.0695 ##**	**0.308 ##**	**0.0494 ##**	**0.194**	**0.0708 ##**	**0.119 ##**	**0.120 ##**	0.00 #	**0.155**	**0.214**	**0.115 ##**	**0.0276 ##**
	Uranium-238	14	179	pCi/g	**1.98**	**1.62**	**2.11**	**1.86**	**1.42**	**1.15**	**1.72**	**1.45**	**1.45**	**2.34**	**1.36**	**1.87**	**1.74**	**1.62**	**1.40**	**2.11**	**1.72**
Chemical	Fluoride			mg/kg	**2.94**	**3.46**	**5.44**	**4.67**	**2.77 J**	**2.96**	**1.48 J**	**1.69 J**	**0.838 J**	**0.607 J**	**1.93 J**	**1.01 J**	< 1.88	< 1.76	< 1.89	< 1.96	**0.690 J**
	Nitrate as N			mg/kg	**0.63**	**0.70**	**0.58**	**0.53**	**0.72**	**0.51**	< 0.50	**0.61**	< 0.50	< 0.50	**0.63**	**0.68**	< 0.50	< 0.50	**0.52**	**0.74**	< 0.50
	Ammonia			mg/kg	**806**	**1080**	**209**	**750**	**692**	**401**	**465**	**271**	**387**	**196**	**854**	**536**	**321**	**223**	**449**	**325**	**244**
Metals	Antimony			ug/kg	< 5.01	< 5.68	< 7.62	< 6.52	< 5.8	< 5.66	< 4.58	< 4.27	< 3.46	< 31.3	< 7.44	< 5.3	< 3.66	< 3.04	< 3.6	< 3.47	< 3.26
VOCs	1,1-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	2-Butanone			ug/kg	**39**	**23**	< 28	**190**	**43**	< 27	**31**	< 26	< 22	< 21	**42**	< 25	< 19	< 20	< 21	< 19	< 14
	Acetone			ug/kg	**220**	**280**	**300**	**370**	**330**	**180**	**100**	< 26	< 22	**170**	**330**	**39**	< 19	**200**	**220**	**23**	< 14
	cis-1,2-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	Tetrachloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	Toluene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	**8.7**	< 6.7	**10**	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	trans-1,2-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	Trichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
	Vinyl chloride			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5

Notes:

RUSL - Residential Use Screening Level (NUREG 1757, Appendix H)
IUSL - Industrial Use Screening Level (NUREG 1757, Appendix H)
DUP - field duplicate sample
*** - Sludge sample collected from the Sanitary Lagoon**
**** - Sludge sample collected from the East Lagoon**
 # - value is reported as a negative number
- value is below minimum detectable concentration
pCi/g - picocuires per gram
mg/kg - milligrams per kilogram
ug/kg - micrograms per kilogram
Bold concentrations indicate detections
Concentrations in shaded cells exceed their RUSL/IUSL
NA - not analyzed
VOCs - volatile organic compounds

Table 6
Soil Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Sample ID	Sample Depth (inches bgs)	Collection Date	Result (pCi/g)
		Residential Use Screening Level	19
		Industrial Use Screening Level	89,400
SS-1	0-1	8/15/19	**0.171 U**
SS-1	1-3	8/15/19	**4.39 U**
SS-1	3-5	8/15/19	0.00 U
SS-1	5-7	8/15/19	0.00 U
SS-2	0-1	8/14/19	0.00 U
SS-2	1-3	8/14/19	**9.60 U**
SS-2	3-5	8/14/19	**4.78 U**
SS-2	5-7	8/14/19	**4.02 U**
SS-3	0-1	8/14/19	**12.9 U**
SS-3	1-3	8/14/19	**4.83 U**
SS-3	3-5	8/14/19	0.00 U
SS-3	5-7	8/14/19	**3.12 U**
SS-3-DUP	5-7	8/14/19	**1.35 U**
SS-4	0-1	8/14/19	**2.35 U**
SS-4	1-3	8/14/19	**16.1 U**
SS-4	3-5	8/14/19	**7.72 U**
SS-4	5-7	8/14/19	0.00 U
SS-5	0-1	8/14/19	**0.637 U**
SS-5	1-3	8/14/19	0.00 U
SS-5	3-5	8/14/19	**4.46 U**
SS-5	5-7	8/14/19	**0.843 U**
SS-6	0-1	8/14/19	**7.58 U**
SS-6	1-3	8/14/19	0.00 U
SS-6	3-5	8/14/19	0.00 U
SS-6	5-7	8/14/19	0.00 U
SS-7	0-1	8/13/19	**8.60 U**
SS-7	1-3	8/13/19	0.00 U
SS-7	3-5	8/13/19	0.00 U
SS-7	5-7	8/13/19	0.00 U
SS-8	0-1	8/13/19	0.00 U
SS-8	1-3	8/13/19	**5.52 U**
SS-8	3-5	8/13/19	**1.09 U**
SS-8	5-7	8/13/19	0.00 U
SS-9	0-1	8/13/19	0.00 U
SS-9	1-3	8/13/19	0.00 U
SS-9	3-5	8/13/19	**0.572 U**
SS-9	5-7	8/13/19	**18.1 U**
SS-10	0-1	8/13/19	0.00 U
SS-10	1-3	8/13/19	0.00 U
SS-10	3-5	8/13/19	0.00 U
SS-10	5-7	8/13/19	0.00 U
SS-11	0-1	8/12/19	**9.64 U**
SS-11	1-3	8/12/19	0.00 U
SS-11	3-5	8/12/19	**14.3 U**
SS-11	5-7	8/12/19	**17.3 U**

Table 6
Soil Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Sample ID	Sample Depth (inches bgs)	Collection Date	Result (pCi/g)
		Residential Use Screening Level	19
		Industrial Use Screening Level	89,400
SS-12	0-1	8/12/19	**8.88 U**
SS-12	1-3	8/12/19	**8.02 U**
SS-12	3-5	8/12/19	**10.0 U**
SS-12	5-7	8/12/19	**6.76 U**
SS-13	0-1	8/12/19	**5.42 U**
SS-13	1-3	8/12/19	**11.0 U**
SS-13	3-5	8/12/19	**2.05 U**
SS-13	5-7	8/12/19	**3.31 U**
SS-13-DUP	5-7	8/12/19	**21.6 U**
SS-14	0-1	8/13/19	**4.80 U**
SS-14	1-3	8/13/19	**1.57 U**
SS-14	3-5	8/13/19	**4.99 U**
SS-14	5-7	8/13/19	0.00 U
SS-14-DUP	5-7	8/13/19	**9.42 U**

Notes:
bgs - below ground surface
pCi/g - picocuries per gram
U - value is below minimum detectable concentration
0.00 - value is reported as a negative number
DUP - field duplicate sample
Concentrations in shaded cells exceed their RUSL/IUSL

Table 7
Summary of Hydraulic Characteristic Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Well Number	Test Type	Hydraulic Conductivity (K)		Average Hydraulic Cond. (K)	
		cm/sec	ft/day	cm/sec	ft/day
W-13R*	F	3.46E-03	9.80	3.51E-03	9.95
	R	3.56E-03	10.09		
W-15*	F	1.96E-03	5.56	1.96E-03	5.55
	R	1.95E-03	5.53		
W-39*	F	1.17E-03	3.33	1.08E-03	3.06
	R	9.80E-04	2.78		
W-48*	F	2.12E-04	0.60	1.97E-04	0.56
	R	1.83E-04	0.52		
W-60*	F	4.71E-02	133.70	4.41E-02	125.20
	R	4.11E-02	116.70		
W-61*	F	1.79E-03	5.09	1.81E-03	5.12
	R	1.82E-03	5.15		
W-94	F	1.65E-03	4.67	1.87E-03	5.31
	R	2.09E-03	5.94		
W-95	F	2.11E-02	59.84	1.51E-02	42.95
	R	9.19E-03	26.05		
W-96	F	1.45E-02	41.19	2.07E-02	58.58
	R	2.68E-02	75.97		
W-97	F	2.75E-02	78.00	2.84E-02	80.45
	R	2.92E-02	82.89		
Average Conductivity - Floodplain Aquifer				**1.65E-02**	**46.82**

Notes:
F - Falling Head Test
R - Rising Head Test
cm/sec - centimeters per second
ft/day - feet per day
* - slug tests conducted during a previous phase of work in upper and lower surficial aquifer wells but not previously reported

Table 8
Summary of Private Water Supply Well Survey Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Map ID	Address/Designation	Latitude	Longitude	Richland County Tax Map ID #
1	150 Hopkins Park Road	-	-	R21400-01-11
2	7028 Lower Richland Blvd	-	-	R21400-01-27
3	7040 Lower Richland Blvd	-	-	R21400-01-39
4	7048 Lower Richland Blvd	-	-	R21400-01-16
5	7064 Lower Richland Blvd	-	-	R21400-01-30
6	7071 Lower Richland Blvd	-	-	R21400-02-65
7	7072 Lower Richland Blvd	-	-	R21400-01-17
8	7131 Lower Richland Blvd	-	-	R21400-02-61
9	7152 Lower Richland Blvd	-	-	R21400-01-24
10	5943 Bluff Road	-	-	R21400-03-09
11	6001 Bluff Road	-	-	R21400-03-02
12	6041 Bluff Road	-	-	R21400-03-05
13	6045 Bluff Road	-	-	R21400-03-06
14	1012 Coley Road	-	-	R18705-01-05
15	1109 Coley Road	-	-	R18800-02-18B

Table 8
Summary of Private Water Supply Well Survey Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

Map ID	Address/Designation	Latitude	Longitude	Richland County Tax Map ID #
16	1113 Coley Road	-	-	R18700-03-04
17	1122 Coley Road	-	-	R18705-01-08
18	1243 Coley Road	-	-	R18706-02-02
19	1249 Coley Road	-	-	R18706-02-03
20	1249 Coley Road	-	-	R18706-02-04
21	109 Nicie Byrd Way	-	-	R18800-02-19
22	117 Nicie Byrd Way	-	-	R18800-02-50
23	125 Nicie Byrd Way	-	-	R18800-02-49
24	133 Nicie Byrd Way	-	-	R18800-02-48
25	100 Pincushion Road	-	-	R18700-04-09
26	WSW-01	33.8892625	-80.93917313	R15900-01-06
27	IWSW-01	33.88717942	-80.92577294	R15900-01-06
28	IWSW-02	33.88875406	-80.92383756	R15900-01-06
31	WSW-02	33.85836279	-80.9297476	R18500-01-02
29	WSW-03	33.87559353	-80.94351638	R15700-01-01
30	WSW-04	33.84324651	-80.93413056	R15600-01-02

Figures

Legend

Locations

- Property Line
- SCRDI Bluff Road (Superfund Site)
- Topographic Quadrangle Boundary

ID	Topographic Quadrangle Name
1	Southwest Columbia
2	Gaston
3	Fort Jackson South
4	Saylors Lake
5	Congaree
6	Gadsden

0 2,000 4,000 Feet

1:48,000

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

Data Source: Esri/USGS

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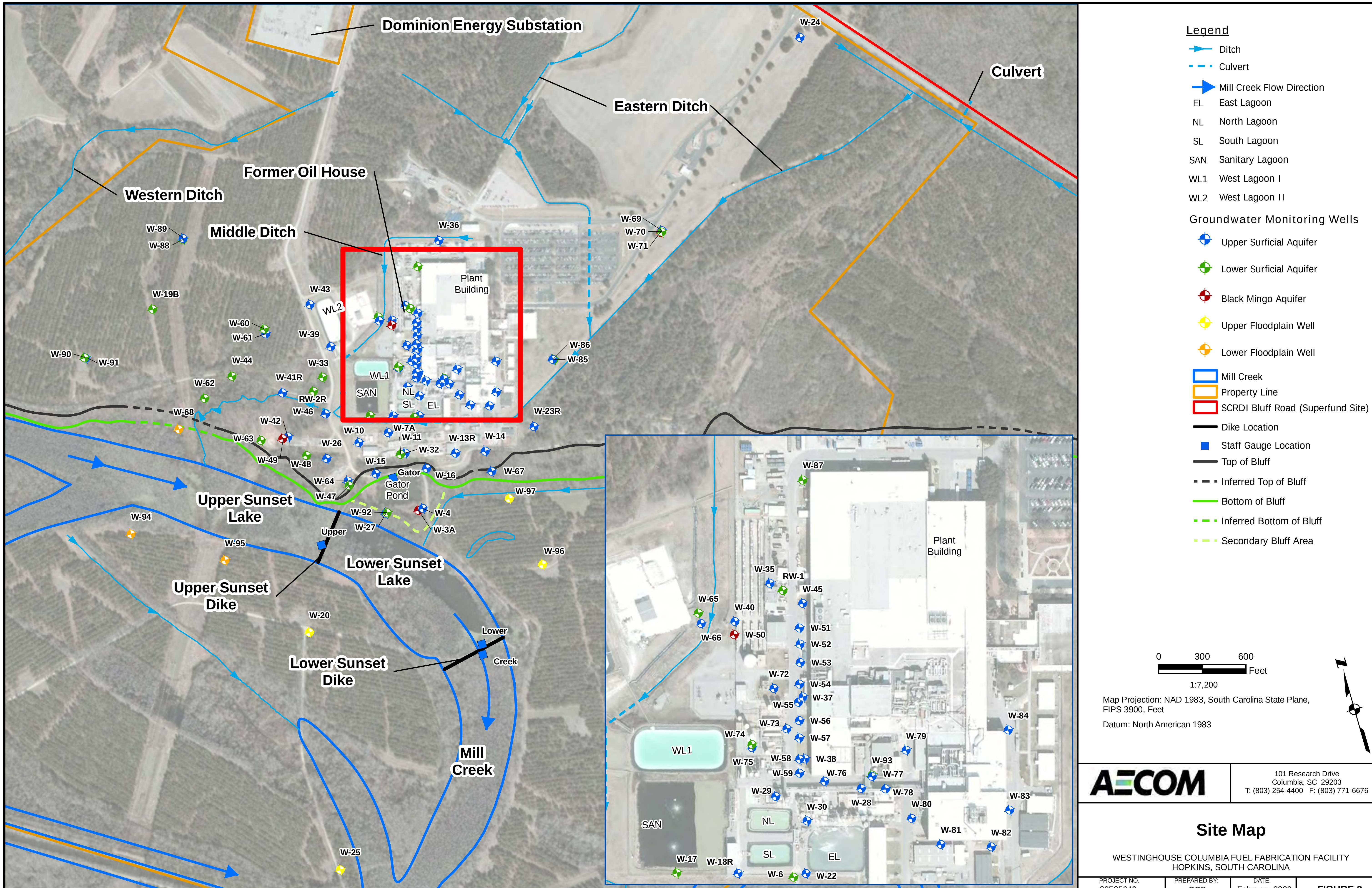
Site Location Map

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 1

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_1_sitelocationmap.mxd



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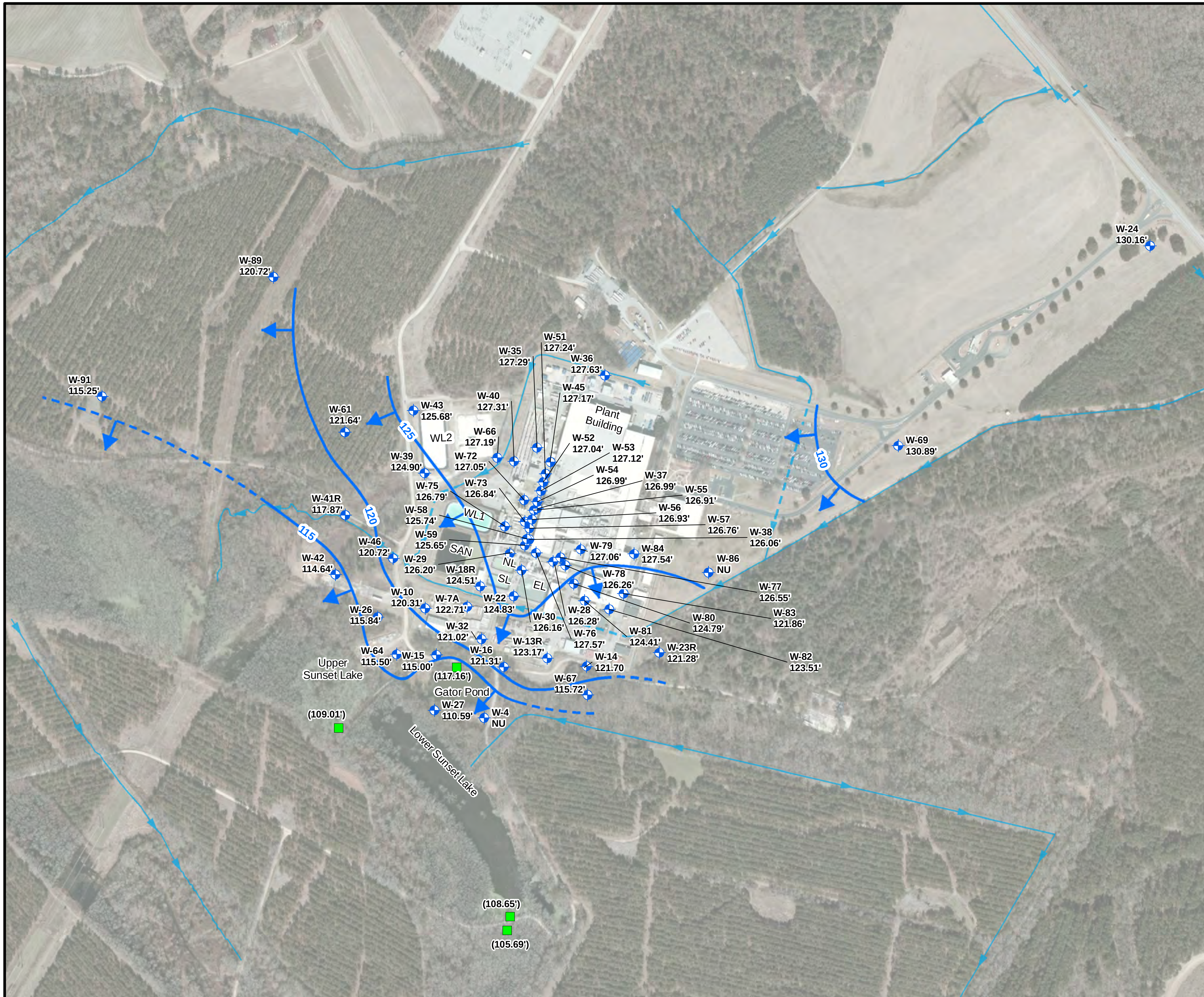

Legend

- Upper Surficial Aquifer Monitoring Well Location
- Staff Gauge
- 130.89' Groundwater Elevation
- (117.16') Surface Water Elevation
- Potentiometric Line (C.I. = 5 feet, dashed where inferred)
- Direction of Groundwater Flow
- Ditch
- Culvert

NU	Not Used
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected on October 14, 2019

N

0 250 500 Feet

1:6,000

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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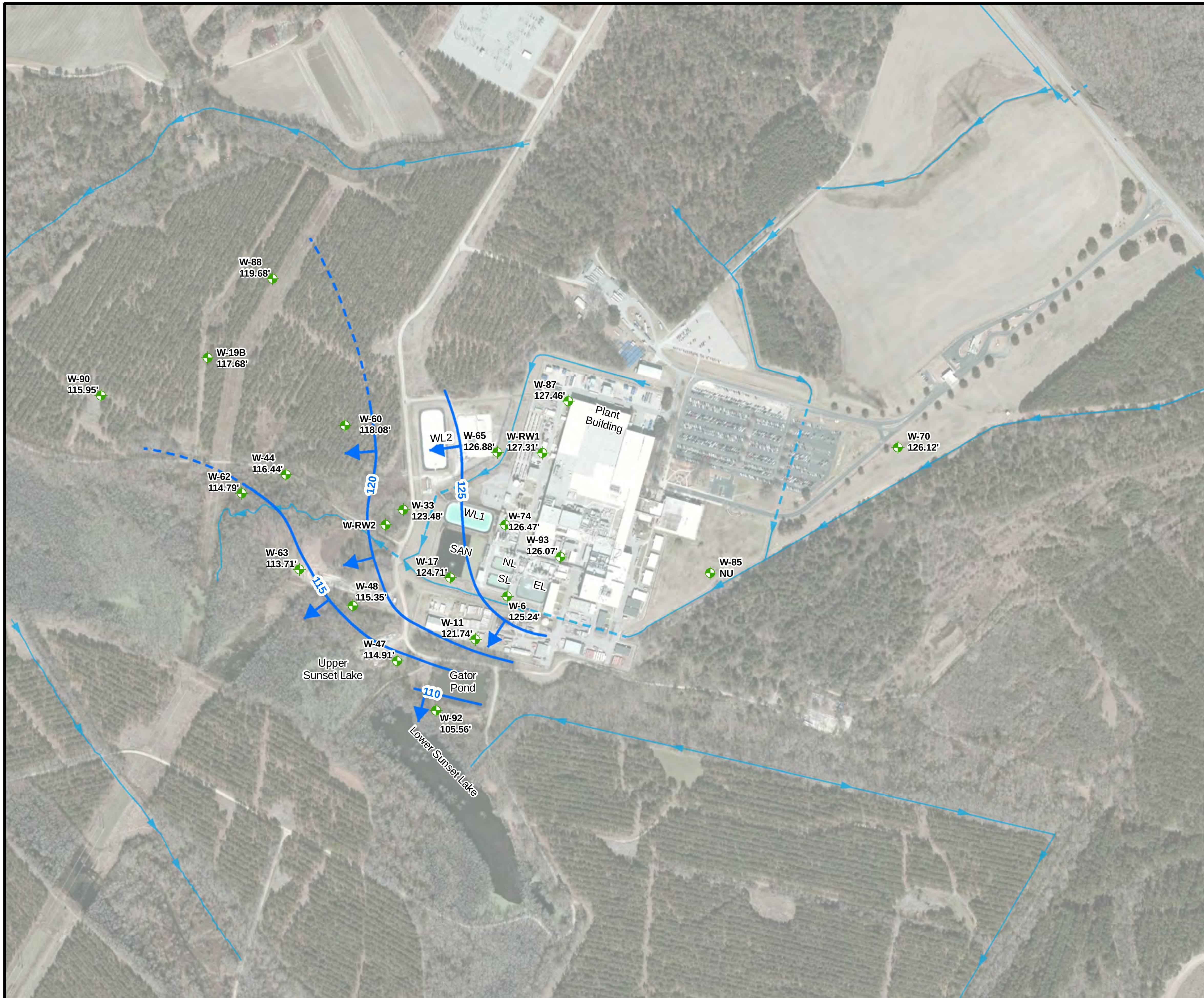
Potentiometric Map - Upper Surficial Aquifer

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 3

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_3_UpperSurfical_Pot-Oct2019.mxd



Legend

Lower Surficial Aquifer Monitoring Well Location

126.12' Groundwater Elevation

Potentiometric Line (C.I. = 5 feet, dashed where inferred)

Direction of Groundwater Flow

Ditch

Culvert

NU Not Used

EL East Lagoon

NL North Lagoon

SL South Lagoon

SAN Sanitary Lagoon

WL1 West Lagoon 1

WL2 West Lagoon 2

Note:

Based upon data collected on October 14, 2019

0 250 500 Feet

1:6,000

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Potentiometric Map - Lower Surficial Aquifer

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 4

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_4_LowerSurfical_Pot-Oct2019.mxd

Legend

- Black Mingo Aquifer Monitoring Well Location
- 114.74' Groundwater Elevation
- Potentiometric Line (C.I. = 2 feet)
- Direction of Groundwater Flow
- Ditch
- Culvert

114.74'	Groundwater Elevation
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected on October 14, 2019

0 250 500 Feet

1:6,000

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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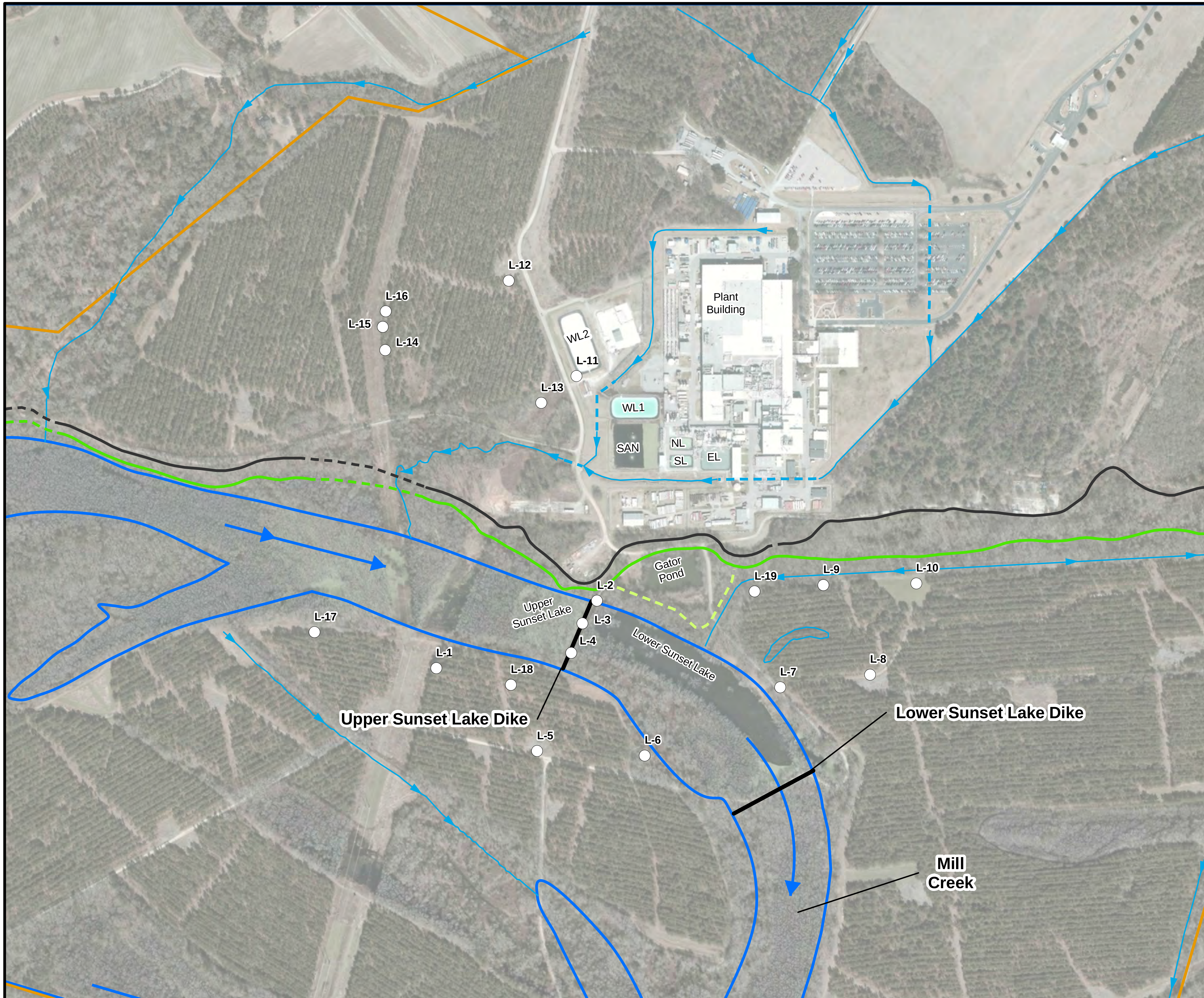
Potentiometric Map - Black Mingo Aquifer

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 5

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_5_BlackMingo_Pot-Oct2019.mxd



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Lithologic Boring Locations

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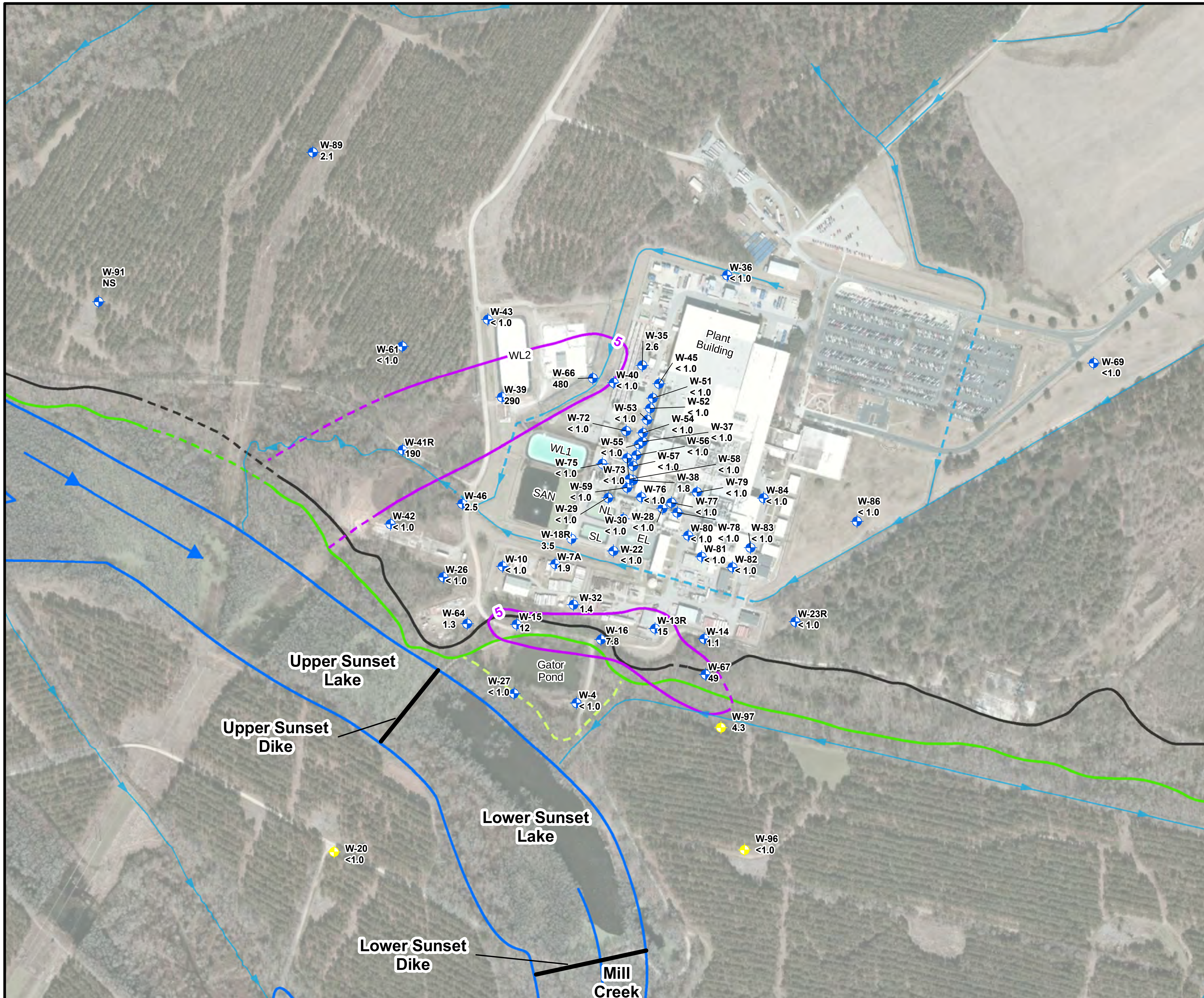
PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 6

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_6_LithologicBoringLocations.mxd



Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_7_PCE_UpperSurf_Oct2019.mxd

Legend

- Upper Surficial Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek
- Mill Creek Flow Direction
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- PCE Isoconcentration Contours (µg/L)

480	PCE Concentration in µg/L
NS	Not Sampled
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

0 200 400
Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of PCE – Upper Surficial Aquifer

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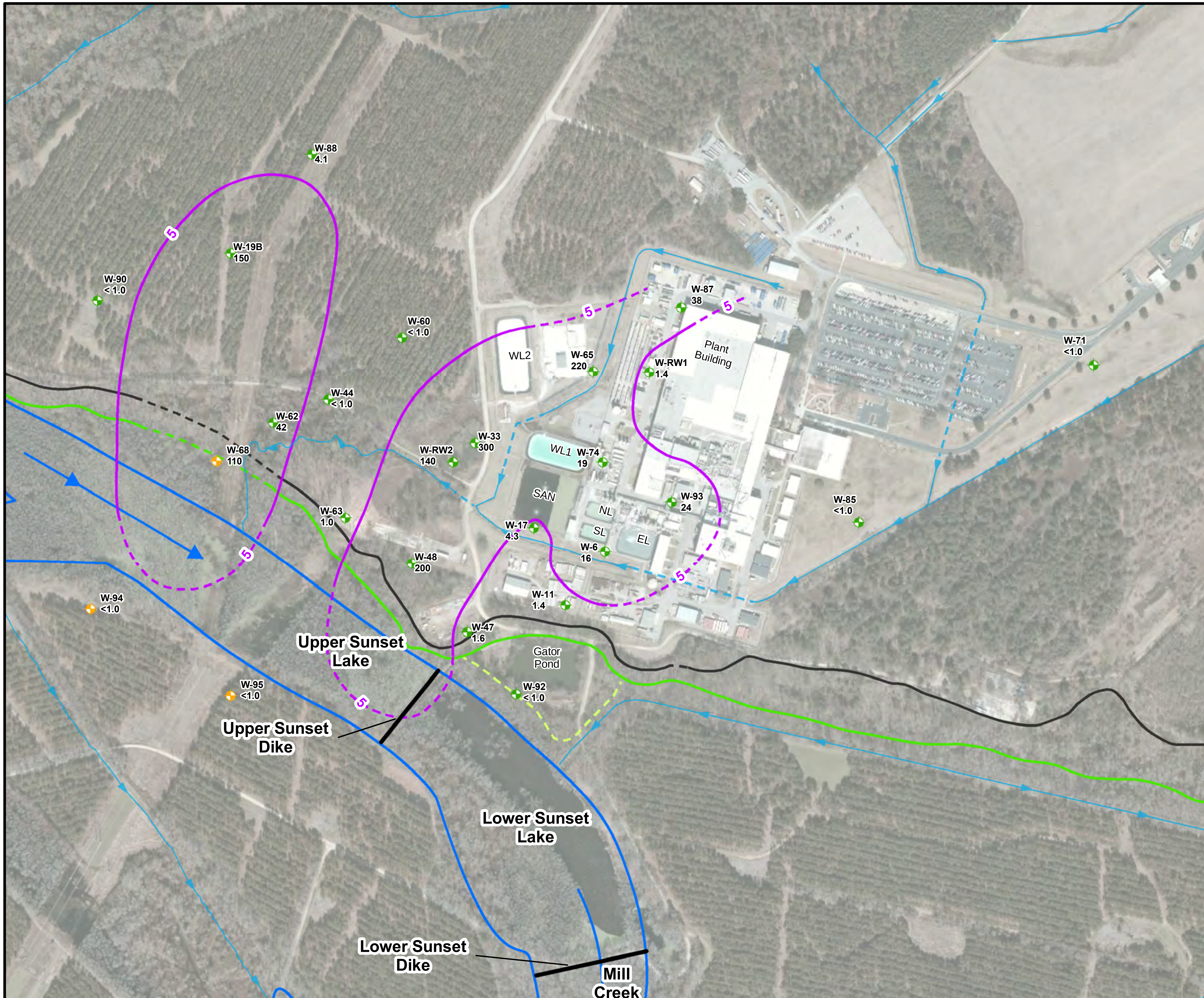
PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 7



Legend

- Lower Surficial Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- PCE Isoconcentration Contours (µg/L)

300	PCE Concentration in µg/L
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of PCE – Lower Surficial Aquifer

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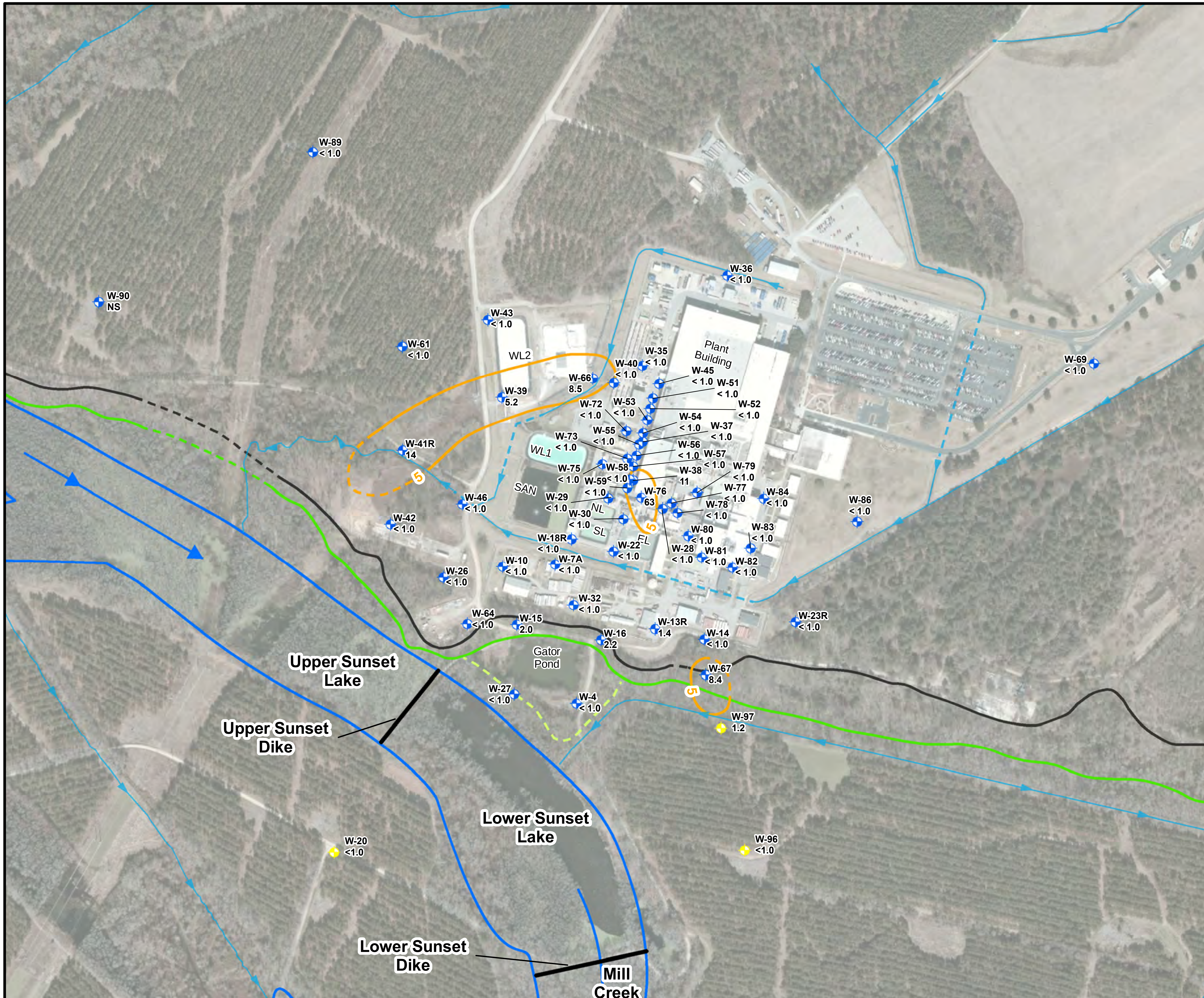
PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	**FIGURE 8**

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_8_PCE_LowerSurf_Oct2019.mxd



Legend

- Upper Surficial Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- TCE Isoconcentration Contours (µg/L)

63	TCE Concentration in µg/L
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

N

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of TCE – Upper Surficial Aquifer

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PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 9

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_9_TCE_UpperSurf_Oct2019.mxd

Legend

- Lower Surficial Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- TCE Isoconcentration Contours (µg/L)

84	TCE Concentration in µg/L
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

N

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of TCE – Lower Surficial Aquifer

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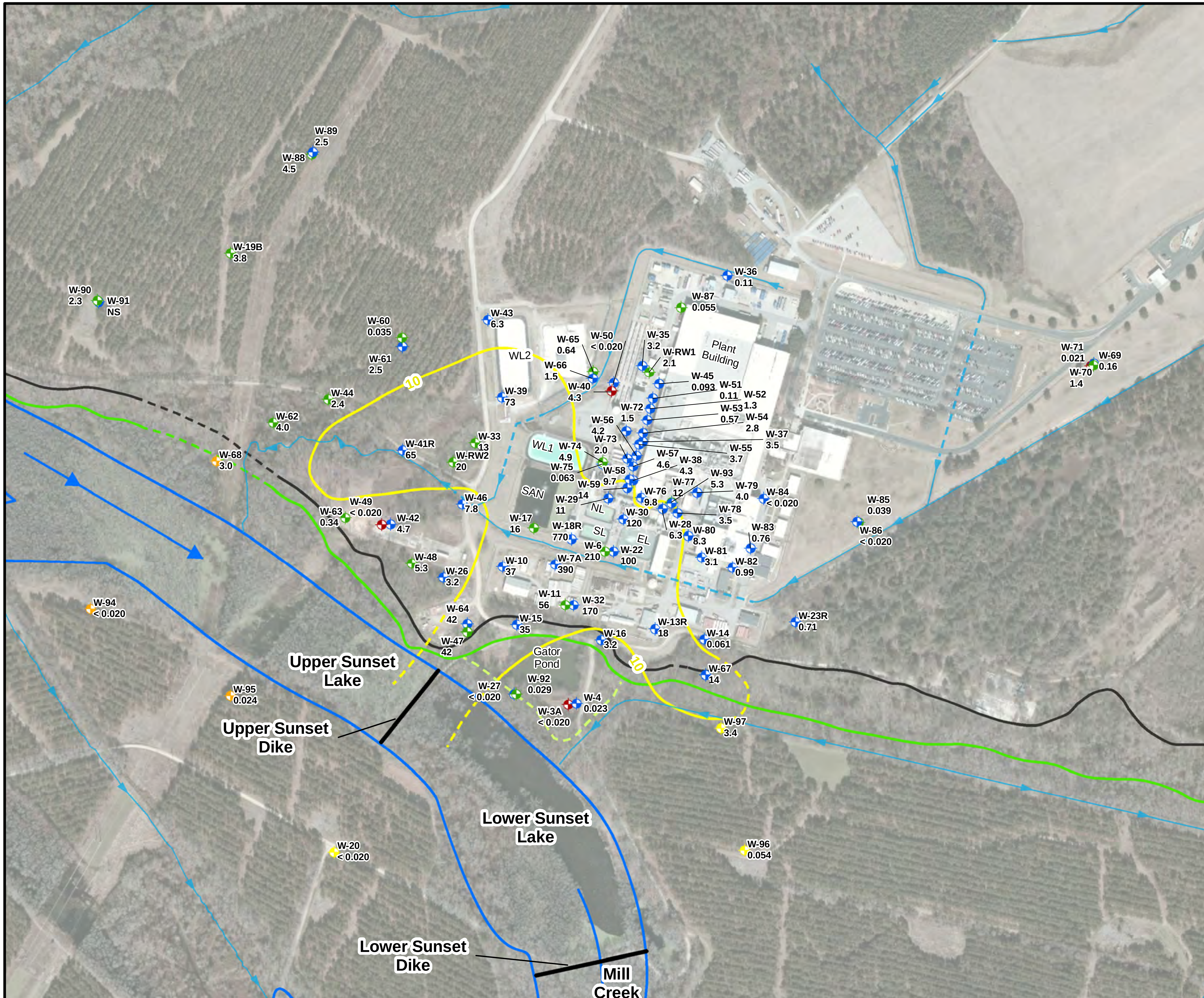
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 10

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_10_TCE_LowerSurf_Oct2019.mxd



Legend

- Upper Surficial Aquifer Monitoring Well Location
- Lower Surficial Aquifer Monitoring Well Location
- Black Mingo Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- Nitrate Isoconcentration Contours (mg/L)

770	Nitrate Concentration in mg/L
NS	Not Sampled
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

N

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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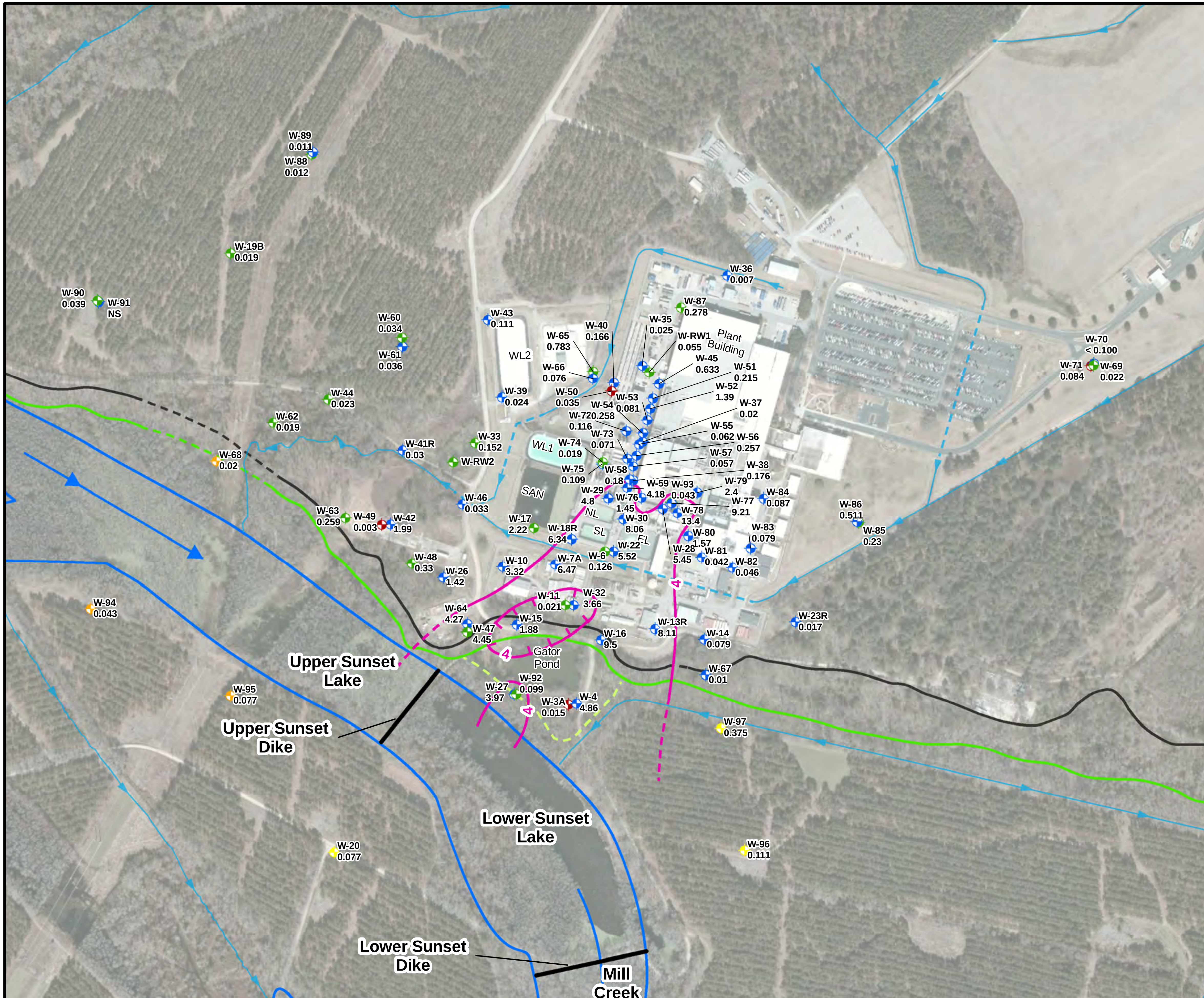
Extent of Nitrate in Groundwater

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 11

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_11_Nitrate_Oct2019.mxd



Legend

- Upper Surficial Aquifer Monitoring Well Location
- Lower Surficial Aquifer Monitoring Well Location
- Black Mingo Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- Fluoride Isoconcentration Contours (mg/L)
- 13.4 Fluoride Concentration in mg/L
- NS Not Sampled
- EL East Lagoon
- NL North Lagoon
- SL South Lagoon
- SAN Sanitary Lagoon
- WL1 West Lagoon 1
- WL2 West Lagoon 2

Note:

Based upon data collected in October 2019

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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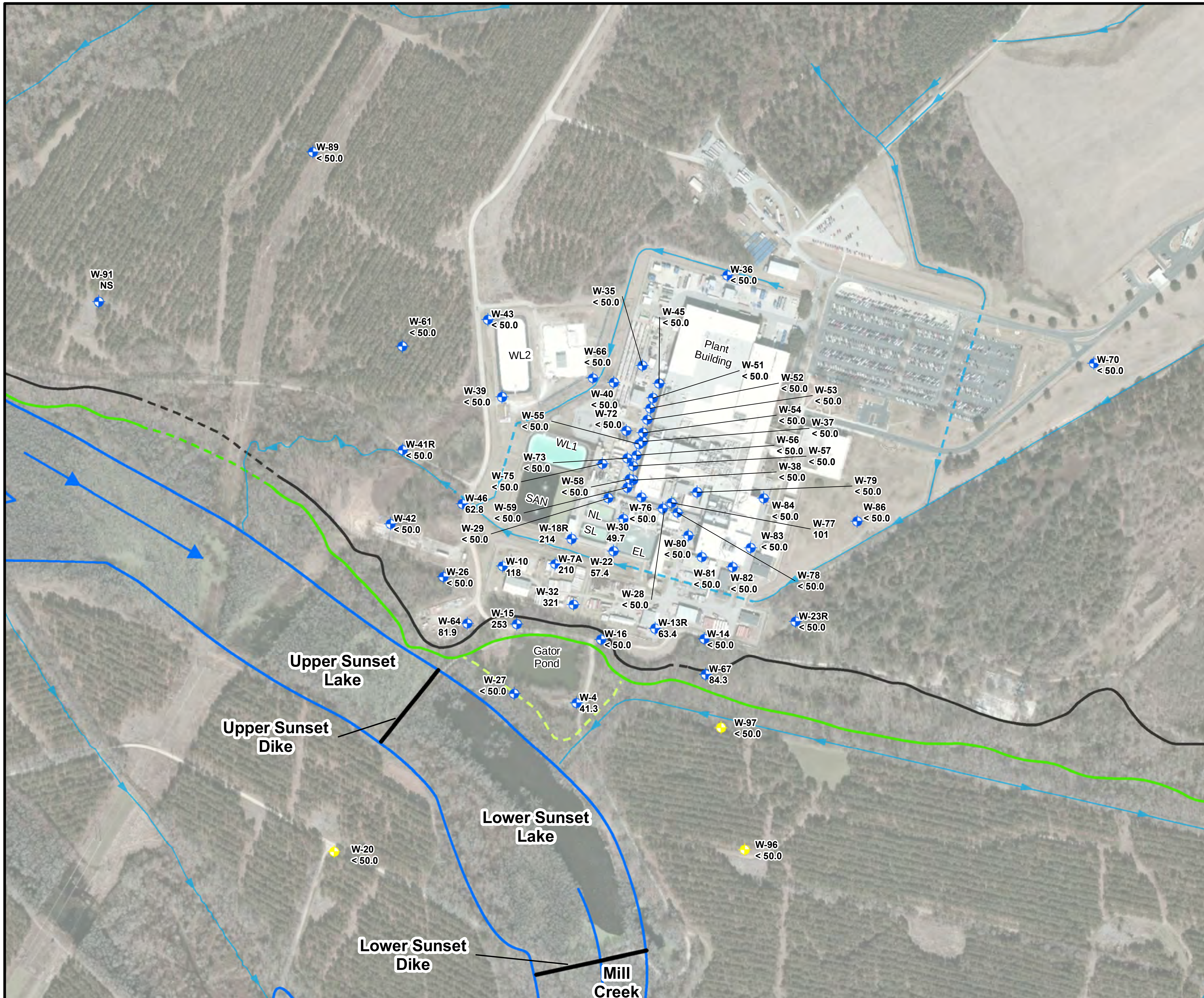
Extent of Fluoride in Groundwater

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 12

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_12_Fluoride_Oct2019.mxd



Legend

- Upper Surficial Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area

321	Technetium-99 Concentration in pCi/L
NS	Not Sampled
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of Technetium-99 – Upper Surficial Aquifer

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 13

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_13_Technetium_Oct2019_UpperSurficial.mxd

Legend

- Lower Surficial Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- Technetium 99 Isoconcentration Contours (pCi/L)

3420	Technetium-99 Concentration in pCi/L
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

N

0 200 400
Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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Extent of Technetium-99 – Lower Surficial Aquifer

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 14

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_14_Technetium_Oct2019_LowerSurficial.mxd

Legend

- Upper Surficial Aquifer Monitoring Well Location
- Lower Surficial Aquifer Monitoring Well Location
- Black Mingo Aquifer Monitoring Well Location
- Upper Floodplain Aquifer Monitoring Well Location
- Lower Floodplain Aquifer Monitoring Well Location
- Ditch
- Culvert
- Dike Location
- Mill Creek Flow Direction
- Mill Creek
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- Uranium Isoconcentration Contours (µg/L)

247	Total Uranium in µg/L
NS	Not Sampled
EL	East Lagoon
NL	North Lagoon
SL	South Lagoon
SAN	Sanitary Lagoon
WL1	West Lagoon 1
WL2	West Lagoon 2

Note:

Based upon data collected in October 2019

0 200 400 Feet

1:4,800

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

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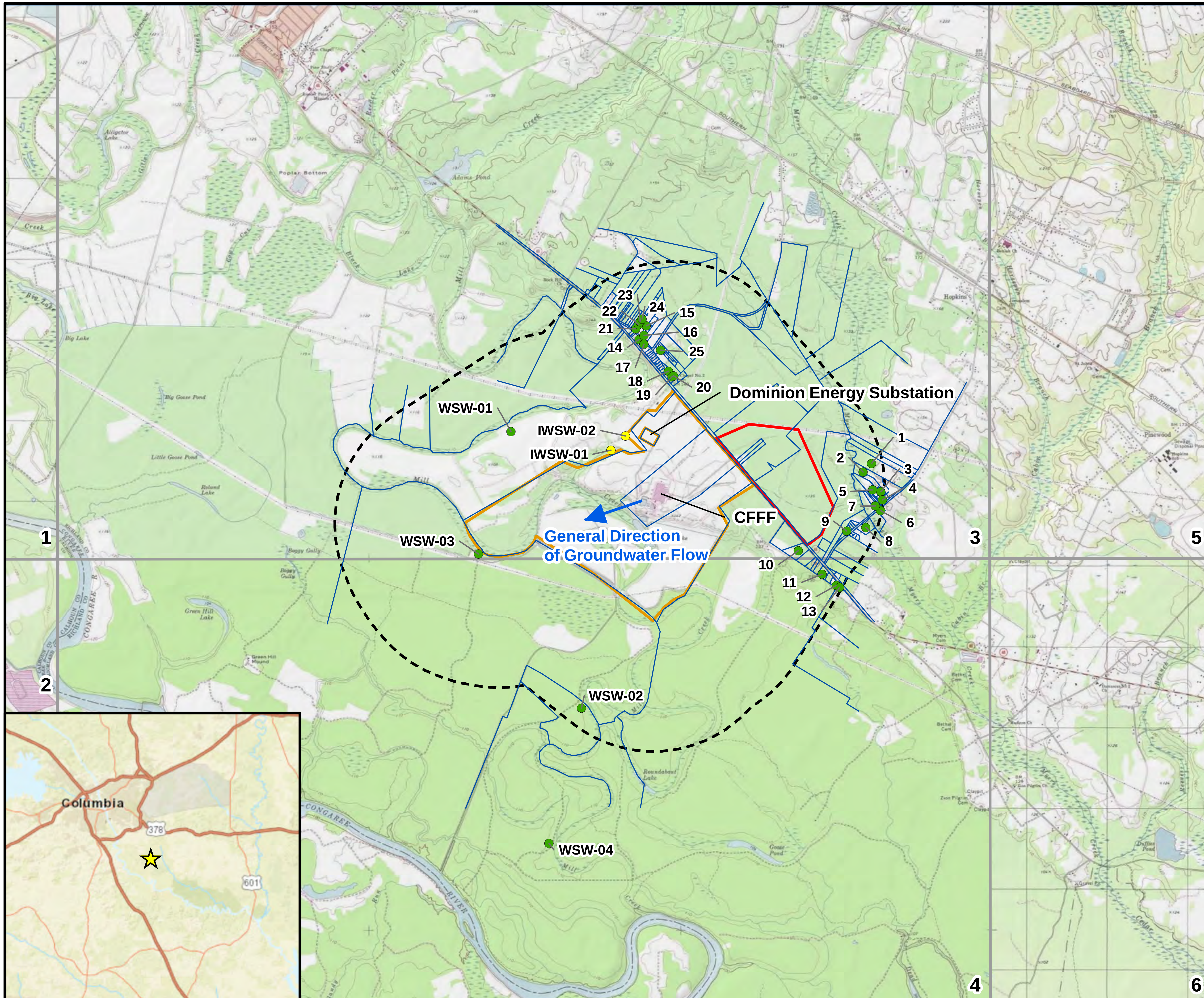
Extent of Uranium in Groundwater

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	LJG	February 2020	FIGURE 15

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_15_Uranium_Oct2019.mxd



Legend

- Inactive Private Wells
- Private Wells
- Parcel Lines
- 1 Mile Buffer of Facility Property Boundary
- Property Line
- SCRDI Bluff Road (Superfund Site)
- Topographic Quadrangle Boundary

ID	Topographic Quadrangle Name
1	Southwest Columbia
2	Gaston
3	Fort Jackson South
4	Saylors Lake
5	Congaree
6	Gadsden

0 2,000 4,000 Feet

1:48,000

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

Data Source: Esri/USGS

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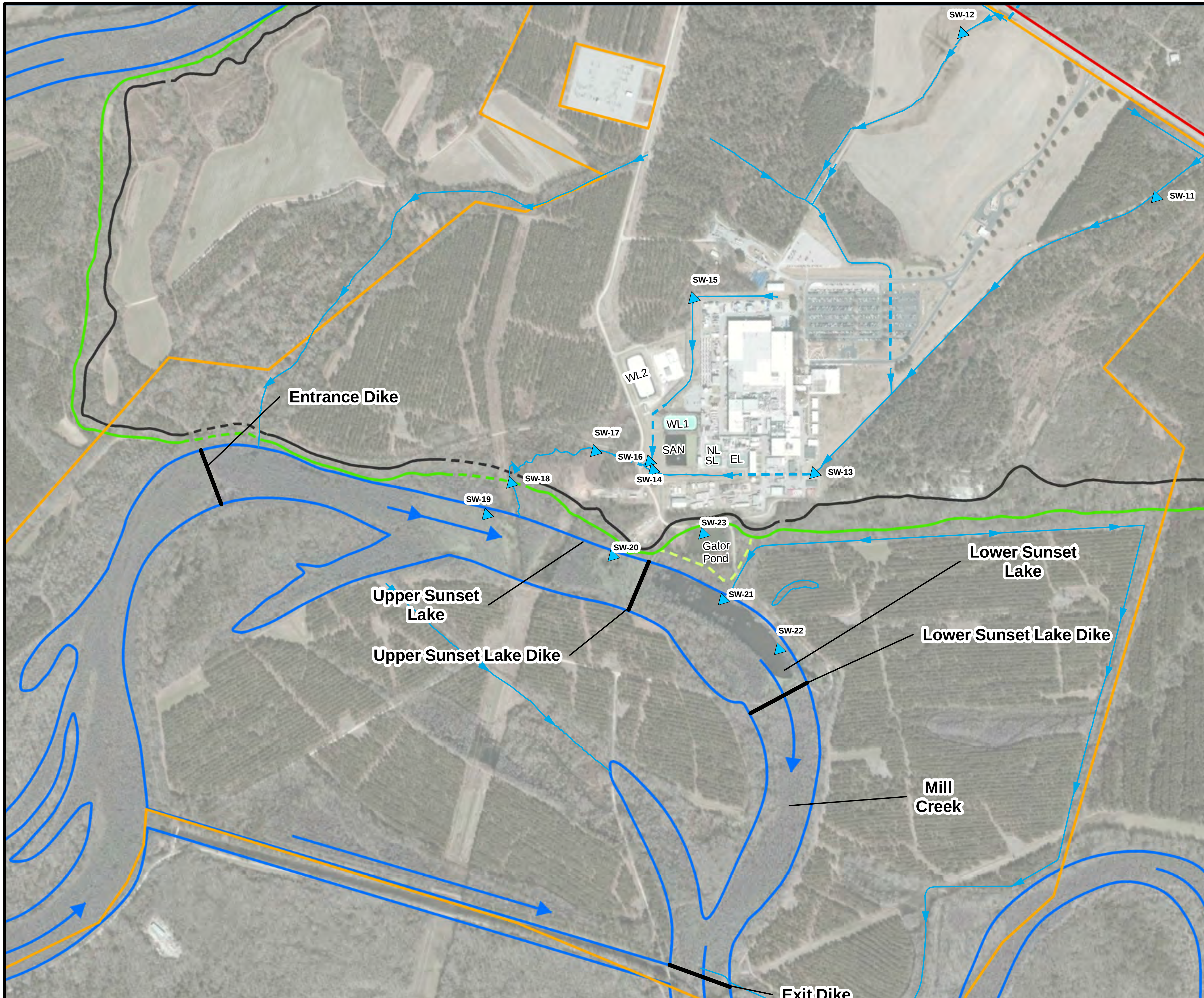
Private Water Supply Well Locations

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 16

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_16_PrivateWaterSupplyWells.mxd



Legend

- Surface Water Sample Location
- Ditch
- Culvert
- Mill Creek Flow Direction
- Dike Location
- Mill Creek
- Property Line
- Top of Bluff
- Inferred Top of Bluff
- Bottom of Bluff
- Inferred Bottom of Bluff
- Secondary Bluff Area
- EL East Lagoon
- NL North Lagoon
- SL South Lagoon
- SAN Sanitary Lagoon
- WL1 West Lagoon 1
- WL2 West Lagoon 2

0 350 700 Feet

1:8,400

Map Projection: NAD 1983, South Carolina State Plane, FIPS 3900, Feet

Datum: North American 1983

AECOM

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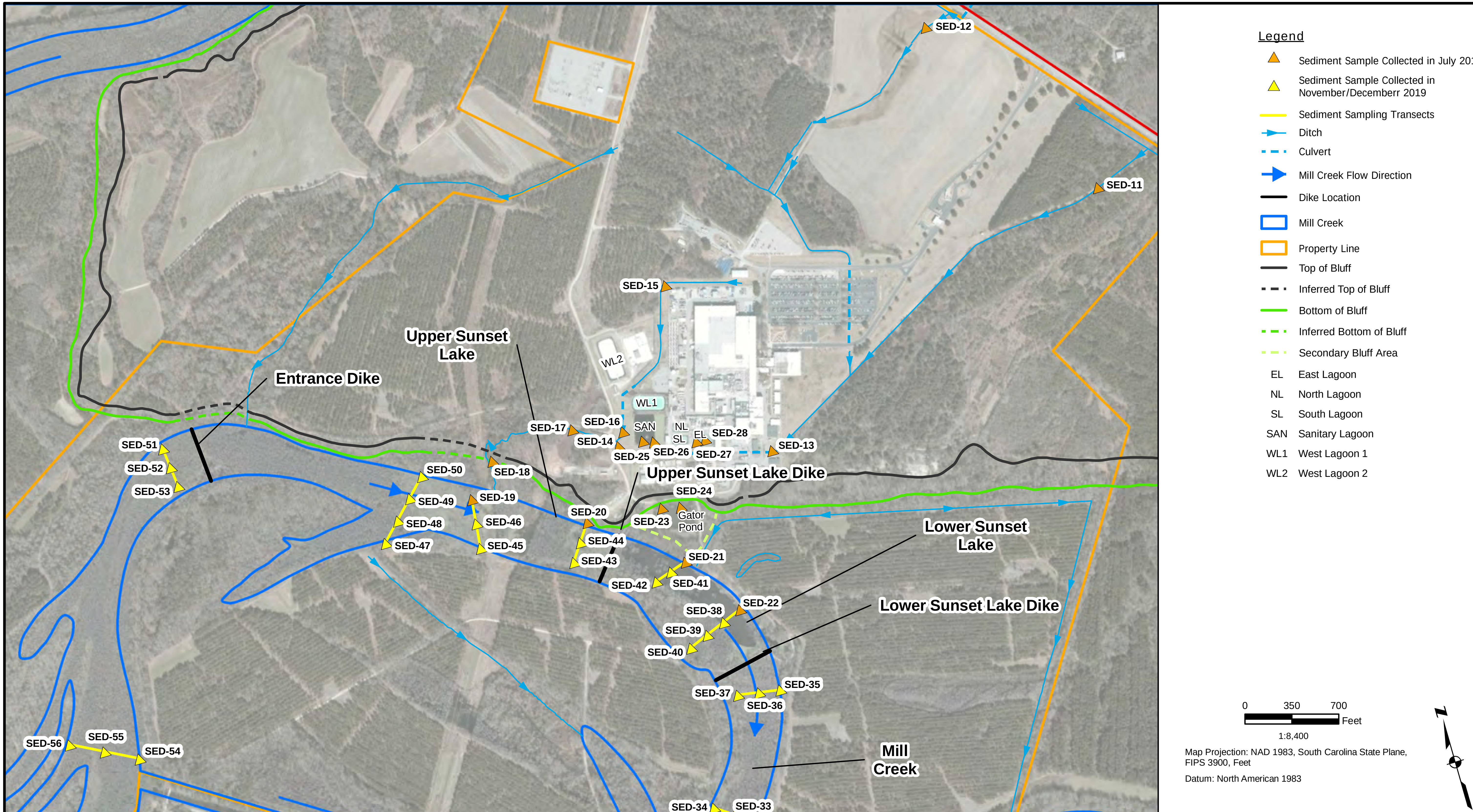
Surface Water Sample Locations

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 17

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_17_SurfaceWaterSamplingLocations.mxd



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Sediment Sample Locations

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 18

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_18_SedimentSamplingLocations.mxd

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Technetium-99 Soil Sample Locations

WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY
HOPKINS, SOUTH CAROLINA

PROJECT NO.	PREPARED BY:	DATE:	
60595649	CCS	February 2020	FIGURE 19

Path: M:\EnvDataViz\Westinghouse\mxd\2020_Interim_RI_Data_Summary_Rpt\fig_19_SoilSamplingLocations.mxd

Appendix A
Laboratory Analytical Data Tables

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-RW1	W-RW2	W-3A	W-4	W-6	W-7A	W-10	W-10-DUP	W-11	W-13R	W-14	W-15	W-16	W-17	W-18R	W-19B	W-20	W-22	W-23R	W-24	W-25	W-26	W-27	W-28	W-29
			Date	10/3/2019	10/11/2019	10/10/2019	10/10/2019	10/7/2019	10/9/2019	10/9/2019	10/9/2019	10/8/2019	10/8/2019	10/18/2019	10/21/2019	10/21/2019	10/21/2019	10/7/2019	10/21/2019	10/15/2019	10/7/2019	10/18/2019	10/11/2019	10/16/2019	10/14/2019	10/10/2019	10/7/2019	10/7/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	9.09	6.35	3.19	< 5.00	7.82	< 5.00	4.27	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	10.1	< 5.00	< 5.00	< 5.00	< 5.00
Radiological	Beta particles	50**	pCi/L	3.98	11.9	< 5.00	19.4	1370	114	81.3	76.2	2450	53.2	35.6	174	10.6	538	150	< 5.00	< 5.00	29.6	< 5.00	< 5.00	7.27	12.5	5.10	8.26	7.67
Radiological	Tritium		pCi/L	NA	< 700	NA	NA	NA	< 700	< 700	< 700	NA	< 700	NA	< 700	< 700	NA	< 700	NA	NA	< 700	NA	< 700	NA	< 700	NA	NA	< 700
Radiological	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	41.3	2440	210	118	121	3420	63.4	< 50.0	253	< 50.0	820	214	< 50.0	< 50.0	57.4	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Radiological	Uranium-233/234		pCi/L	< 0.500	< 0.500	< 0.500	0.313	0.372	0.409	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	1.53	< 0.500	< 0.500	0.905	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.672	1.20
Radiological	Uranium-235/236		pCi/L	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.219	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.266	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.198	< 0.500	< 0.500
Radiological	Uranium-238		pCi/L	< 0.500	< 0.500	< 0.500	0.392	< 0.500	0.259	< 0.500	0.212	< 0.500	0.221	< 0.500	< 0.500	< 0.500	< 0.500	1.17	< 0.500	< 0.500	0.322	< 0.500	< 0.500	0.269	< 0.500	< 0.500	< 0.500	0.972
Radiological	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Radiological	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	0.035 J	< 0.070	< 0.070	0.0177 J	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	0.026 J
Radiological	Uranium-238		ug/L	0.0815 J	0.0743 J	< 0.200	0.146 J	0.232	0.698	0.083 J	0.114 J	< 0.200	0.139 J	0.368	< 0.200	< 0.200	0.0855 J	4.06	< 0.200	< 0.200	0.854	< 0.200	< 0.200	0.295	< 0.200	< 0.200	0.429	2.03
Chemical	Total Uranium Isotopes	30	mg/L	0.0815 J	0.0743 J	< 0.200	0.146 J	0.232	0.698	0.083 J	0.114 J	< 0.200	0.139 J	0.368	< 0.200	< 0.200	0.0855 J	4.1	< 0.200	< 0.200	0.872	< 0.200	< 0.200	0.295	< 0.200	< 0.200	0.429	2.05
Chemical	Fluoride	4	mg/L	0.055	0.099	0.015	4.86	0.126	6.47	3.32	3.25	0.021	8.11	0.079	1.88	9.5	2.22	6.34	0.019	0.077	5.52	0.017	0.025	0.126	1.42	3.97	5.45	4.8
Chemical	Nitrate as N	10	mg/L	2.1	20	< 0.020	0.023	210	390	37	37	56	18	0.061	35	3.2	16	770	3.8	< 0.020	100	0.71	< 0.020	0.067	3.2	< 0.020	6.3	11
Metals	Ammonia as N		ug/L	0.0129	0.0581	0.0256	0.404	134	48.5	6.46	6.62	4.09	31.5	4.26	12.6	13.3	5.79	126	0.0146	0.0632	61.8	0.0154	0.0283	1.91	1.75	6.29	0.884	22.4
Metals	Aluminum		ug/L	147 J	120 J	< 200	105 J	< 200	< 200	559	551	< 200	831	< 200	75 J	827	< 200	< 200	< 200	< 200	1610	< 200	< 200	486	326	< 200	981	< 200
Metals	Antimony	6	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	4.52 J	3.64 J	< 20.0	< 20.0	< 20.0
Metals	Arsenic	10	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	5.32 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Barium	2000	ug/L	48.2	106	5.92	99.1	496	595	191	186	658	93.3	799	304	135	164	713	84.8	181	46.3	53.8	12.1	94	197	220	44.1	158
Metals	Beryllium	4	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.89 J	< 5.00	< 5.00	1.28 J	< 5.00	< 5.00	< 5.00	< 5.00	1.76 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Cadmium	5	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	3.73 J	< 5.00	1.94 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Calcium		ug/L	4600	16600	490	12100	71400	99500	25100	24400	27900	20500	66000	23700	12500	16300	222000	4330	9740	55300	1380	4310	12600	16100	10700	10500	18800
Metals	Chromium	100	ug/L	3.46 J	< 10.0	< 10.0	< 10.0	< 10.0	4.46 J	< 10.0	< 10.0	< 10.0	1.04 J	1.94 J	< 10.0	< 10.0	< 10.0	< 10.0	2.27 J	< 10.0	1.07 J	1.96 J	< 10.0	1.95 J	< 10.0	2.06 J	< 10.0	< 10.0
Metals	Cobalt		ug/L	2.5 J	4.14 J	1.21 J	1.19 J	6.41	7.56	2.26 J	2.53 J	2.05 J	7.87	24	4.38 J	3.32 J	6.53	1.16 J	< 5.00	3.69 J	7.89	< 5.00	< 5.00	< 5.00	2.93 J	< 5.00	7.88	< 5.00
Metals	Copper	1300	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	58.6	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	3.83 J	< 20.0
Metals	Iron		ug/L	134	< 100	562	4930	< 100	< 100	< 100	< 100	< 100	55.1 J	11900	< 100	164	< 100	< 100	< 100	229	65.8 J	< 100	626	19700	< 100	29000	56.3 J	< 100
Metals	Lead	15	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 100	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	4.1 J	4.81 J	< 20.0	< 20.0	< 20.0
Metals	Magnesium		ug/L	1580	3500	251 J	5100	21600	24700	7800	7630	13200	7990	18900	9330	4230	5030	36000	1520	6900	9890	852	2260	5040	5570	13900	995	5250
Metals	Manganese		ug/L	38	90.3	8.71 J	539	142	824	440	427	83.5	405	3440	230	427	282	229	< 10.0	420	1280	7.36 J	2.37 J	272	239	5370	23	32.7
Metals	Mercury	2	ug/L	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	0.084 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Metals	Nickel		ug/L	4480	7.34	1.85 J	2.6 J	6.89	17.5	10.3	10.5	10.8	9.39	2.07 J	5.84	4.08 J	8.33	12	1.95 J	2.29 J	13.4	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	2.72 J	< 5.00
Metals	Potassium		ug/L	1570	2500	664	5990	13400	11500	8800	8700	6280	9980	17500	8550	12900	7440	11400	1510	666	7030	645	934	2500	8010	3850	8120	4500
Metals	Selenium	50	ug/L	< 30.0	7.61 J	< 30.0	6.33 J	12.9 J	14.9 J	9.01 J	7.72 J	8.48 J	< 30.0	6.14 J	< 30.0	< 30.0	< 30.0	23.7 J	< 30.0	< 30.0	9.61 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Silver		ug/L	1.14 J	< 5.00	1.22 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.6 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.25 J	< 5.00	1.56 J	1.68 J	1.02 J	< 5.00	< 5.00
Metals	Sodium		ug/L	5040	19700	2410	45100	124000	447000	79300	78100	36200	50400	15700	38900	20000	35000	948000	7420	8600	159000	8150	2420	8090	21300	22400	137000	32900
Metals	Thallium	2	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Vanadium		ug/L	< 5.00	< 5.00	< 5.00	2.36 J	4.07 J	5.11	2.56 J	2.67 J	< 5.00	2.81 J	< 5.00	2.03 J	2.69 J	8.37	6.59	< 5.00	< 5.00	1.92 J	< 5.00	< 5.00	9.28	1.26 J	< 5.00	2.32 J	8.16
SVOCs	Zinc		ug/L	7.63 J	7.87 J	8.59 J	7.9 J	13.9 J	4.69 J	7.18 J	41.1	45	5.79 J	11.5 J	10.7 J	19.1 J	29	26.4	7 J	7.63 J	47	4.69 J	4.23 J	16 J	< 20.0	4.96 J	10.3 J	4.5 J
SVOCs	1,1'-Biphenyl		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,5-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,6-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dichlorophenol		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,4-Dimethylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dinitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	2,4-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,6-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Chloronaphthalene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Chlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Methylnaphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	2-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Nitrophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3,3'-Dichlorobenzidine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4,6-Dinitro-2-methylphenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	4-Bromophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloro-3-methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Chlorophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Nitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Acenaphthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-30	W-32	W-33	W-33-DUP	W-35	W-36	W-37	W-38	W-39	W-40	W-41R	W-42	W-43	W-44	W-45	W-46	W-47	W-48-DUP	W-48	W-49-DUP	W-49	W-50	W-51	W-52	W-53
			Date	10/7/2019	10/8/2019	10/17/2019	10/17/2019	10/2/2019	10/2/2019	10/2/2019	10/4/2019	10/18/2019	10/15/2019	10/14/2019	10/22/2019	10/18/2019	10/14/2019	10/2/2019	10/21/2019	10/17/2019	10/21/2019	10/21/2019	10/24/2019	10/24/2019	10/15/2019	10/3/2019	10/3/2019	10/3/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	7.57	7.17	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	8.93	< 5.00	< 5.00	< 5.00	4.37	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Radiological	Beta particles	50**	pCi/L	20.8	175	7.78	5.81	< 5.00	< 5.00	< 5.00	< 5.00	8.84	< 5.00	14.3	< 5.00	< 5.00	< 5.00	16.6	40.4	61.6	7.64	9.32	< 5.00	< 5.00	< 5.00	3.56	< 5.00	< 5.00
Radiological	Tritium		pCi/L	< 700	< 700	< 700	< 700	NA	NA	NA	NA	< 700	NA	< 700	NA	< 700	< 700	NA	NA	< 700	< 700	< 700	NA	NA	NA	NA	NA	NA
Radiological	Technetium-99	900	pCi/L	49.7	321	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	62.8	94.2	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Radiological	Uranium-233/234		pCi/L	11.5	0.322	< 0.500	< 0.500	0.304	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.897	< 0.500	< 0.500	< 0.500	< 0.500	0.432	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Radiological	Uranium-235/236		pCi/L	0.914	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.115	< 0.500
Radiological	Uranium-238		pCi/L	3.31	0.191	< 0.500	< 0.500	0.109	< 0.500	< 0.500	0.128	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.477	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Radiological	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Radiological	Uranium-235		ug/L	0.199	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	0.0216 J	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070
Radiological	Uranium-238		ug/L	8.71	0.224	< 0.200	< 0.200	< 0.200	< 0.200	0.0936 J	0.183 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	0.983	< 0.200	< 0.200	< 0.200	< 0.200	0.0865 J	0.0695 J	0.101 J	< 0.200	< 0.200	< 0.200
Chemical	Total Uranium Isotopes	30	mg/L	8.91	0.224	< 0.200	< 0.200	< 0.200	< 0.200	0.0936 J	0.183 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	1	< 0.200	< 0.200	< 0.200	< 0.200	0.0865 J	0.0695 J	0.101 J	< 0.200	< 0.200	< 0.200
Chemical	Fluoride	4	mg/L	8.06	3.66	0.152	0.136	0.025	0.007	0.02	0.176	0.024	0.166	0.03	1.99	0.111	0.023	0.633	0.033	4.45	0.321	0.33	0.053	0.003	0.035	0.215	1.39	0.081
Chemical	Nitrate as N	10	mg/L	120	170	13	13	3.2	0.11	3.5	4.3	73	4.3	65	4.7	6.3	2.4	0.093	7.8	42	4.9	5.3	< 0.020	< 0.020	< 0.020	0.11	1.3	0.57
Metals	Ammonia as N		ug/L	1.83	47.9	0.0134	0.0189	0.0075	0.0089	0.0088	0.0141	0.0218	0.0203	0.0299	0.806	0.0198	0.0186	2.08	0.0129	16.5	0.0422	0.0446	0.0097	0.0151	0.0185	0.256	0.0212	0.0397
Metals	Aluminum		ug/L	356	< 200	< 200	< 200	< 200	< 200	< 200	80.9 J	< 200	< 200	< 200	1150	< 200	< 200	90.5 J	< 200	571	87.4 J	70.4 J	< 200	< 200	< 200	< 200	< 200	< 200
Metals	Antimony	6	ug/L	< 20.0	< 20.0	4.02 J	< 20.0	< 20.0	< 20.0	3.87 J	4.6 J	8.79 J	8.02 J	6.21 J	< 20.0	3.76 J	< 20.0	8.1 J	< 20.0	5.33 J	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	7.32 J	< 20.0
Metals	Arsenic	10	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Barium	2000	ug/L	234	484	181	201	62.5	34.9	51.6	96.7	324	16.8	655	101	159	151	28.8	144	260	99.1	97.1	11.6	10.5	8.87	57	59.9	78.2
Metals	Beryllium	4	ug/L	1.03 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	3.32 J	< 5.00	< 5.00	< 5.00	1.26 J	2.32 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Cadmium	5	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Calcium		ug/L	90700	40600	12700	14100	16000	1430	9960	7850	41500	16700	34600	3980	8770	5460	35100	8640	22300	5870	5690	790	729	733	11600	11100	15600
Metals	Chromium	100	ug/L	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	4.22 J	4.29 J	< 10.0	< 10.0	1.48 J	< 10.0	1.28 J	3.15 J	< 10.0	< 10.0	1.24 J	1.11 J	< 10.0	14.7	9.3 J	< 10.0	< 10.0	1.41 J	< 10.0
Metals	Cobalt		ug/L	1.24 J	< 5.00	< 5.00	< 5.00	4.39 J	< 5.00	< 5.00	1.84 J	1.52 J	< 5.00	< 5.00	3.22 J	< 5.00	< 5.00	2.04 J	1.16 J	7.85	< 5.00	< 5.00	1.19 J	1.25 J	2.36 J	3.06 J	6.28	10.6
Metals	Copper	1300	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	6.02 J	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	109	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Iron		ug/L	< 100	< 100	< 100	< 100	< 100	460	< 100	< 100	< 100	< 100	< 100	< 100	< 100	75.8 J	34900	< 100	< 100	< 100	< 100	1010	817	443	40100	2400	5620
Metals	Lead	15	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	5.76 J	< 20.0	< 20.0	< 20.0	5.46 J	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Magnesium		ug/L	4230	12000	5160	5620	4310	437	5860	4650	7620	2630	11000	1970	3590	3060	7930	4980	8890	2300	2230	333	296 J	335	3830	3740	6580
Metals	Manganese		ug/L	73.2	363	4.55 J	5.08 J	5.29 J	54.9	< 10.0	48.5	43.4	< 10.0	5.52 J	343	5.24 J	8.67 J	316	8.93 J	986	28.8	26.9	9.89 J	8.85 J	10.4	822	696	376
Metals	Mercury	2	ug/L	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	0.219	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Metals	Nickel		ug/L	18.7	4.04 J	4.74 J	5.71	977	< 5.00	< 5.00	271	< 5.00	< 5.00	< 5.00	1.62 J	< 5.00	< 5.00	262	6.13	3.35 J	< 5.00	< 5.00	3.61 J	3.11 J	3.06 J	28.2	122	2.91 J
Metals	Potassium		ug/L	7800	9130	2780	2970	3320	1190	2230	2640	3230	2820	5240	3690	2650	2850	7530	2670	9220	3030	2940	732	607	670	2700	2430	3570
Metals	Selenium	50	ug/L	8.76 J	20.3 J	< 30.0	< 30.0	13 J	< 30.0	8.99 J	12.8 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	10.5 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	7.27 J	9.06 J
Metals	Silver		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.15 J	< 5.00	< 5.00	< 5.00	1.17 J	1.08 J	< 5.00	1.05 J	2.18 J	< 5.00	< 5.00	1.53 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Sodium		ug/L	147000	221000	14400	15300	8180	5450	13300	21300	106000	2210	66600	3770	3020	5570	390000	18700	53900	10400	10100	3900	3660	3180	8610	30900	10700
Metals	Thallium	2	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Vanadium		ug/L	2.25 J	2.99 J	< 5.00	< 5.00	< 5.00	1.72 J	< 5.00	< 5.00	< 5.00	1.25 J	< 5.00	< 5.00	< 5.00	< 5.00	1.33 J	< 5.00	4.29 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
SVOCs	Zinc		ug/L	12 J	7.24 J	27.1	28.3	12.2 J	9.36 J	12.9 J	10.9 J	6.41 J	< 20.0	7.38 J	4.36 J	4.53 J	< 20.0	12.6 J	10.7 J	4.27 J	5.1 J	4.74 J	9.19 J	8.09 J	11.8 J	6.65 J	11.6 J	15.2 J
SVOCs	1,1'-Biphenyl		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	4.2	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	7.4	< 4.0	4.0
SVOCs	2,4,5-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,6-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dichlorophenol		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,4-Dimethylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dinitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	2,4-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,6-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Chloronaphthalene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Chlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Methylnaphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	12	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	2-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Nitrophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3,3'-Dichlorobenzidine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4,6-Dinitro-2-methylphenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	4-Bromophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloro-3-methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Chlorophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Nitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Acenaphthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	1.5	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-54	W-54-DUP	W-55	W-56	W-57	W-58	W-59	W-60	W-61	W-62	W-63	W-64	W-65	W-66	W-67	W-68	W-69	W-70	W-71	W-72	W-73	W-74	W-75	W-76	W-77
			Date	10/4/2019	10/4/2019	10/4/2019	10/4/2019	10/3/2019	10/4/2019	10/5/2019	10/17/2019	10/17/2019	10/22/2019	10/21/2019	10/17/2019	10/17/2019	10/17/2019	10/18/2019	10/22/2019	10/23/2019	10/23/2019	10/23/2019	10/4/2019	10/4/2019	10/9/2019	10/9/2019	10/5/2019	10/6/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	**438**	**264**	< 5.00	**4.21**	**44.4**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**865**
Radiological	Beta particles	50**	pCi/L	< 5.00	< 5.00	**77.3**	**54.5**	< 5.00	< 5.00	**17.4**	< 5.00	< 5.00	**4.85**	< 5.00	**70.3**	**7.14**	< 5.00	**65.3**	< 5.00	< 5.00	< 5.00	**8.11**	< 5.00	< 5.00	< 5.00	< 5.00	**6.88**	**111**
Radiological	Tritium		pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radiological	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	**81.9**	< 50.0	< 50.0	**84.3**	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	**101**
Radiological	Uranium-233/234		pCi/L	< 0.500	< 0.500	**290**	**192**	< 0.500	**2.10**	**38.0**	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	**0.366**	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	**1.60**	**511**
Radiological	Uranium-235/236		pCi/L	< 0.500	**0.0554**	**16.3**	**9.18**	< 0.500	< 0.500	**2.02**	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	**26.0**
Radiological	Uranium-238		pCi/L	< 0.500	< 0.500	**60.5**	**37.9**	< 0.500	< 0.500	**8.26**	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	**0.354**	**81.0**
Radiological	Uranium-234		ug/L	< 0.050	< 0.050	**0.052**	**0.034 J**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.089**
Radiological	Uranium-235		ug/L	< 0.070	< 0.070	**5.79**	**4.19**	< 0.070	**0.049 J**	**0.659**	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	**0.0308 J**	**10.1**
Radiological	Uranium-238		ug/L	< 0.200	< 0.200	**177**	**130**	**0.207**	**1.67**	**21.6**	< 0.200	< 0.200	< 0.200	**0.123 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.165 J**	**0.095 J**	**0.0831 J**	< 0.200	< 0.200	**0.915**	**237**
Chemical	Total Uranium Isotopes	30	mg/L	< 0.200	< 0.200	**183**	**134**	**0.207**	**1.72**	**22.2**	< 0.200	< 0.200	< 0.200	**0.123 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.165 J**	**0.095 J**	**0.0831 J**	< 0.200	< 0.200	**0.946**	**247**
Chemical	Fluoride	4	mg/L	**0.258**	**0.26**	**0.062**	**0.257**	**0.057**	**0.18**	**4.18**	**0.034**	**0.036**	**0.019**	**0.259**	**4.27**	**0.783**	**0.076**	**0.01**	**0.02**	**0.022**	< 0.100	**0.084**	**0.116**	**0.071**	**0.019**	**0.109**	**1.45**	**9.21**
Chemical	Nitrate as N	10	mg/L	**2.8**	**2.8**	**3.7**	**4.2**	**4.6**	**9.7**	**14**	**0.035**	**2.5**	**4.0**	**0.34**	**42**	**0.64**	**1.5**	**14**	**3.0**	**0.16**	**1.4**	**0.021**	**1.5**	**2.0**	**4.9**	**0.063**	**9.8**	**12**
Metals	Ammonia as N		ug/L	**0.0037**	**0.0125**	**0.0108**	**0.009**	**0.0155**	**18.6**	**12.3**	**0.0251**	**0.0274**	**0.0162**	**0.023**	**16**	**0.0489**	**0.0336**	**1.31**	**0.0143**	**0.0341**	**0.0077**	**0.0149**	**0.275**	**0.0167**	**0.159**	**0.391**	**0.0154**	**7.11**
Metals	Aluminum		ug/L	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	**785**	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	**126 J**	< 200	< 200	**894**	**750**
Metals	Antimony	6	ug/L	**4.12 J**	< 20.0	< 20.0	**7.39 J**	**4.3 J**	**7.38 J**	**4.22 J**	< 20.0	**5.44 J**	< 20.0	< 20.0	**8.91 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**7.15 J**	**5.12 J**	**3.54 J**	**4.18 J**	**4.12 J**	**5.99 J**	**3.53 J**
Metals	Arsenic	10	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	**5.4 J**	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Barium	2000	ug/L	**61.2**	**61.8**	**41.6**	**57.1**	**73.4**	**167**	**210**	**121**	**216**	**75.7**	**70.9**	**394**	**93.7**	**68.5**	**306**	**92.9**	**68.9**	**91.2**	**22**	**48.9**	**79**	**151**	**104**	**129**	**70.9**
Metals	Beryllium	4	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**2.35 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**1.17 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**1.49 J**	< 5.00
Metals	Cadmium	5	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Calcium		ug/L	**11900**	**12100**	**8400**	**11300**	**10600**	**17500**	**16400**	**6900**	**10400**	**4420**	**12600**	**22900**	**8060**	**6730**	**11500**	**4530**	**2480**	**3170**	**4300**	**11900**	**9540**	**6700**	**12900**	**4430**	**9350**
Metals	Chromium	100	ug/L	**2.36 J**	**2.48 J**	**5.03 J**	**4.16 J**	**3.38 J**	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	**1.14 J**	< 10.0	< 10.0	< 10.0	**2.69 J**	< 10.0	< 10.0	< 10.0	**1.59 J**	**1.66 J**	< 10.0	< 10.0	**1.12 J**	**2.55 J**
Metals	Cobalt		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**1.82 J**	**5.12**	< 5.00	< 5.00	**14.1**	**1.19 J**	< 5.00	**4.77 J**	< 5.00	**8.08**	**9.91**	< 5.00	**5.27**	**6.27**	**3.43 J**	**29.2**	**1.41 J**	**1.27 J**
Metals	Copper	1300	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**9.06 J**	< 20.0	< 20.0	< 20.0	**10 J**
Metals	Iron		ug/L	**1190**	**1230**	< 100	< 100	**30.6 J**	< 100	< 100	**3810**	**150**	< 100	**3440**	< 100	**3680**	< 100	< 100	**30.1 J**	**4120**	**38.5 J**	**5910**	**1070**	**299**	**44.6 J**	**4590**	< 100	**223**
Metals	Lead	15	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**3.41 J**	**5.14 J**	< 20.0	< 20.0	**5.51 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	**5.18 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Magnesium		ug/L	**4910**	**4970**	**5170**	**5480**	**5240**	**6050**	**6590**	**2210**	**3310**	**1660**	**1770**	**9060**	**2160**	**2400**	**4130**	**1850**	**794**	**1410**	**745**	**3760**	**4600**	**3050**	**5220**	**1510**	**1970**
Metals	Manganese		ug/L	**29.9**	**32.1**	**3.76 J**	**7.66 J**	**18.9**	**208**	**62.8**	**76.8**	**330**	**4.32 J**	**259**	**662**	**193**	**15.4**	**16.5**	**2.94 J**	**412**	**90.4**	**81.6**	**992**	**454**	**134**	**740**	**32.9**	**5.83 J**
Metals	Mercury	2	ug/L	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	**0.284**	**0.189 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Metals	Nickel		ug/L	**144**	**127**	**17.3**	**4.73 J**	**25.6**	**96.7**	**10.3**	< 5.00	**4.81 J**	**2.04 J**	< 5.00	**3.94 J**	< 5.00	< 5.00	**2.64 J**	**2.3 J**	**1.94 J**	**4.49 J**	< 5.00	**9.31**	**99.7**	**21.1**	**315**	**1.8 J**	**8.14**
Metals	Potassium		ug/L	**2590**	**2610**	**2130**	**2710**	**2740**	**4300**	**6120**	**2400**	**3850**	**1630**	**5280**	**8640**	**2200**	**1990**	**4250**	**1410**	**840**	**2190**	**7080**	**3260**	**2400**	**3030**	**3910**	**3900**	**6270**
Metals	Selenium	50	ug/L	**13.1 J**	**15.4 J**	**9.89 J**	**8.58 J**	**11.1 J**	**9.88 J**	**8.65 J**	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	**12.9 J**	< 30.0	**7.38 J**	< 30.0	< 30.0
Metals	Silver		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	**1.08 J**	< 5.00	**1.08 J**	< 5.00	**1.75 J**	< 5.00	< 5.00	**2.5 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**1.73 J**	< 5.00	< 5.00	**1.05 J**	< 5.00	< 5.00	< 5.00
Metals	Sodium		ug/L	**10900**	**10800**	**11400**	**14000**	**12300**	**18600**	**41800**	**7130**	**4000**	**6540**	**73900**	**49100**	**20900**	**5430**	**21900**	**6980**	**13600**	**3580**	**10800**	**12400**	**10200**	**10900**	**7670**	**22200**	**277000**
Metals	Thallium	2	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Vanadium		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**2.04 J**	**6.31**	< 5.00	< 5.00	< 5.00	< 5.00	**1.35 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**11.5**
SVOCs	Zinc		ug/L	**6.15 J**	**6.82 J**	**7.38 J**	**6.45 J**	**9.15 J**	**5.83 J**	**7.86 J**	**4.33 J**	**6.41 J**	**6.66 J**	**4.57 J**	< 20.0	**3.98 J**	**4.35 J**	**6.72 J**	**6.54 J**	**14.4 J**	**12.2 J**	< 20.0	**8.31 J**	**10.8 J**	**14.5 J**	**13.3 J**	**5.89 J**	**28.5**
SVOCs	1,1'-Biphenyl		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,5-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,6-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dichlorophenol		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,4-Dimethylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dinitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	2,4-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,6-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Chloronaphthalene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Chlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Methylnaphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	2-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Nitrophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3,3'-Dichlorobenzidine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4,6-Dinitro-2-methylphenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	4-Bromophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloro-3-methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Chlorophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Nitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Acenaphthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-78	W-79	W-80	W-81	W-82	W-83	W-84	W-85	W-86	W-87	W-88	W-89	W-90	W-92	W-93	W-94	W-95	W-96	W-97	WSW-01*	WSW-02*	WSW-03*	WSW-04*
			Date	10/5/2019	10/7/2019	10/6/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/23/2019	10/23/2019	10/2/2019	10/22/2019	10/22/2019	10/22/2019	10/10/2019	10/6/2019	10/15/2019	10/15/2019	10/11/2019	10/11/2019	10/15/2019	10/22/2019	10/24/2019	10/24/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Alpha particles	15**	pCi/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	3.06	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	3.63	7.11
Radiological	Beta particles	50**	pCi/L	< 5.00	5.90	7.29	< 5.00	4.82	< 5.00	< 5.00	< 5.00	7.12	4.92	< 5.00	< 5.00	23.1	< 5.00	8.18	< 5.00	< 5.00	4.36	11.0	< 5.00	8.80	< 5.00	< 5.00
Radiological	Tritium		pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radiological	Technetium-99	900	pCi/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Radiological	Uranium-233/234		pCi/L	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.603	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Radiological	Uranium-235/236		pCi/L	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Radiological	Uranium-238		pCi/L	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	0.788	0.342
Radiological	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Radiological	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070	< 0.070
Radiological	Uranium-238		ug/L	0.0933 J	0.0892 J	0.151 J	0.0728 J	0.151 J	< 0.200	0.0704 J	< 0.200	< 0.200	0.457	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	0.114 J	< 0.200	< 0.200	0.272	< 0.200	0.776	0.482
Chemical	Total Uranium Isotopes	30	mg/L	0.0933 J	0.0892 J	0.151 J	0.0728 J	0.151 J	< 0.200	0.0704 J	< 0.200	< 0.200	0.457	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	0.114 J	< 0.200	< 0.200	0.272	< 0.200	0.776	0.482
Chemical	Fluoride	4	mg/L	13.4	2.4	1.57	0.042	0.046	0.079	0.087	0.23	0.511	0.278	0.012	0.011	0.039	0.099	0.043	0.043	0.077	0.111	0.375	0.023	0.103	0.013	0.013
Chemical	Nitrate as N	10	mg/L	3.5	4.0	8.3	3.1	0.99	0.76	< 0.020	0.039	< 0.020	0.055	4.5	2.5	2.3	0.029	5.3	< 0.020	0.024	0.054	3.4	0.020	< 0.020	< 0.020	0.067
Metals	Ammonia as N		ug/L	0.0271	0.0146	0.0927	0.0762	0.0275	0.0099	0.0119	0.03	0.0073	0.0127	0.0127	0.0132	0.0147	3.19	0.0324	0.246	0.145	0.228	4.89	0.0639	0.0273	0.0655	0.0166
Metals	Aluminum		ug/L	1320	878	1210	< 200	107 J	< 200	< 200	< 200	419	382	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	82.7 J	< 200	< 200	< 200	78.3 J
Metals	Antimony	6	ug/L	3.58 J	5.15 J	5.32 J	< 20.0	7.19 J	< 20.0	< 20.0	6.48 J	< 20.0	5.21 J	< 20.0	< 20.0	< 20.0	< 20.0	4.77 J	< 20.0	< 20.0	< 20.0	3.97 J	< 20.0	5.89 J	< 20.0	< 20.0
Metals	Arsenic	10	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	7.94 J	5.58 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Barium	2000	ug/L	54.4	75.4	124	266	162	114	215	236	101	89.8	90.5	94	101	165	91.2	114	120	128	155	3.87 J	27.1	2.78 J	7.43
Metals	Beryllium	4	ug/L	< 5.00	1.41 J	1.59 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.26 J	< 5.00	< 5.00
Metals	Cadmium	5	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Calcium		ug/L	7500	11200	17000	6000	1520	4120	5960	9410	2060	5440	5450	4380	3540	6100	5470	5440	6230	8750	7250	380	1990	330	288
Metals	Chromium	100	ug/L	< 10.0	1.86 J	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	1.02 J	< 10.0	2.85 J	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Metals	Cobalt		ug/L	< 5.00	< 5.00	6.06	10.3	17.3	10	19	2.69 J	3.99 J	4.87 J	1.08 J	1.08 J	1.62 J	< 5.00	3.97 J	1.3 J	2.24 J	3.35 J	1.05 J	1.99 J	< 5.00	4.45 J	3.66 J
Metals	Copper	1300	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	26.3	22.2	33.2
Metals	Iron		ug/L	< 100	< 100	230	18800	3030	226	2710	23900	7810	3160	< 100	< 100	< 100	21200	< 100	20900	42900	32300	492	< 100	7050	< 100	< 100
Metals	Lead	15	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	7.16 J	< 20.0	< 20.0	< 20.0	< 20.0	4.88 J	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	3.91 J	5.63 J	5.14 J
Metals	Magnesium		ug/L	1420	5490	5240	1930	902	2200	2390	3970	1180	1770	1840	1940	1300	4490	3060	2490	3880	4150	3420	184 J	970	157 J	190 J
Metals	Manganese		ug/L	2.83 J	12.8	118	385	227	170	1060	242	39.6	386	6.1 J	7.45 J	16.5	687	171	431	538	880	98.9	3.99 J	106	3.95 J	4.84 J
Metals	Mercury	2	ug/L	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Metals	Nickel		ug/L	< 5.00	< 5.00	1.88 J	2.31 J	2.93 J	2.44 J	2.19 J	< 5.00	1.64 J	< 5.00	1.54 J	< 5.00	< 5.00	< 5.00	2.76 J	1.94 J	2.33 J	< 5.00	3.18 J	2.09 J	1.74 J	5.23	5.64
Metals	Potassium		ug/L	4090	4490	7300	4760	1830	1360	1720	1620	174	2250	2010	1680	1710	1630	2830	1110	1190	2020	3780	687	1020	582	879
Metals	Selenium	50	ug/L	8.62 J	8.57 J	12.2 J	< 30.0	< 30.0	6.14 J	9.95 J	< 30.0	< 30.0	6.47 J	< 30.0	< 30.0	< 30.0	< 30.0	15.3 J	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Silver		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	1.54 J	1.23 J	< 5.00	1.44 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Sodium		ug/L	45500	11500	53600	16800	25600	23200	25600	46200	51000	32500	6330	3430	6810	15800	11700	8060	9960	18300	20800	1620	5130	1740	1140
Metals	Thallium	2	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Vanadium		ug/L	7.88	< 5.00	< 5.00	1.25 J	< 5.00	< 5.00	< 5.00	1.57 J	1.1 J	2.74 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
SVOCs	Zinc		ug/L	8.47 J	4.87 J	8.47 J	4.59 J	13.1 J	8.73 J	13.9 J	3.73 J	3.59 J	7.31 J	10.3 J	< 20.0	6.93 J	3.97 J	12 J	4.18 J	< 20.0	6 J	9.02 J	5.83 J	13.4 J	37	116
SVOCs	1,1'-Biphenyl		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,5-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4,6-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dichlorophenol		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,4-Dimethylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2,4-Dinitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	2,4-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2,6-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Chloronaphthalene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Chlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Methylnaphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	2-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	2-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	2-Nitrophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3,3'-Dichlorobenzidine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	3-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4,6-Dinitro-2-methylphenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	4-Bromophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloro-3-methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Chloroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Chlorophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	4-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	4-Nitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Acenaphthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-RW1	W-RW2	W-3A	W-4	W-6	W-7A	W-10	W-10-DUP	W-11	W-13R	W-14	W-15	W-16	W-17	W-18R	W-19B	W-20	W-22	W-23R	W-24	W-25	W-26	W-27	W-28	W-29
			Date	10/3/2019	10/11/2019	10/10/2019	10/10/2019	10/7/2019	10/9/2019	10/9/2019	10/9/2019	10/8/2019	10/8/2019	10/18/2019	10/21/2019	10/21/2019	10/21/2019	10/7/2019	10/21/2019	10/15/2019	10/7/2019	10/18/2019	10/11/2019	10/16/2019	10/14/2019	10/10/2019	10/7/2019	10/7/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Acenaphthylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Acetophenone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Atrazine	3	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Benz(a)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzaldehyde		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Benzo(a)pyrene	0.2	ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(b)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(g,h,i)perylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(k)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Bis(2-chloroethoxy)methane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroethyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroisopropyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-ethylhexyl)phthalate	6	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Butyl benzyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Caprolactam		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Carbazole		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Chrysene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Di-n-butyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Di-n-octyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dibenz(a,h)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Dibenzofuran		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Diethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dimethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Fluorene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Hexachlorobenzene	1	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorobutadiene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorocyclopentadiene	50	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Hexachloroethane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Indeno(1,2,3-cd)pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Isophorone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodi-n-propylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodiphenylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Naphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Nitrobenzene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Pentachlorophenol	1	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Phenanthrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Phenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
VOCs	Pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
VOCs	(1-Methylethyl)-Benzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,1-Trichloroethane	200	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2,2-Tetrachloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2,4-Trichlorobenzene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromo-3-chloropropane	0.2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromoethane	0.05	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichlorobenzene	600	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,3-Dichlorobenzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,4-Dichlorobenzene	75	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	2-Hexanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	4-Methyl-2-pentanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
VOCs	Benzene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromodichloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromoform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromomethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Carbon disulfide		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Carbon tetrachloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-30	W-32	W-33	W-33-DUP	W-35	W-36	W-37	W-38	W-39	W-40	W-41R	W-42	W-43	W-44	W-45	W-46	W-47	W-48-DUP	W-48	W-49-DUP	W-49	W-50	W-51	W-52	W-53
			Date	10/7/2019	10/8/2019	10/17/2019	10/17/2019	10/2/2019	10/2/2019	10/2/2019	10/4/2019	10/18/2019	10/15/2019	10/14/2019	10/22/2019	10/18/2019	10/14/2019	10/2/2019	10/21/2019	10/17/2019	10/21/2019	10/21/2019	10/24/2019	10/24/2019	10/15/2019	10/3/2019	10/3/2019	10/3/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Acenaphthylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Acetophenone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Atrazine	3	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Benz(a)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzaldehyde		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Benzo(a)pyrene	0.2	ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(b)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(g,h,i)perylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(k)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Bis(2-chloroethoxy)methane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroethyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroisopropyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-ethylhexyl)phthalate	6	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Butyl benzyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Caprolactam		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Carbazole		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**4.4**
SVOCs	Chrysene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Di-n-butyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Di-n-octyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dibenz(a,h)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Dibenzofuran		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Diethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dimethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Fluorene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	**1.7**	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	**1.0**
SVOCs	Hexachlorobenzene	1	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorobutadiene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorocyclopentadiene	50	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Hexachloroethane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Indeno(1,2,3-cd)pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Isophorone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodi-n-propylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodiphenylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Naphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	**15**	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Nitrobenzene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Pentachlorophenol	1	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Phenanthrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	**1.1**	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	**5.2**
SVOCs	Phenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
VOCs	Pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
VOCs	(1-Methylethyl)-Benzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,1-Trichloroethane	200	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2,2-Tetrachloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2,4-Trichlorobenzene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromo-3-chloropropane	0.2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromoethane	0.05	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichlorobenzene	600	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,3-Dichlorobenzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,4-Dichlorobenzene	75	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	2-Hexanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	4-Methyl-2-pentanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
VOCs	Benzene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0
VOCs	Bromodichloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromoform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromomethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Carbon disulfide		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Carbon tetrachloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-54	W-54-DUP	W-55	W-56	W-57	W-58	W-59	W-60	W-61	W-62	W-63	W-64	W-65	W-66	W-67	W-68	W-69	W-70	W-71	W-72	W-73	W-74	W-75	W-76	W-77
			Date	10/4/2019	10/4/2019	10/4/2019	10/4/2019	10/3/2019	10/4/2019	10/5/2019	10/17/2019	10/17/2019	10/22/2019	10/21/2019	10/17/2019	10/17/2019	10/17/2019	10/18/2019	10/22/2019	10/23/2019	10/23/2019	10/23/2019	10/4/2019	10/4/2019	10/9/2019	10/9/2019	10/5/2019	10/6/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Acenaphthylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Acetophenone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Atrazine	3	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Benz(a)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzaldehyde		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Benzo(a)pyrene	0.2	ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(b)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(g,h,i)perylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(k)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Bis(2-chloroethoxy)methane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroethyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroisopropyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-ethylhexyl)phthalate	6	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Butyl benzyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Caprolactam		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Carbazole		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Chrysene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Di-n-butyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Di-n-octyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dibenz(a,h)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Dibenzofuran		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Diethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dimethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Fluorene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Hexachlorobenzene	1	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorobutadiene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorocyclopentadiene	50	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Hexachloroethane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Indeno(1,2,3-cd)pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Isophorone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodi-n-propylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodiphenylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Naphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Nitrobenzene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Pentachlorophenol	1	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Phenanthrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Phenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
VOCs	Pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
VOCs	(1-Methylethyl)-Benzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,1-Trichloroethane	200	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2,2-Tetrachloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2,4-Trichlorobenzene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromo-3-chloropropane	0.2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromoethane	0.05	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichlorobenzene	600	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,3-Dichlorobenzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,4-Dichlorobenzene	75	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	2-Hexanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	4-Methyl-2-pentanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
VOCs	Benzene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0
VOCs	Bromodichloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.4**
VOCs	Bromoform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**11**
VOCs	Bromomethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Carbon disulfide		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Carbon tetrachloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-78	W-79	W-80	W-81	W-82	W-83	W-84	W-85	W-86	W-87	W-88	W-89	W-90	W-92	W-93	W-94	W-95	W-96	W-97	WSW-01*	WSW-02*	WSW-03*	WSW-04*
			Date	10/5/2019	10/7/2019	10/6/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/23/2019	10/23/2019	10/2/2019	10/22/2019	10/22/2019	10/22/2019	10/10/2019	10/6/2019	10/15/2019	10/15/2019	10/11/2019	10/11/2019	10/15/2019	10/22/2019	10/24/2019	10/24/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Acenaphthylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Acetophenone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Atrazine	3	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Benz(a)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzaldehyde		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Benzo(a)pyrene	0.2	ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(b)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(g,h,i)perylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Benzo(k)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Bis(2-chloroethoxy)methane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroethyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-chloroisopropyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Bis(2-ethylhexyl)phthalate	6	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Butyl benzyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Caprolactam		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
SVOCs	Carbazole		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Chrysene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Di-n-butyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Di-n-octyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dibenz(a,h)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Dibenzofuran		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Diethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Dimethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Fluorene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Hexachlorobenzene	1	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorobutadiene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Hexachlorocyclopentadiene	50	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Hexachloroethane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Indeno(1,2,3-cd)pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Isophorone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodi-n-propylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	N-Nitrosodiphenylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Naphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Nitrobenzene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
SVOCs	Pentachlorophenol	1	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Phenanthrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
SVOCs	Phenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
VOCs	Pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
VOCs	(1-Methylethyl)-Benzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,1-Trichloroethane	200	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2,2-Tetrachloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2,4-Trichlorobenzene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromo-3-chloropropane	0.2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dibromoethane	0.05	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichlorobenzene	600	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,3-Dichlorobenzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	1,4-Dichlorobenzene	75	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	2-Hexanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	4-Methyl-2-pentanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
VOCs	Benzene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromodichloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromoform		ug/L	< 1.0	< 1.0	**3.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Bromomethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Carbon disulfide		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Carbon tetrachloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
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			Well	W-RW1	W-RW2	W-3A	W-4	W-6	W-7A	W-10	W-10-DUP	W-11	W-13R	W-14	W-15	W-16	W-17	W-18R	W-19B	W-20	W-22	W-23R	W-24	W-25	W-26	W-27	W-28	W-29
			Date	10/3/2019	10/11/2019	10/10/2019	10/10/2019	10/7/2019	10/9/2019	10/9/2019	10/9/2019	10/8/2019	10/8/2019	10/18/2019	10/21/2019	10/21/2019	10/21/2019	10/7/2019	10/21/2019	10/15/2019	10/7/2019	10/18/2019	10/11/2019	10/16/2019	10/14/2019	10/10/2019	10/7/2019	10/7/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloroethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Chloroform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**
VOCs	Chloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	**2.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3**	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.7**	< 1.0	< 1.0	< 1.0
VOCs	cis-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Cyclohexane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dibromochloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dichlorodifluoromethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl acetate		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl tert-butyl ether		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methylcyclohexane		ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
VOCs	Methylene chloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Styrene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Tetrachloroethene	5	ug/L	**1.4**	**140**	< 1.0	< 1.0	**16**	**1.9**	< 1.0	< 1.0	**1.4**	**15**	**1.1**	**12**	**7.8**	**4.3**	**3.5**	**150**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Toluene	1000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichloroethene	5	ug/L	< 1.0	**8.3**	< 1.0	< 1.0	**2.5**	< 1.0	< 1.0	< 1.0	< 1.0	**1.4**	< 1.0	**2.0**	**2.2**	< 1.0	< 1.0	**2.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichlorofluoromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Xylenes, Total	10000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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			Well	W-30	W-32	W-33	W-33-DUP	W-35	W-36	W-37	W-38	W-39	W-40
			Date	10/7/2019	10/8/2019	10/17/2019	10/17/2019	10/2/2019	10/2/2019	10/2/2019	10/4/2019	10/18/2019	10/15/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Chloroethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0
VOCs	Chloroform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Chloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	**1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**13**	< 1.0
VOCs	cis-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Cyclohexane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Dibromochloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Dichlorodifluoromethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0
VOCs	Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Methyl acetate		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Methyl tert-butyl ether		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Methylcyclohexane		ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0
VOCs	Methylene chloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Styrene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Tetrachloroethene	5	ug/L	< 1.0	**1.4**	**300**	**330**	**2.6**	< 1.0	< 1.0	**1.8**	**290**	< 1.0
VOCs	Toluene	1000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	trans-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Trichloroethene	5	ug/L	< 1.0	< 1.0	**38**	**24**	< 1.0	< 1.0	< 1.0	**11**	**5.2**	< 1.0
VOCs	Trichlorofluoromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
VOCs	Xylenes, Total	10000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Well	W-41R	W-42	W-43	W-44	W-45	W-46	W-47	W-48-DUP	W-48	W-49-DUP	W-49	W-50	W-51	W-52	W-53
Date	10/14/2019	10/22/2019	10/18/2019	10/14/2019	10/2/2019	10/21/2019	10/17/2019	10/21/2019	10/21/2019	10/24/2019	10/24/2019	10/15/2019	10/3/2019	10/3/2019	10/3/2019
Analyte	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	**4.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.0**	**2.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cyclohexane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	**2.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl acetate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl tert-butyl ether	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylcyclohexane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	**190**	< 1.0	< 1.0	< 1.0	< 1.0	**2.5**	**1.6**	**200**	**200**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.7**	**4.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-54	W-54-DUP	W-55	W-56	W-57	W-58	W-59	W-60	W-61	W-62	W-63	W-64
			Date	10/4/2019	10/4/2019	10/4/2019	10/4/2019	10/3/2019	10/4/2019	10/5/2019	10/17/2019	10/17/2019	10/22/2019	10/21/2019	10/17/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloroethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Chloroform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Cyclohexane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dibromochloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dichlorodifluoromethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl acetate		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl tert-butyl ether		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methylcyclohexane		ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
VOCs	Methylene chloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Styrene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**42**	**1.0**	**1.3**
VOCs	Toluene	1000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.1**	< 1.0
VOCs	Trichlorofluoromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Xylenes, Total	10000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

	Well	W-65	W-66	W-67	W-68	W-69	W-70	W-71	W-72	W-73	W-74	W-75	W-76	W-77
	Date	10/17/2019	10/17/2019	10/18/2019	10/22/2019	10/23/2019	10/23/2019	10/23/2019	10/4/2019	10/4/2019	10/9/2019	10/9/2019	10/5/2019	10/6/2019
Group	Analyte	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chlorobenzene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloroethane	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Chloroform	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**11**
VOCs	Chloromethane	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,2-Dichloroethene	**13**	**22**	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	**1.9**	< 1.0	< 1.0	< 1.0
VOCs	cis-1,3-Dichloropropene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Cyclohexane	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dibromochloromethane	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.6**
VOCs	Dichlorodifluoromethane	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Ethylbenzene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl acetate	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl tert-butyl ether	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methylcyclohexane	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
VOCs	Methylene chloride	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Styrene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Tetrachloroethene	**220**	**480**	**49**	**110**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**19**	< 1.0	< 1.0	< 1.0
VOCs	Toluene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,2-Dichloroethene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,3-Dichloropropene	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichloroethene	**84**	**8.5**	**8.4**	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.5**	< 1.0	**63**	< 1.0
VOCs	Trichlorofluoromethane	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Vinyl chloride	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Xylenes, Total	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table A1
October 2019 Groundwater Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Well	W-78	W-79	W-80	W-81	W-82	W-83	W-84	W-85	W-86	W-87	W-88	W-89	W-90	W-92	W-93	W-94	W-95	W-96	W-97	WSW-01*	WSW-02*	WSW-03*	WSW-04*
			Date	10/5/2019	10/7/2019	10/6/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/23/2019	10/23/2019	10/2/2019	10/22/2019	10/22/2019	10/22/2019	10/10/2019	10/6/2019	10/15/2019	10/15/2019	10/11/2019	10/11/2019	10/15/2019	10/22/2019	10/24/2019	10/24/2019
Group	Analyte	MCL	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloroethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Chloroform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Chloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**5.3**	**4.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	cis-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Cyclohexane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dibromochloromethane		ug/L	< 1.0	< 1.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Dichlorodifluoromethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
VOCs	Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl acetate		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methyl tert-butyl ether		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Methylcyclohexane		ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
VOCs	Methylene chloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Styrene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**38**	**4.1**	**2.1**	< 1.0	< 1.0	**24**	< 1.0	< 1.0	< 1.0	**4.3**	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Toluene	1000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	trans-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**11**	< 1.0	< 1.0	< 1.0	< 1.0	**2.8**	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Trichlorofluoromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs	Xylenes, Total	10000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Notes:
DUP - field duplicate sample
*** - private water supply well groundwater sample**
MCL - Maximum Contaminant Level
**** - site-specific action level**
pCi/L - picocuries per liter
ug/L - micrograms per liter
mg/L - milligrams per liter
SVOCs - semivolatile organic compounds
VOCs - volatile organic compounds
NA - not analyzed
Bold concentrations indicate detections
Concentrations in shaded cells exceed their MCL

Table A2
Surface Water Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Location	SW-11	SW-12	SW-13	SW-14	SW-16	SW-17-DUP	SW-17	SW-18	SW-19	SW-20	SW-21	SW-22	SW-23
			Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019
Group	Analyte	MCL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	900	pci/L	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Radiological	Uranium-233/234		pci/L	**0.296**	< 0.500	< 0.500	**0.575**	**3.34**	< 0.500	< 0.500	< 0.500	**0.587**	**2.35**	< 0.500	< 0.500	< 0.500
Radiological	Uranium-235/236		pci/L	< 0.500	< 0.500	< 0.500	< 0.500	**0.145**	< 0.500	< 0.500	< 0.500	< 0.500	**0.123**	< 0.500	< 0.500	< 0.500
Radiological	Uranium-238		pci/L	< 0.500	< 0.500	< 0.500	< 0.500	**0.710**	< 0.500	< 0.500	< 0.500	< 0.500	**0.626**	< 0.500	< 0.500	< 0.500
Radiological	Uranium-234		ug/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Radiological	Uranium-235		ug/L	< 0.070	< 0.070	< 0.070	< 0.070	**0.0682 J**	< 0.070	< 0.070	< 0.070	**0.0174 J**	**0.0274 J**	< 0.070	< 0.070	< 0.070
Radiological	Uranium-238		ug/L	**0.365**	< 0.200	**0.134 J**	**0.297**	**1.71**	**0.229**	**0.246**	**0.304**	**0.507**	**1.11**	**0.16 J**	**0.199 J**	**0.0673 J**
Radiological	Total Uranium	30	ug/L	**0.365**	< 0.2	**0.134**	**0.297**	**1.78**	**0.229**	**0.246**	**0.304**	**0.524**	**1.14**	**0.160**	**0.199**	**0.0673**
Chemical	Fluoride	4	mg/L	**0.546**	**0.228**	**0.249**	**0.233**	**4.35**	**0.290**	**0.290**	**0.208**	**0.376**	**0.640**	**0.244**	**0.187**	**0.459**
Chemical	Nitrate as N	10	mg/L	**0.146**	**0.296**	**0.226**	**0.234**	**1.69**	**0.471**	**0.460**	**0.309**	**0.154**	**0.494**	**0.433**	**0.432**	**4.94**
Chemical	Ammonia		mg/L	< 0.020	< 0.020	< 0.020	**0.63**	**0.48**	**3.8**	**3.8**	**5.7**	< 0.020	< 0.020	< 0.02	< 0.02	**7.3**
Metals	Aluminum		ug/L	**634**	**118 J**	**212**	**91.3 J**	**155 J**	**141 J**	**144 J**	**721**	**337**	**234**	**116 J**	**102 J**	**203**
Metals	Antimony	6	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Arsenic	10	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Barium	2000	ug/L	**113**	**52.2**	**101**	**66**	**12.3**	**81.8**	**85.3**	**91.8**	**67.1**	**66.3**	**28.3**	**34.5**	**84.4**
Metals	Beryllium	4	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Cadmium	5	ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Calcium		ug/L	**3380**	**6540**	**7900**	**6570**	**4690**	**9770**	**10000**	**8150**	**4010**	**7450**	**3480**	**3760**	**16400**
Metals	Chromium	100	ug/L	**1.47 J**	< 10.0	**1.25 J**	< 10.0	**2.64 J**	< 10.0	< 10.0	**1.19 J**	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Metals	Cobalt		ug/L	**3.96 J**	**1.01 J**	**2.35 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	**5.38**	**2.24 J**	< 5.00	< 5.00	< 5.00
Metals	Copper	1300	ug/L	**3.37 J**	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Iron		ug/L	**2410**	**1110**	**3820**	**1180**	**614**	**682**	**715**	**1260**	**3890**	**4710**	**612**	**844**	**69.7 J**
Metals	Lead	15	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Magnesium		ug/L	**1030**	**1340**	**1490**	**1240**	**326**	**2130**	**2280**	**2140**	**1270**	**1720**	**1020**	**1110**	**4800**
Metals	Manganese		ug/L	**944**	**1320**	**1860**	**275**	**26.8**	**82.9**	**86.5**	**41**	**528**	**642**	**107**	**189**	**73.3**
Metals	Mercury	2	ug/L	**0.081 J**	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Metals	Nickel		ug/L	**1.82 J**	< 5.00	< 5.00	< 5.00	**3.5 J**	**31.4**	**33.4**	**14.8**	**3.17 J**	**1.7 J**	**1.86 J**	**1.83 J**	**1.68 J**
Metals	Potassium		ug/L	**1920**	**1690**	**1850**	**1620**	**816**	**2640**	**2710**	**2280**	**3010**	**3780**	**1310**	**1420**	**6320**
Metals	Selenium	50	ug/L	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0	< 30.0
Metals	Silver		ug/L	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Metals	Sodium		ug/L	**1980**	**4860**	**3780**	**4530**	**1090**	**11200**	**11300**	**9550**	**918**	**4200**	**3590**	**3810**	**48900**
Metals	Thallium	2	ug/L	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
Metals	Vanadium		ug/L	**4.62 J**	< 5.00	**1.79 J**	< 5.00	< 5.00	< 5.00	< 5.00	**1.84 J**	**2.25 J**	**1.57 J**	< 5.00	< 5.00	**1.03 J**
Metals	Zinc		ug/L	**15.2 J**	**5.55 J**	**11.4 J**	**13 J**	**44.6**	**14.7 J**	**15.6 J**	**15.3 J**	**8.82 J**	**7.65 J**	**5.61 J**	**6.12 J**	**4.54 J**
SVOCs	1,1'-Biphenyl		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2,4,5-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2,4,6-Trichlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2,4-Dichlorophenol		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	2,4-Dimethylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2,4-Dinitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	2,4-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	2,6-Dinitrotoluene		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	2-Chloronaphthalene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2-Chlorophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2-Methylnaphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	2-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	2-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	2-Nitrophenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	3,3'-Dichlorobenzidine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	3-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	4,6-Dinitro-2-methylphenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	4-Bromophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	4-Chloro-3-methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	4-Chloroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	4-Chlorophenyl phenyl ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	4-Methylphenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	4-Nitroaniline		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	4-Nitrophenol		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Acenaphthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Acenaphthylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Acetophenone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80

Table A2
Surface Water Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Location	SW-11	SW-12	SW-13	SW-14	SW-16	SW-17-DUP	SW-17	SW-18	SW-19	SW-20	SW-21	SW-22	SW-23
			Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019
Group	Analyte	MCL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Atrazine	3	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Benz(a)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Benzaldehyde		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	Benzo(a)pyrene	0.2	ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Benzo(b)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Benzo(g,h,i)perylene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Benzo(k)fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Bis(2-chloroethoxy)methane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Bis(2-chloroethyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Bis(2-chloroisopropyl)ether		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Bis(2-ethylhexyl)phthalate	6	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Butyl benzyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Caprolactam		ug/L	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8	< 8	< 8.0
SVOCs	Carbazole		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Chrysene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Dibenz(a,h)anthracene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Dibenzofuran		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Diethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Dimethyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Di-n-butyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Di-n-octyl phthalate		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Fluoranthene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Fluorene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Hexachlorobenzene	1	ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Hexachlorobutadiene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Hexachlorocyclopentadiene	50	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Hexachloroethane		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Indeno(1,2,3-cd)pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Isophorone		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Naphthalene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Nitrobenzene		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	N-Nitrosodi-n-propylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	N-Nitrosodiphenylamine		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Pentachlorophenol	1	ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
SVOCs	Phenanthrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
SVOCs	Phenol		ug/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4	< 4	< 4.0
SVOCs	Pyrene		ug/L	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.8	< 0.8	< 0.80
VOCs	(1-Methylethyl)-Benzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1,1-Trichloroethane	200	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1,2,2-Tetrachloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1-Dichloroethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,1-Dichloroethene	7	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2,4-Trichlorobenzene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2-Dibromo-3-chloropropane	0.2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2-Dibromoethane	0.05	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2-Dichlorobenzene	600	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2-Dichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,3-Dichlorobenzene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	1,4-Dichlorobenzene	75	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	2-Butanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	2-Hexanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	4-Methyl-2-pentanone		ug/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs	Acetone		ug/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
VOCs	Benzene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Bromodichloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Bromoform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Bromomethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2.0
VOCs	Carbon disulfide		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Carbon tetrachloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Chloroethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2.0
VOCs	Chloroform		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0

Table A2
Surface Water Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

			Location	SW-11	SW-12	SW-13	SW-14	SW-16	SW-17-DUP	SW-17	SW-18	SW-19	SW-20	SW-21	SW-22	SW-23
			Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019
Group	Analyte	MCL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	cis-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Cyclohexane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Dibromochloromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Dichlorodifluoromethane		ug/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2.0
VOCs	Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Methyl acetate		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Methyl tert-butyl ether		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Methylcyclohexane		ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5.0
VOCs	Methylene chloride	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Styrene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**16**	**16**	**14**	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Toluene	1000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	trans-1,2-Dichloroethene	100	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	trans-1,3-Dichloropropene		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Trichloroethene	5	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	**1.0**	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Trichlorofluoromethane		ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Vinyl chloride	2	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0
VOCs	Xylenes, Total	10000	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1.0

Notes:
DUP - field duplicate sample
MCL - Maximum Contaminant Level
pCi/L - picocuries per liter
ug/L - micrograms per liter
mg/L - milligrams per liter
SVOCs - semivolatile organic compounds
VOCs - volatile organic compounds
Bold concentrations indicate detections
Concentrations in shaded cells exceed their MCL

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	SED-17-DUP	SED-18	SED-19	SED-20	SED-21	SED-22	SED-23	SED-24	SED-25*	SED-26*
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/16/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019	7/16/2019	7/18/2019	7/18/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89400	pCi/g	0.00 #	0.00 #	0.00 #	0.0243 ##	5.62 ##	4.94 ##	7.50 ##	0.00 #	0.00 #	6.28 ##	0.00 #	4.12 ##	0.00 #	50.8	35.8	8.55 ##	1.68 ##
Radiological	Uranium-233/234	13	3310	pCi/g	1.14	0.925	1.67	1.42	2.58	14.9	0.658	1.07	0.219	32.5	62.5	1.86	117	1.35	1.14	907	222
Radiological	Uranium-235/236	8	39	pCi/g	0.00159 ##	0.0647 ##	0.156 ##	0.025 ##	0.181	0.678	0.0235 ##	0.104 ##	0.0173 ##	2.30	3.12	0.104 ##	4.98	0.00261 ##	0.0608 ##	41.1	11.0
Radiological	Uranium-238	14	179	pCi/g	0.742	1.17	1.33	0.389	2.05	2.77	0.302	0.354	0.298	8.18	14.9	1.96	28.0	1.69	0.944	149	46.9
Radiological	Uranium-234			ug/kg	< 25.7	< 25.6	< 15.4	< 12.1	< 12.4	< 12.0	< 11.0	< 11.8	< 12.0	4.27 J	12.7 J	< 30.8	22 J	< 14.4	< 15.9	225	129
Radiological	Uranium-235			ug/kg	11.5 J	16 J	13.8 J	5.32 J	51.2	114	6.57 J	2.9 J	5 J	451	1310	27.8 J	2230	18.3 J	15.9 J	27100	14200
Radiological	Uranium-238			ug/kg	1320	1700	1360	260	5790	3310	401	140	265	16200	49700	2840	80700	2250	1680	646000	487000
Radiological	Total Uranium			ug/kg	1330	1720	1370	265	5840	3420	408	143	270	16700	51000	2870	83000	2270	1700	673000	501000
Chemical	Fluoride			mg/kg	723	560	98.5	6.43	49.0	13.5	4.15	3.66	3.48	401	1600	532	978	214	70.5	2270	167
Chemical	Nitrate as N			mg/kg	0.33	0.24	0.2	< 0.2	< 0.20	2.7	2.1	0.95	< 0.20	1.2	< 0.20	< 0.2	< 0.2	< 0.20	0.20	0.27	1.4
Chemical	Ammonia			mg/kg	1.35 J	2.26 J	1.45 J	< 1.21	2.09	8.73	0.908 J	0.814 J	< 1.22	3.51	15.7	2.17 J	4.64	38.1	49.2	53.3	4.61
Metals	Aluminum			ug/kg	10400	10300	8230	502	3510	682	459	340	401	3600	11000	31200	25800	19800	10500	6570	5540
Metals	Antimony			ug/kg	< 5.29	< 4.93	< 3	0.511 J	< 2.42	0.447 J	0.482 J	0.512 J	< 2.53	< 3.75	< 11.7	< 6	< 6.26	< 2.87	< 2.94	5.01 J	1.22 J
Metals	Arsenic			ug/kg	< 7.94	< 7.39	2.14 J	< 3.61	< 3.63	< 3.69	< 3.46	< 3.35	< 3.8	< 5.63	4.21 J	6.38 J	4.62 J	3.36 J	< 4.4	< 26.7	0.795 J
Metals	Barium			ug/kg	126	118	131	5.16	15.9	5.1	4.92	4.61	4.9	50.2	140	250	209	127	76.8	103	56
Metals	Beryllium			ug/kg	0.718 J	1.13 J	1.02	< 0.601	0.258 J	< 0.614	< 0.577	< 0.558	< 0.634	0.361 J	1.14 J	2.39	2.02	2.09	0.896	< 4.44	0.253 J
Metals	Cadmium			ug/kg	< 1.32	< 1.23	< 0.751	< 0.601	0.14 J	< 0.614	< 0.577	< 0.558	< 0.634	< 0.939	< 2.92	< 1.5	0.374 J	0.209 J	< 0.734	2 J	0.61 J
Metals	Calcium			ug/kg	1110	1020	620	142	452	117	48.5	32.9	21.7 J	375	3550	484	872	770	606	10500	3950
Metals	Chromium			ug/kg	9.99	8.34	18.4	1.24	6.91	1.77	1.02 J	0.576 J	0.606 J	5.32	13.6	40	35.1	29.3	15.2	35.7	49.6
Metals	Cobalt			ug/kg	4.34	2.97	11.6	0.269 J	1.52	< 0.614	0.175 J	0.326 J	< 0.634	3.92	6.31	18.9	16.6	11.8	5	8.69	2.95
Metals	Copper			ug/kg	7.14	5.39	8.83	0.386 J	2.75	1 J	< 2.31	< 2.23	< 2.53	5.33	19.5	29.8	33.1	18.5	7.79	418	116
Metals	Iron			ug/kg	7610	4320	15000	581	4630	1070	257	217	217	3770	10200	25900	32500	29500	10100	12300	2840
Metals	Lead			ug/kg	24	28	13.9	0.865 J	3.74	1.26 J	0.439 J	0.42 J	0.476 J	8.3	25.5	25	37.4	14.4	8.69	45.9	29.3
Metals	Magnesium			ug/kg	481	279	1240	91.5	194	22.3 J	35.7	14.4 J	15 J	238	751	3320	2180	2980	1220	1180	679
Metals	Manganese			ug/kg	230	150	332	15.6	54.8	3.72	18	11.9	12.3	123	246	345	389	268	123	97.2	23
Metals	Mercury			ug/kg	62.3	56.8	15.7 J	< 12.7	5.46 J	< 14.9	< 14.2	< 13.3	< 13.1	34.6	121	75.8	113	40.3	25.8	407	576
Metals	Nickel			ug/kg	4.13	3.51	7.33	0.341 J	2.21	0.568 J	0.773	0.442 J	0.492 J	8.68	15.5	18.7	43.3	11.5	5.45	86.7	75.1
Metals	Potassium			ug/kg	300	263	538	84.4	200	139	87.4	95.4	90.7	205	664	1890	1410	2010	846	798	170
Metals	Selenium			ug/kg	2.38 J	< 7.39	< 4.51	< 3.61	< 3.63	< 3.69	< 3.46	< 3.35	< 3.8	< 5.63	< 17.5	1.51 J	3.29 J	< 4.31	0.885 J	4.72 J	0.72 J
Metals	Silver			ug/kg	< 1.32	< 1.23	< 0.751	< 0.601	< 0.606	< 0.614	< 0.577	< 0.558	< 0.634	< 0.939	< 2.92	< 1.5	< 1.56	< 0.718	< 0.734	323	544
Metals	Sodium			ug/kg	34.8 J	42 J	32.5 J	18.8 J	41.4	12.9 J	14.1 J	17.1 J	13.5 J	19.9 J	109 J	119	69.7 J	130	94.7	919	90.4
Metals	Thallium			ug/kg	< 5.29	< 4.93	< 30	< 2.4	< 2.42	< 2.46	< 2.31	< 2.23	< 2.53	< 3.75	< 11.7	< 60	< 62.6	< 28.7	< 29.4	< 17.8	< 2.6
Metals	Vanadium			ug/kg	25.9	21.6	36.5	1.74	10.5	2.81	1.18	1.43	1.6	13.3	41	100	73.7	70.5	33.5	22.2	7.25
Metals	Zinc			ug/kg	38.2	23	33.8	5.64	50.8	6.09	2.42	1.24 J	1 J	32.4	63.8	73.1	138	46	22.8	9070	229
SVOCs	1,1'-Biphenyl			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2,4,5-Trichlorophenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2,4,6-Trichlorophenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2,4-Dichlorophenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2,4-Dimethylphenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2,4-Dinitrophenol			ug/kg	< 320	< 330	< 320	< 310	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 320	< 310	< 320	< 1600
SVOCs	2,4-Dinitrotoluene			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	2,6-Dinitrotoluene			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	2-Chloronaphthalene			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2-Chlorophenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2-Methylnaphthalene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	2-Methylphenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	2-Nitroaniline			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	2-Nitrophenol			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	3,3'-Dichlorobenzidine			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	3-Nitroaniline			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	4,6-Dinitro-2-methylphenol			ug/kg	< 320	< 330	< 320	< 310	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 320	< 310	< 320	< 1600
SVOCs	4-Bromophenyl phenyl ether			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	4-Chloro-3-methylphenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	4-Chloroaniline			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	4-Chlorophenyl phenyl ether			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	4-Methylphenol			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	4-Nitroaniline			ug/kg	< 130	< 130	< 130	< 120	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 130	< 120	< 120	< 630
SVOCs	4-Nitrophenol			ug/kg	< 320	< 330	< 320	< 310	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 320	< 310	< 320	< 1600
SVOCs	Acenaphthene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Acenaphthylene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Acetophenone			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-27**	SED-28**	SED-29	SED-29	SED-29	SED-30	SED-30	SED-31	SED-31	SED-32	SED-32	SED-33	SED-33	SED-33	SED-34	SED-34	SED-35
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	12 - 16 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	12-16 in	12 - 16 in	0 - 6 in	0 - 6 in
				Date	7/18/2019	7/18/2019	11/20/2019	11/20/2019	11/20/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/22/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89400	pCi/g	0.00 #	**5.75 U**	0.00 #	0.00 #	0.00 #	**2.43 ##**	0.00 #	**0.959 ##**	0.00 #	**5.06 ##**	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #
Radiological	Uranium-233/234	13	3310	pCi/g	**225**	**254**	**6.23**	**1.81**	**1.23**	**5.71**	**1.41**	**2.81**	**2.96**	**3.71**	**10.0**	**5.06**	**1.27**	**1.06**	**3.13**	**2.93**	**2.26**
Radiological	Uranium-235/236	8	39	pCi/g	**11.9**	**12.4**	**0.313**	**0.208**	**0.175**	**0.191**	**0.0337 ##**	**0.0669 ##**	**0.110 ##**	**0.097 ##**	**0.469**	**0.394**	**0.0959 ##**	**0.0461 ##**	**0.131 ##**	**0.0487 ##**	**0.179**
Radiological	Uranium-238	14	179	pCi/g	**37.4**	**44.6**	**2.51**	**1.55**	**1.16**	**2.51**	**1.28**	**1.75**	**1.69**	**2.00**	**3.28**	**2.52**	**1.56**	**1.09**	**1.81**	**1.73**	**1.59**
Radiological	Uranium-234			ug/kg	**38.9 J**	**57.2 J**	< 24.3	< 18.4	< 15.1	< 20.4	< 21.1	< 14.5	< 12.4	< 19.9	< 18.4	< 16.5	< 14.7	< 14.1	< 17.6	< 16.3	< 14.0
Radiological	Uranium-235			ug/kg	**3970**	**6770**	**86.4**	**21.4 J**	**17.6 J**	**85.9**	**21 J**	**45.6**	**18.1**	**72.9**	**195**	**305**	**21.8**	**16.5 J**	**44.9**	**36.3**	**36.8**
Radiological	Uranium-238			ug/kg	**90900**	**161000**	**6030**	**2490**	**2490**	**5410**	**2690**	**3400**	**2220**	**4280**	**8370**	**14200**	**2750**	**2230**	**3650**	**3770**	**3920**
Radiological	Total Uranium			ug/kg	**94900**	**168000**	**6120**	**2510**	**2510**	**5500**	**2710**	**3450**	**2240**	**4350**	**8570**	**14500**	**2770**	**2250**	**3690**	**3810**	**3960**
Chemical	Fluoride			mg/kg	**395**	**1560**	**455**	**287**	**230**	**394**	**392**	**286**	**118**	**480**	**576**	**248**	**117**	**67.3**	**397**	**336**	**158**
Chemical	Nitrate as N			mg/kg	**0.30**	< 0.20	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	**1.1**	< 0.50	< 0.50	< 0.50		**0.62**	< 0.50	< 0.50
Chemical	Ammonia			mg/kg	**171**	**39.3**	**1.14 J**	**2.56**	**2.61**	**2.26**	**3.43**	**3.13**	**3.07**	**3.88**	**4.21**	**1.57 J**	**1.56**	**6.63**	**2.20**	**4.26**	**2.09**
Metals	Aluminum			ug/kg	**1860**	**5790**	**25900**	**19800**	**17000**	**24000**	**21700**	**20400**	**15500**	**15200**	**17600**	**23200**	**18200**	**15500**	**23600**	**24200**	**24800**
Metals	Antimony			ug/kg	**4.79 J**	**6.81 J**	< 4.85	< 3.53	< 2.97	< 4.08	< 4.41	< 28.4	< 25.6	< 4.15	< 3.44	< 35.6	< 30.3	< 2.73	< 3.59	< 32.8	< 29.9
Metals	Arsenic			ug/kg	< 15.4	< 19.7	**4.24 J**	**2.31 J**	**2.45 J**	**3.6 J**	**2.49 J**	**4.51**	**2.85 J**	**2.47 J**	**3.35 J**	**5.43**	**3.27 J**	**3.14 J**	**4.41 J**	**4.44 J**	**3.07 J**
Metals	Barium			ug/kg	**723**	**1220**	**207**	**157**	**147**	**174**	**140**	**213**	**239**	**168**	**203**	**167**	**163**	**135**	**174**	**170**	**203**
Metals	Beryllium			ug/kg	< 2.57	< 3.28	**1.83**	**1.86**	**2.13**	**1.99**	**2.32**	**1.69**	**1.67**	**1.35**	**1.53**	**1.83**	**2.07**	**1.63**	**1.96**	**2.7**	**2.05**
Metals	Cadmium			ug/kg	< 2.57	< 3.28	< 1.21	< 0.884	< 0.743	< 1.02	< 1.1	< 0.709	< 0.641	< 1.04	< 0.86	< 0.89	< 0.756	< 0.682	< 0.898	< 0.82	< 0.747
Metals	Calcium			ug/kg	**253000**	**284000**	**809**	**441**	**272**	**424**	**448**	**796**	**679**	**1140**	**742**	**292**	**182**	**150**	**843**	**762**	**490**
Metals	Chromium			ug/kg	**78.9**	**75.3**	**33.8**	**28.3**	**25.3**	**32.3**	**28.3**	**26.4**	**22.8**	**22.6**	**25.9**	**28.3**	**25.6**	**23.4**	**28.7**	**32.7**	**33.5**
Metals	Cobalt			ug/kg	**2 J**	**2.91 J**	**8.36**	**5.92**	**3.7**	**8.26**	**4.64**	**14.3**	**16.4**	**9.95**	**10**	**11.4**	**13.8**	**6.84**	**15.9**	**17.5**	**17.4**
Metals	Copper			ug/kg	**20.9**	**36.4**	**27.9**	**17.6**	**13.1**	**24.1**	**17**	**20.5**	**17.3**	**19.6**	**22.3**	**21.9**	**19.3**	**12.9**	**26.3**	**24.8**	**23.2**
Metals	Iron			ug/kg	**4310**	**29100**	**17600**	**12400**	**9170**	**15100**	**10000**	**28600**	**30000**	**18600**	**21300**	**29300**	**29100**	**16700**	**32800**	**32200**	**30300**
Metals	Lead			ug/kg	**18.5**	**91.7**	**28.2**	**15.2**	**11.3**	**41.8**	**13.4**	**22.9**	**14.1**	**24.1**	**40**	**20.1**	**11.7**	**11.8**	**31.3**	**22.3**	**12.2**
Metals	Magnesium			ug/kg	**17200**	**16500**	**2800**	**2180**	**971**	**3240**	**1400**	**3080**	**3110**	**2440**	**2570**	**3060**	**3590**	**1370**	**3110**	**4000**	**4450**
Metals	Manganese			ug/kg	**102**	**149**	**223**	**128**	**66.2**	**207**	**122**	**788**	**1090**	**410**	**323**	**295**	**281**	**176**	**906**	**1020**	**461**
Metals	Mercury			ug/kg	**287**	**526**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals	Nickel			ug/kg	**255**	**143**	**15.2**	**10.8**	**8.4**	**13.4**	**9.48**	**12.2**	**10.7**	**11.2**	**13.9**	**12.9**	**12.1**	**7.21**	**13.2**	**14.2**	**14.7**
Metals	Potassium			ug/kg	**308**	**3650**	**1400**	**1060**	**297**	**1580**	**509**	**1760**	**1610**	**1090**	**1090**	**1460**	**1700**	**443**	**1320**	**1290**	**2130**
Metals	Selenium			ug/kg	**2.58 J**	**3.69 J**	< 7.27	< 5.3	< 4.46	< 6.12	< 6.61	< 4.26	< 3.84	**1.17 J**	**0.904 J**	< 5.34	< 4.54	< 4.09	**1.05 J**	**1.23 J**	< 4.48
Metals	Silver			ug/kg	**10.5**	**27.6**	< 12.1	< 8.84	< 7.43	< 10.2	< 11	< 7.09	< 6.41	< 10.4	< 8.6	< 8.9	< 7.56	< 6.82	< 8.98	< 8.2	< 7.47
Metals	Sodium			ug/kg	**6330**	**7260**	**125**	**97.1**	**77.7**	**95.9**	**110**	**52.7**	**52.6**	**68.2**	**89.1**	**85.7**	**59.7**	**48.8**	**64.9**	**62.5**	**59.2**
Metals	Thallium			ug/kg	< 10.3	< 13.1	< 48.5	< 35.3	< 29.7	< 40.8	< 44.1	< 28.4	< 25.6	< 41.5	< 34.4	< 35.6	< 30.3	< 27.3	< 35.9	< 32.8	< 29.9
Metals	Vanadium			ug/kg	**5.71**	**5.67**	**85.6**	**58.6**	**40.3**	**71.9**	**51.2**	**73.4**	**61.9**	**53.5**	**64.3**	**81.1**	**74.4**	**56.4**	**86.1**	**89.1**	**74.1**
Metals	Zinc			ug/kg	**523**	**403**	**69.1**	**43.5**	**29.8**	**68.8**	**31.5**	**56.2**	**45.9**	**62.4**	**60.7**	**56.8**	**52.6**	**27.6**	**56.5**	**60.9**	**53.1**
SVOCs	1,1'-Biphenyl			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2,4,5-Trichlorophenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2,4,6-Trichlorophenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2,4-Dichlorophenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2,4-Dimethylphenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2,4-Dinitrophenol			ug/kg	< 320	< 320	< 1600	< 320	NA	< 1600	< 1600	< 320	< 310	< 1600	< 1600	< 320	< 320	NA	< 1600	< 310	< 320
SVOCs	2,4-Dinitrotoluene			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	2,6-Dinitrotoluene			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	2-Chloronaphthalene			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2-Chlorophenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2-Methylnaphthalene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	2-Methylphenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	2-Nitroaniline			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	2-Nitrophenol			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	3,3'-Dichlorobenzidine			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	3-Nitroaniline			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	4,6-Dinitro-2-methylphenol			ug/kg	< 320	< 320	< 1600	< 320	NA	< 1600	< 1600	< 320	< 310	< 1600	< 1600	< 320	< 320	NA	< 1600	< 310	< 320
SVOCs	4-Bromophenyl phenyl ether			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	4-Chloro-3-methylphenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	4-Chloroaniline			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	4-Chlorophenyl phenyl ether			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	4-Methylphenol			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	4-Nitroaniline			ug/kg	< 130	< 130	< 640	< 130	NA	< 620	< 620	< 130	< 120	< 640	< 620	< 130	< 130	NA	< 630	< 120	< 130
SVOCs	4-Nitrophenol			ug/kg	< 320	< 320	< 1600	< 320	NA	< 1600	< 1600	< 320	< 310	< 1600	< 1600	< 320	< 320	NA	< 1600	< 310	< 320
SVOCs	Acenaphthene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Acenaphthylene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Acetophenone			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
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				Sample ID	SED-35	SED-36	SED-36	SED-37	SED-37	SED-37-DUP	SED-38	SED-39	SED-39	SED-40	SED-41	SED-42	SED-43	SED-44	SED-45	SED-46	SED-47
				Depth	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/26/2019	11/26/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89400	pCi/g	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	0.00 #	16.5 ##	0.00 #	0.00 #	0.995 ##	5.94 ##	0.00 #	6.23 ##	2.83 ##	0.00 #	0.00 #	0.00 #
Radiological	Uranium-233/234	13	3310	pCi/g	1.59	4.40	1.50	4.88	2.04	2.33	3.26	1.86	1.90	1.72	6.12	47.5	8.86	5.86	4.02	3.18	2.57
Radiological	Uranium-235/236	8	39	pCi/g	0.0433 ##	0.210	0.0881	0.254	0.149	0.0456 ##	0.204	0.0122 ##	0.131	0.0394 ##	0.285	2.32	0.377	0.268	0.179	0.232	0.091 ##
Radiological	Uranium-238	14	179	pCi/g	1.66	2.38	1.05	1.78	1.62	1.38	1.68	1.70	1.24	1.41	2.23	12.1	2.62	2.20	2.15	1.46	1.98
Radiological	Uranium-234			ug/kg	< 13.2	< 14.2	< 13.5	< 15.9	< 14.5	< 15.0	< 34.6	< 15.9	NA	< 17.4	< 26.9	< 52.5	< 55.9	< 32.5	< 34.5	< 30.6	< 41.0
Radiological	Uranium-235			ug/kg	28.9	70.2	19.1	102	67.4	31.7	31.8 J	26.4	NA	28.4	17.8 J	156	862	238	100	48.9	44 J
Radiological	Uranium-238			ug/kg	3630	3970	1990	4850	3930	2910	3380	3040	NA	3020	2390	7220	31300	9690	4920	3190	2560
Radiological	Total Uranium			ug/kg	3660	4040	2010	4950	4000	2940	3410	3070	NA	3050	2410	7380	32200	9930	5020	3240	2600
Chemical	Fluoride			mg/kg	80.1	153	99.1	451	127	178	576	222	NA	242	466	928	774	389	586	371	1540
Chemical	Nitrate as N			mg/kg	< 0.50	< 0.50	0.55	< 0.50	< 0.50	< 0.50	0.66	< 0.50	< 0.5	< 0.50	0.63	0.83	0.50	< 0.50	0.82	0.62	0.59
Chemical	Ammonia			mg/kg	4.29	< 1.44	< 1.32	1.35 J	1.60	0.858 J	5.17	1.90	NA	1.65 J	2.68 J	5.15 J	14.9	3.04 J	7.90	3.41	6.02
Metals	Aluminum			ug/kg	22100	15300	16100	14800	18700	19000	23200	30400	NA	20800	27100	27500	15200	27000	19500	25100	22000
Metals	Antimony			ug/kg	< 28	< 2.89	< 26.9	< 3.27	< 28.3	< 30	< 6.96	< 3.32	NA	< 3.48	< 5.62	< 10.3	< 11.5	< 7.06	< 6.5	< 6.1	< 8.72
Metals	Arsenic			ug/kg	3.65 J	2.9 J	3.85 J	3.34 J	3.7 J	3.88 J	4.3 J	4.05 J	NA	3.47 J	4.25 J	6.15 J	3.57 J	4.38 J	2.38 J	3.99 J	4.19 J
Metals	Barium			ug/kg	178	106	123	122	134	142	206	167	NA	137	214	220	105	207	150	103	188
Metals	Beryllium			ug/kg	2.38	1.08	1.43	1.06	1.38	1.5	2.39	3	NA	1.47	2.01	1.67 J	0.858 J	2.32	1.32 J	1.29 J	1.32 J
Metals	Cadmium			ug/kg	< 0.701	< 0.723	< 0.673	< 0.817	< 0.706	< 0.749	< 1.74	< 0.83	NA	< 0.87	< 1.4	< 2.58	< 2.87	< 1.76	< 1.62	< 1.53	< 2.18
Metals	Calcium			ug/kg	542	256	158	394	346	335	914	297	NA	429	754	1520	813	679	1170	620	737
Metals	Chromium			ug/kg	27.3	19.3	19.7	18.5	22.6	23	24.9	35.4	NA	26.5	29.4	31.4	15.6	29.5	23.6	26	27
Metals	Cobalt			ug/kg	19.1	9.08	11.7	6.86	8.53	8.88	14.3	13	NA	10	26.7	17.8	4.78	10.2	7.42	5.51	7.78
Metals	Copper			ug/kg	24.3	14.9	17.1	14.7	18.2	19.4	22.1	24.6	NA	19.6	25.8	30.9	16.7	21.7	18.9	19.6	22.3
Metals	Iron			ug/kg	35600	22000	30400	20500	25700	26800	18400	19900	NA	16100	24300	25100	8080	17100	11900	12100	13200
Metals	Lead			ug/kg	13.6	17.5	20.5	30.1	20.7	22	13.6	21.1	NA	20.4	21.9	105	16	18.8	40.4	33.8	43.1
Metals	Magnesium			ug/kg	4410	2320	2840	2010	2560	2640	2260	3330	NA	2700	2610	1910	1200	2080	2030	1620	1980
Metals	Manganese			ug/kg	819	260	322	215	219	230	498	210	NA	250	395	463	131	254	224	104	242
Metals	Mercury			ug/kg	NA	NA	NA	NA	NA	NA	72.9 J	56.8 J	NA	55.5 J	72.4 J	119 J	< 273	69.9 J	107 J	< 141	106 J
Metals	Nickel			ug/kg	13.7	8.87	9.48	8.54	10	10.2	13.9	16.9	NA	11.3	16.9	16.8	10.2	17.5	11.8	10.6	12.9
Metals	Potassium			ug/kg	2050	1200	1400	1050	1130	1160	1210	1400	NA	1420	1580	1150	684	1230	1010	946	1080
Metals	Selenium			ug/kg	< 4.2	< 4.34	< 4.04	0.899 J	< 4.24	< 4.5	< 10.4	< 4.98	NA	< 5.22	< 8.43	< 15.5	< 17.2	< 10.6	< 9.74	< 9.15	< 13.1
Metals	Silver			ug/kg	< 7.01	< 7.23	< 6.73	< 8.17	< 7.06	< 7.49	< 17.4	< 8.3	NA	< 8.7	< 14	< 25.8	< 2.87	< 17.6	< 16.2	< 15.3	< 2.18
Metals	Sodium			ug/kg	58.9	50.9	57.9	47	51	60.2	83.1 J	59.9	NA	48.5	69 J	88.6 J	83.9 J	80.7 J	126	105	129
Metals	Thallium			ug/kg	< 28	< 28.9	< 26.9	< 32.7	< 28.3	< 30	< 69.6	< 33.2	NA	< 34.8	< 56.2	< 103	< 11.5	< 70.6	< 65	< 61	< 87.2
Metals	Vanadium			ug/kg	82.1	50.3	60.2	48.5	67.2	67.9	54.3	71.2	NA	62.7	85.8	95.1	36.5	68.8	49.9	68.1	50.3
Metals	Zinc			ug/kg	51.3	39	40.7	37.2	41.1	42	54.5	72.1	NA	49.2	68.9	81	53	56.1	49.1	38.6	49.6
SVOCs	1,1'-Biphenyl			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2,4,5-Trichlorophenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2,4,6-Trichlorophenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2,4-Dichlorophenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2,4-Dimethylphenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2,4-Dinitrophenol			ug/kg	< 320	< 320	< 320	< 320	< 320	< 310	< 1600	< 330	< 330	< 1600	< 330	< 320	< 310	< 320	< 320	< 320	< 320
SVOCs	2,4-Dinitrotoluene			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	2,6-Dinitrotoluene			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	2-Chloronaphthalene			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2-Chlorophenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2-Methylnaphthalene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	2-Methylphenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	2-Nitroaniline			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	2-Nitrophenol			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	3,3'-Dichlorobenzidine			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	3-Nitroaniline			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	4,6-Dinitro-2-methylphenol			ug/kg	< 320	< 320	< 320	< 320	< 320	< 310	< 1600	< 330	< 330	< 1600	< 330	< 320	< 310	< 320	< 320	< 320	< 320
SVOCs	4-Bromophenyl phenyl ether			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	4-Chloro-3-methylphenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	4-Chloroaniline			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	4-Chlorophenyl phenyl ether			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	4-Methylphenol			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	4-Nitroaniline			ug/kg	< 130	< 120	< 130	< 130	< 130	< 120	< 640	< 130	< 130	< 630	< 130	< 130	< 120	< 130	< 130	< 130	< 120
SVOCs	4-Nitrophenol			ug/kg	< 320	< 320	< 320	< 320	< 320	< 310	< 1600	< 330	< 330	< 1600	< 330	< 320	< 310	< 320	< 320	< 320	< 320
SVOCs	Acenaphthene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Acenaphthylene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Acetophenone			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-48	SED-48-DUP	SED-49	SED-50	SED-51	SED-51	SED-52	SED-52	SED-53	SED-53	SED-54	SED-54	SED-55	SED-55	SED-56	SED-56-DUP	SED-56
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in
				Date	11/26/2019	11/26/2019	11/26/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Radiological	Technetium-99	19	89400	pCi/g	0.00 #	0.00 #	**0.910 ##**	0.00 #	**4.89 ##**	0.00 #	0.00 #	0.00 #	0.00 #	**1.51 ##**	0.00 #	**6.19 ##**	0.00 #	**2.53 ##**	0.00 #	0.00 #	< 50.0
Radiological	Uranium-233/234	13	3310	pCi/g	**2.43**	**4.59**	**3.64**	**2.10**	**1.27**	**1.77**	**1.88**	**2.15**	**2.06**	**1.78**	**1.48**	**2.05**	**1.62**	**2.02**	**2.82**	**1.89**	**1.89**
Radiological	Uranium-235/236	8	39	pCi/g	**0.0144 ##**	**0.215**	**0.104 ##**	**0.178 ##**	**0.0695 ##**	**0.308 ##**	**0.0494 ##**	**0.194**	**0.0708 ##**	**0.119 ##**	**0.120 ##**	0.00 #	**0.155**	**0.214**	**0.115 ##**	**0.0276 ##**	< 0.500
Radiological	Uranium-238	14	179	pCi/g	**1.62**	**2.11**	**1.86**	**1.42**	**1.15**	**1.72**	**1.45**	**1.45**	**2.34**	**1.36**	**1.87**	**1.74**	**1.62**	**1.40**	**2.11**	**1.72**	**1.72**
Radiological	Uranium-234			ug/kg	< 25.8	< 29.6	< 37.2	< 31.4	< 31.2	< 28.9	< 21.8	< 23.3	< 17.3	< 14.1	< 37.1	< 25.3	< 18.3	< 16.0	< 17.2	< 18.8	< 16.4
Radiological	Uranium-235			ug/kg	**40.3**	**37.4 J**	**81.9**	**72.1**	**28.2 J**	**20.6 J**	**26.8 J**	**29.5 J**	**29.2**	**24.7**	**22.6 J**	**26 J**	**25.4 J**	**23.2**	**23 J**	**24.5 J**	**21.7 J**
Radiological	Uranium-238			ug/kg	**3140**	**2650**	**4840**	**4470**	**2610**	**2450**	**2530**	**2690**	**3200**	**3290**	**2870**	**2990**	**3450**	**3230**	**3100**	**3440**	**2970**
Radiological	Total Uranium			ug/kg	**3180**	**2690**	**4920**	**4540**	**2640**	**2470**	**2560**	**2720**	**3230**	**3310**	**2890**	**3020**	**3480**	**3250**	**3120**	**3460**	**2990**
Chemical	Fluoride			mg/kg	**806**	**1080**	**209**	**750**	**692**	**401**	**465**	**271**	**387**	**196**	**854**	**536**	**321**	**223**	**449**	**325**	**244**
Chemical	Nitrate as N			mg/kg	**0.63**	**0.70**	**0.58**	**0.53**	**0.72**	**0.51**	< 0.50	**0.61**	< 0.50	< 0.50	**0.63**	**0.68**	< 0.50	< 0.50	**0.52**	**0.74**	< 0.50
Chemical	Ammonia			mg/kg	**2.94**	**3.46**	**5.44**	**4.67**	**2.77 J**	**2.96**	**1.48 J**	**1.69 J**	**0.838 J**	**0.607 J**	**1.93 J**	**1.01 J**	< 1.88	< 1.76	< 1.89	< 1.96	**0.690 J**
Metals	Aluminum			ug/kg	**26400**	**20300**	**14300**	**22500**	**20300**	**19900**	**24300**	**23900**	**23100**	**24100**	**27300**	**26800**	**29400**	**29300**	**27000**	**27200**	**27300**
Metals	Antimony			ug/kg	< 5.01	< 5.68	< 7.62	< 6.52	< 5.8	< 5.66	< 4.58	< 4.27	< 3.46	< 31.3	< 7.44	< 5.3	< 3.66	< 3.04	< 3.6	< 3.47	< 3.26
Metals	Arsenic			ug/kg	**3.85 J**	**3.38 J**	**2.12 J**	**3.64 J**	**2.25 J**	**3.3 J**	**4.4 J**	**3.09 J**	**3.44 J**	**3.75 J**	**6.54 J**	**4.47 J**	**4.6 J**	**4.56**	**4.54 J**	**4.87 J**	**5.26**
Metals	Barium			ug/kg	**154**	**146**	**69.2**	**178**	**98**	**191**	**144**	**146**	**146**	**151**	**144**	**124**	**153**	**159**	**166**	**170**	**190**
Metals	Beryllium			ug/kg	**1.35**	**1.19 J**	**0.727 J**	**1.62 J**	**1.17 J**	**1.93**	**1.6**	**1.93**	**1.77**	**2.52**	**1.61 J**	**1.64**	**1.88**	**3.39**	**2.21**	**2.28**	**4.25**
Metals	Cadmium			ug/kg	< 1.25	< 1.42	< 1.9	< 1.63	< 1.45	< 1.41	< 1.15	< 1.07	< 0.865	< 0.782	< 1.86	< 1.32	< 0.914	< 0.759	< 0.899	< 0.867	< 0.815
Metals	Calcium			ug/kg	**408**	**435**	**258**	**1120**	**335**	**304**	**452**	**317**	**523**	**337**	**348**	**187**	**191**	**190**	**289**	**297**	**202**
Metals	Chromium			ug/kg	**26.9**	**23**	**13.9**	**25.7**	**25.1**	**26.1**	**29.7**	**34.6**	**30.2**	**32.5**	**34.5**	**33.4**	**36.4**	**35.9**	**33.4**	**34.1**	**33**
Metals	Cobalt			ug/kg	**7.53**	**6.39**	**3.57**	**10.5**	**5.3**	**11.5**	**7.14**	**10.3**	**8.5**	**13.7**	**6.78**	**7.1**	**8.47**	**15.6**	**8.86**	**9.36**	**13.4**
Metals	Copper			ug/kg	**26.4**	**26.1**	**11.3**	**25.8**	**19**	**20.8**	**20**	**19.6**	**23.5**	**21.8**	**25.6**	**21.1**	**24.3**	**26.8**	**25.4**	**26.4**	**28.6**
Metals	Iron			ug/kg	**12400**	**9320**	**6750**	**15300**	**9550**	**16100**	**17000**	**18500**	**15400**	**25200**	**18100**	**15800**	**19100**	**21900**	**17100**	**18700**	**21400**
Metals	Lead			ug/kg	**37.4**	**80**	**11.5**	**32.1**	**24.2**	**17**	**23.9**	**23.4**	**26.9**	**16.9**	**29.8**	**25.9**	**33.9**	**17**	**31.5**	**30**	**18.5**
Metals	Magnesium			ug/kg	**1670**	**1250**	**1040**	**2440**	**1940**	**2810**	**2700**	**3020**	**2760**	**3810**	**2390**	**2700**	**2920**	**3650**	**2740**	**3040**	**3960**
Metals	Manganese			ug/kg	**249**	**286**	**75.9**	**368**	**128**	**261**	**156**	**186**	**258**	**281**	**127**	**114**	**175**	**264**	**173**	**194**	**250**
Metals	Mercury			ug/kg	**107 J**	**118 J**	**87.2 J**	**108 J**	< 148	< 130	**57.1 J**	**58.5 J**	**82.5 J**	**48.3 J**	**104 J**	**65.2 J**	**76.6 J**	**54.2 J**	**74.6 J**	**83.7**	**41 J**
Metals	Nickel			ug/kg	**11.6**	**9.87**	**6.89**	**13.8**	**9.14**	**12**	**11.9**	**11.6**	**11.6**	**13.2**	**12.1**	**12.6**	**13.5**	**15.5**	**13.5**	**13.9**	**17.5**
Metals	Potassium			ug/kg	**929**	**708**	**621**	**1060**	**1120**	**1560**	**1500**	**850**	**1350**	**1150**	**1310**	**1410**	**1370**	**834**	**1170**	**1280**	**1150**
Metals	Selenium			ug/kg	< 7.51	< 8.51	< 11.4	< 9.78	**2 J**	< 8.48	< 6.87	< 6.4	**1.26 J**	**1.2 J**	< 11.2	**1.34 J**	< 5.48	**1.24 J**	**1.3 J**	< 5.2	< 4.89
Metals	Silver			ug/kg	< 12.5	< 1.42	< 1.9	< 16.3	< 1.45	< 14.1	< 11.5	< 10.7	< 8.65	< 7.82	< 18.6	< 13.2	< 9.14	< 7.59	< 8.99	< 8.67	< 8.15
Metals	Sodium			ug/kg	**93.6**	**112**	**78.4 J**	**71.5 J**	**91.1**	**82.4**	**71.9**	**76.6**	**53.8**	**52.9**	**88 J**	**70.6**	**84.1**	**87**	**63.2**	**71.3**	**69.8**
Metals	Thallium			ug/kg	< 50.1	< 56.8	< 7.62	< 65.2	< 58	< 56.6	< 45.8	< 42.7	< 3.46	< 31.3	< 74.4	< 53	< 36.6	< 30.4	< 36	< 34.7	< 3.26
Metals	Vanadium			ug/kg	**65.9**	**57.7**	**32.4**	**62.1**	**54.3**	**64.8**	**71.2**	**81**	**71**	**87.6**	**77.1**	**78.9**	**93.2**	**86.2**	**81.8**	**86.9**	**79.8**
Metals	Zinc			ug/kg	**46.4**	**42.1**	**27**	**67.3**	**34.7**	**55.7**	**51.5**	**54.7**	**52.7**	**63.9**	**54.1**	**53.4**	**56.1**	**70.8**	**55.6**	**59.1**	**83.5**
SVOCs	1,1'-Biphenyl			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2,4,5-Trichlorophenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2,4,6-Trichlorophenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2,4-Dichlorophenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2,4-Dimethylphenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2,4-Dinitrophenol			ug/kg	< 320	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
SVOCs	2,4-Dinitrotoluene			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	2,6-Dinitrotoluene			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	2-Chloronaphthalene			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2-Chlorophenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2-Methylnaphthalene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	2-Methylphenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	2-Nitroaniline			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	2-Nitrophenol			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	3,3'-Dichlorobenzidine			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	3-Nitroaniline			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	4,6-Dinitro-2-methylphenol			ug/kg	< 320	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
SVOCs	4-Bromophenyl phenyl ether			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	4-Chloro-3-methylphenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	4-Chloroaniline			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	4-Chlorophenyl phenyl ether			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	4-Methylphenol			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	4-Nitroaniline			ug/kg	< 130	< 630	< 630	< 640	< 620	< 630	< 640	< 620	< 640	< 630	< 630	< 620	< 630	< 640	< 640	< 640	< 640
SVOCs	4-Nitrophenol			ug/kg	< 320	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
SVOCs	Acenaphthene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Acenaphthylene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Acetophenone			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
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				Sample ID	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	SED-17-DUP	SED-18	SED-19	SED-20	SED-21	SED-22	SED-23	SED-24	SED-25*	SED-26*
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/16/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019	7/16/2019	7/18/2019	7/18/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Anthracene			ug/kg	< 13	< 13	**14**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Atrazine			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Benz(a)anthracene			ug/kg	< 13	< 13	**170**	**13**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Benzaldehyde			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Benzo(a)pyrene			ug/kg	< 13	< 13	**290**	**20**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	**79**
SVOCs	Benzo(b)fluoranthene			ug/kg	< 13	< 13	**630**	**37**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	**150**
SVOCs	Benzo(g,h,i)perylene			ug/kg	< 13	< 13	**190**	**18**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Benzo(k)fluoranthene			ug/kg	< 13	< 13	**200**	**16**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Bis(2-chloroethoxy)methane			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Bis(2-chloroethyl)ether			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Bis(2-chloroisopropyl)ether			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Bis(2-ethylhexyl)phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Butyl benzyl phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Caprolactam			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Carbazole			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Chrysene			ug/kg	< 13	< 13	**310**	**21**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Dibenz(a,h)anthracene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Dibenzofuran			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Diethyl phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Dimethyl phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Di-n-butyl phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Di-n-octyl phthalate			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Fluoranthene			ug/kg	< 13	< 13	**570**	**36**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	**81**
SVOCs	Fluorene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Hexachlorobenzene			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Hexachlorobutadiene			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Hexachlorocyclopentadiene			ug/kg	< 320	< 330	< 320	< 310	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 320	< 310	< 320	< 1600
SVOCs	Hexachloroethane			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Indeno(1,2,3-cd)pyrene			ug/kg	< 13	< 13	**170**	**15**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Isophorone			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Naphthalene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Nitrobenzene			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	N-Nitrosodi-n-propylamine			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	N-Nitrosodiphenylamine			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Pentachlorophenol			ug/kg	< 320	< 330	< 320	< 310	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 320	< 310	< 320	< 1600
SVOCs	Phenanthrene			ug/kg	< 13	< 13	**130**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 64
SVOCs	Phenol			ug/kg	< 66	< 67	< 64	< 64	< 67	< 65	< 67	< 64	< 66	< 67	< 66	< 66	< 66	< 65	< 64	< 64	< 320
SVOCs	Pyrene			ug/kg	< 13	< 13	**450**	**28**	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	**82**
VOCs	(1-Methylethyl)-Benzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1,1-Trichloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1,2,2-Tetrachloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1,2-Trichloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1-Dichloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,1-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2,4-Trichlorobenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2-Dibromo-3-chloropropane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2-Dibromoethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2-Dichlorobenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2-Dichloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,2-Dichloropropane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,3-Dichlorobenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	1,4-Dichlorobenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	2-Butanone			ug/kg	< 25	**180**	< 24	< 17	< 15	< 16	< 19	< 19	< 18	**45**	**45**	< 25	**32**	< 28	< 17	NA	NA
VOCs	2-Hexanone			ug/kg	< 13	< 11	< 12	< 8.7	< 7.6	< 8.2	< 9.6	< 9.5	< 8.9	< 10	< 13	< 12	< 12	< 14	< 8.3	NA	NA
VOCs	4-Methyl-2-pentanone			ug/kg	< 13	< 11	< 12	< 8.7	< 7.6	< 8.2	< 9.6	< 9.5	< 8.9	< 10	< 13	< 12	< 12	< 14	< 8.3	NA	NA
VOCs	Acetone			ug/kg	**32**	**110**	**30**	**28**	< 15	< 16	< 19	< 19	< 18	**48**	**110**	**67**	**88**	**91**	**25**	NA	NA
VOCs	Benzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Bromodichloromethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Bromoform			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Bromomethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Carbon disulfide			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Carbon tetrachloride			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Chlorobenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Chloroethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-27**	SED-28**	SED-29	SED-29	SED-29	SED-30	SED-30	SED-31	SED-31	SED-32	SED-32	SED-33	SED-33	SED-33	SED-34	SED-34	SED-35
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	12 - 16 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	12-16 in	12 - 16 in	0 - 6 in	0 - 6 in
				Date	7/18/2019	7/18/2019	11/20/2019	11/20/2019	11/20/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/22/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Anthracene			ug/kg	< 13	**110**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Atrazine			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Benz(a)anthracene			ug/kg	< 13	**3400**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Benzaldehyde			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Benzo(a)pyrene			ug/kg	< 13	**3000**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Benzo(b)fluoranthene			ug/kg	< 13	**4600**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Benzo(g,h,i)perylene			ug/kg	< 13	**1800**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Benzo(k)fluoranthene			ug/kg	< 13	**1900**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Bis(2-chloroethoxy)methane			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Bis(2-chloroethyl)ether			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Bis(2-chloroisopropyl)ether			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Bis(2-ethylhexyl)phthalate			ug/kg	**91**	**270**	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Butyl benzyl phthalate			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Caprolactam			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Carbazole			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Chrysene			ug/kg	< 13	**3200**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Dibenz(a,h)anthracene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Dibenzofuran			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Diethyl phthalate			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Dimethyl phthalate			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Di-n-butyl phthalate			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Di-n-octyl phthalate			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Fluoranthene			ug/kg	< 13	**7100**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Fluorene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Hexachlorobenzene			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Hexachlorobutadiene			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Hexachlorocyclopentadiene			ug/kg	< 320	< 320	< 1600	< 320	NA	< 1600	< 1600	< 320	< 310	< 1600	< 1600	< 320	< 320	NA	< 1600	< 310	< 320
SVOCs	Hexachloroethane			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Indeno(1,2,3-cd)pyrene			ug/kg	< 13	**1600**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Isophorone			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Naphthalene			ug/kg	< 13	< 13	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Nitrobenzene			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	N-Nitrosodi-n-propylamine			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	N-Nitrosodiphenylamine			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Pentachlorophenol			ug/kg	< 320	< 320	< 1600	< 320	NA	< 1600	< 1600	< 320	< 310	< 1600	< 1600	< 320	< 320	NA	< 1600	< 310	< 320
SVOCs	Phenanthrene			ug/kg	< 13	**440**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
SVOCs	Phenol			ug/kg	< 64	< 65	< 330	< 65	NA	< 320	< 320	< 66	< 63	< 330	< 320	< 66	< 65	NA	< 330	< 64	< 65
SVOCs	Pyrene			ug/kg	< 13	**5600**	< 65	< 13	NA	< 63	< 64	< 13	< 13	< 65	< 63	< 13	< 13	NA	< 65	< 13	< 13
VOCs	(1-Methylethyl)-Benzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1,1-Trichloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1,2,2-Tetrachloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1,2-Trichloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1-Dichloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,1-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2,4-Trichlorobenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2-Dibromo-3-chloropropane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2-Dibromoethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2-Dichlorobenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2-Dichloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,2-Dichloropropane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,3-Dichlorobenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	1,4-Dichlorobenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	2-Butanone			ug/kg	NA	NA	< 21	< 18	< 24	**26**	**25**	< 16	< 17	**38**	**76**	< 20	**45**	NA	**28**	**28**	< 18
VOCs	2-Hexanone			ug/kg	NA	NA	< 10	< 8.9	< 12	< 11	< 12	< 8.0	< 8.3	< 12	< 11	< 10	< 11	NA	< 12	< 10	< 8.9
VOCs	4-Methyl-2-pentanone			ug/kg	NA	NA	< 10	< 8.9	< 12	< 11	< 12	< 8.0	< 8.3	< 12	< 11	< 10	< 11	NA	< 12	< 10	< 8.9
VOCs	Acetone			ug/kg	NA	NA	**410**	**420**	**370**	**380**	**530**	**410**	**440**	**450**	**440**	**490**	**400**	NA	**200**	**180**	**390**
VOCs	Benzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Bromodichloromethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Bromoform			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Bromomethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Carbon disulfide			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Carbon tetrachloride			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Chlorobenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Chloroethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-35	SED-36	SED-36	SED-37	SED-37	SED-37-DUP	SED-38	SED-39	SED-39	SED-40	SED-41	SED-42	SED-43	SED-44	SED-45	SED-46	SED-47
				Depth	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/26/2019	11/26/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Anthracene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Atrazine			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Benz(a)anthracene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**19**	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Benzaldehyde			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	**76**	< 64	< 64
SVOCs	Benzo(a)pyrene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**21**	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Benzo(b)fluoranthene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**28**	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Benzo(g,h,i)perylene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Benzo(k)fluoranthene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Bis(2-chloroethoxy)methane			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Bis(2-chloroethyl)ether			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Bis(2-chloroisopropyl)ether			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Bis(2-ethylhexyl)phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Butyl benzyl phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Caprolactam			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Carbazole			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Chrysene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**17**	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Dibenz(a,h)anthracene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Dibenzofuran			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Diethyl phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Dimethyl phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Di-n-butyl phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Di-n-octyl phthalate			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Fluoranthene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**28**	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Fluorene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Hexachlorobenzene			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Hexachlorobutadiene			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Hexachlorocyclopentadiene			ug/kg	< 320	< 320	< 320	< 320	< 320	< 310	< 1600	< 330	< 330	< 1600	< 330	< 320	< 310	< 320	< 320	< 320	< 320
SVOCs	Hexachloroethane			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Indeno(1,2,3-cd)pyrene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Isophorone			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Naphthalene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Nitrobenzene			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	N-Nitrosodi-n-propylamine			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	N-Nitrosodiphenylamine			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Pentachlorophenol			ug/kg	< 320	< 320	< 320	< 320	< 320	< 310	< 1600	< 330	< 330	< 1600	< 330	< 320	< 310	< 320	< 320	< 320	< 320
SVOCs	Phenanthrene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	< 13	< 13	< 13	< 13	< 13	< 13	< 13
SVOCs	Phenol			ug/kg	< 65	< 64	< 66	< 65	< 65	< 64	< 330	< 66	< 66	< 320	< 66	< 66	< 63	< 66	< 65	< 64	< 64
SVOCs	Pyrene			ug/kg	< 13	< 13	< 13	< 13	< 13	< 13	< 65	< 13	< 13	< 64	**27**	< 13	< 13	< 13	< 13	< 13	< 13
VOCs	(1-Methylethyl)-Benzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1,1-Trichloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1,2,2-Tetrachloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1,2-Trichloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1-Dichloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,1-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2,4-Trichlorobenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2-Dibromo-3-chloropropane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2-Dibromoethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2-Dichlorobenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2-Dichloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,2-Dichloropropane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,3-Dichlorobenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	1,4-Dichlorobenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	2-Butanone			ug/kg	< 17	< 18	< 20	< 20	< 18	< 18	< 24	< 19	< 19	< 21	< 26	< 27	< 29	< 29	**29**	< 26	**160**
VOCs	2-Hexanone			ug/kg	< 8.5	< 8.8	< 10	< 9.8	< 8.9	< 8.9	< 12	< 9.7	< 9.7	< 11	< 13	< 14	< 14	< 14	< 12	< 13	< 14
VOCs	4-Methyl-2-pentanone			ug/kg	< 8.5	< 8.8	< 10	< 9.8	< 8.9	< 8.9	< 12	< 9.7	< 9.7	< 11	< 13	< 14	< 14	< 14	< 12	< 13	< 14
VOCs	Acetone			ug/kg	**310**	**370**	**350**	**300**	**350**	**360**	**400**	< 19	< 19	**260**	**96**	**59**	**79**	**57**	**130**	**110**	**410**
VOCs	Benzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Bromodichloromethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Bromoform			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Bromomethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Carbon disulfide			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Carbon tetrachloride			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Chlorobenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Chloroethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-48	SED-48-DUP	SED-49	SED-50	SED-51	SED-51	SED-52	SED-52	SED-53	SED-53	SED-54	SED-54	SED-55	SED-55	SED-56	SED-56-DUP	SED-56
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in
				Date	11/26/2019	11/26/2019	11/26/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SVOCs	Anthracene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Atrazine			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Benz(a)anthracene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Benzaldehyde			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Benzo(a)pyrene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Benzo(b)fluoranthene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Benzo(g,h,i)perylene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Benzo(k)fluoranthene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Bis(2-chloroethoxy)methane			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Bis(2-chloroethyl)ether			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Bis(2-chloroisopropyl)ether			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Bis(2-ethylhexyl)phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Butyl benzyl phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Caprolactam			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Carbazole			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Chrysene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Dibenz(a,h)anthracene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Dibenzofuran			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Diethyl phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Dimethyl phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Di-n-butyl phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Di-n-octyl phthalate			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Fluoranthene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Fluorene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Hexachlorobenzene			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Hexachlorobutadiene			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Hexachlorocyclopentadiene			ug/kg	< 320	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
SVOCs	Hexachloroethane			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Indeno(1,2,3-cd)pyrene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Isophorone			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Naphthalene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Nitrobenzene			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	N-Nitrosodi-n-propylamine			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	N-Nitrosodiphenylamine			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Pentachlorophenol			ug/kg	< 320	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
SVOCs	Phenanthrene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
SVOCs	Phenol			ug/kg	< 65	< 330	< 320	< 330	< 320	< 320	< 330	< 320	< 330	< 330	< 330	< 320	< 320	< 330	< 330	< 330	< 330
SVOCs	Pyrene			ug/kg	< 13	< 65	< 64	< 66	< 63	< 64	< 66	< 64	< 65	< 65	< 65	< 63	< 64	< 65	< 66	< 65	< 66
VOCs	(1-Methylethyl)-Benzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1,1-Trichloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1,2,2-Tetrachloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1,2-Trichlor-1,2,2-trifluoroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1,2-Trichloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1-Dichloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,1-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2,4-Trichlorobenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2-Dibromo-3-chloropropane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2-Dibromoethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2-Dichlorobenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2-Dichloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,2-Dichloropropane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,3-Dichlorobenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	1,4-Dichlorobenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	2-Butanone			ug/kg	**39**	**23**	< 28	**190**	**43**	< 27	**31**	< 26	< 22	< 21	**42**	< 25	< 19	< 20	< 21	< 19	< 14
VOCs	2-Hexanone			ug/kg	< 11	< 10	< 14	< 13	< 13	< 13	< 12	< 13	< 11	< 10	< 13	< 13	< 9.7	< 9.8	< 10	< 9.7	< 7.1
VOCs	4-Methyl-2-pentanone			ug/kg	< 11	< 10	< 14	< 13	< 13	< 13	< 12	< 13	< 11	< 10	< 13	< 13	< 9.7	< 9.8	< 10	< 9.7	< 7.1
VOCs	Acetone			ug/kg	**220**	**280**	**300**	**370**	**330**	**180**	**100**	< 26	< 22	**170**	**330**	**39**	< 19	**200**	**220**	**23**	< 14
VOCs	Benzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Bromodichloromethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Bromoform			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Bromomethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Carbon disulfide			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Carbon tetrachloride			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Chlorobenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Chloroethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	SED-17-DUP	SED-18	SED-19	SED-20	SED-21	SED-22	SED-23	SED-24	SED-25*	SED-26*
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	7/17/2019	7/17/2019	7/17/2019	7/17/2019	7/16/2019	7/17/2019	7/18/2019	7/18/2019	7/16/2019	7/17/2019	7/16/2019	7/15/2019	7/15/2019	7/16/2019	7/16/2019	7/18/2019	7/18/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chloroform			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Chloromethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	cis-1,2-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	cis-1,3-Dichloropropene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Cyclohexane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Dibromochloromethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Dichlorodifluoromethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Ethylbenzene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Methyl acetate			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Methyl tert-butyl ether			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Methylcyclohexane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Methylene chloride			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Styrene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Tetrachloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	**5.5**	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Toluene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	trans-1,2-Dichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	trans-1,3-Dichloropropene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Trichloroethene			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Trichlorofluoromethane			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Vinyl chloride			ug/kg	< 6.3	< 5.6	< 6.1	< 4.4	< 3.8	< 4.1	< 4.8	< 4.8	< 4.5	< 5.2	< 6.5	< 6.2	< 6.1	< 7.1	< 4.2	NA	NA
VOCs	Xylenes, Total			ug/kg	< 13	< 11	< 12	< 8.7	< 7.6	< 8.2	< 9.6	< 9.5	< 8.9	< 10	< 13	< 12	< 12	< 14	< 8.3	NA	NA

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-27**	SED-28**	SED-29	SED-29	SED-29	SED-30	SED-30	SED-31	SED-31	SED-32	SED-32	SED-33	SED-33	SED-33	SED-34	SED-34	SED-35
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	12 - 16 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	12-16 in	12 - 16 in	0 - 6 in	0 - 6 in
				Date	7/18/2019	7/18/2019	11/20/2019	11/20/2019	11/20/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/21/2019	11/22/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chloroform			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Chloromethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	cis-1,2-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	cis-1,3-Dichloropropene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Cyclohexane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Dibromochloromethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Dichlorodifluoromethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Ethylbenzene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Methyl acetate			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Methyl tert-butyl ether			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Methylcyclohexane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Methylene chloride			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Styrene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Tetrachloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Toluene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	trans-1,2-Dichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	trans-1,3-Dichloropropene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Trichloroethene			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Trichlorofluoromethane			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Vinyl chloride			ug/kg	NA	NA	< 5.1	< 4.5	< 6.0	< 5.3	< 6.1	< 4.0	< 4.2	< 5.9	< 5.4	< 5.0	< 5.6	NA	< 5.9	< 5.2	< 4.4
VOCs	Xylenes, Total			ug/kg	NA	NA	< 10	< 8.9	< 12	< 11	< 12	< 8.0	< 8.3	< 12	< 11	< 10	< 11	NA	< 12	< 10	< 8.9

Table A3
Sediment Analytical Results
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Hopkins, SC

				Sample ID	SED-35	SED-36	SED-36	SED-37	SED-37	SED-37-DUP	SED-38	SED-39	SED-39	SED-40	SED-41	SED-42	SED-43	SED-44	SED-45	SED-46	SED-47
				Depth	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in
				Date	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/22/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/25/2019	11/26/2019	11/26/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chloroform			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Chloromethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	cis-1,2-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	cis-1,3-Dichloropropene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Cyclohexane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Dibromochloromethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Dichlorodifluoromethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Ethylbenzene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Methyl acetate			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Methyl tert-butyl ether			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Methylcyclohexane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Methylene chloride			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Styrene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Tetrachloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Toluene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	trans-1,2-Dichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	trans-1,3-Dichloropropene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Trichloroethene			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Trichlorofluoromethane			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Vinyl chloride			ug/kg	< 4.3	< 4.4	< 5.0	< 4.9	< 4.5	< 4.4	< 6	< 4.9	< 4.9	< 5.3	< 6.5	< 6.8	< 7.2	< 7.2	< 6.1	< 6.5	< 6.9
VOCs	Xylenes, Total			ug/kg	< 8.5	< 8.8	< 10	< 9.8	< 8.9	< 8.9	< 12	< 9.7	< 9.7	< 11	< 13	< 14	< 14	< 14	< 12	< 13	< 14

Table A3
Sediment Analytical Results
Westinghouse Columbia Fuel Fabrication Facility
Hopkins, SC

				Sample ID	SED-48	SED-48-DUP	SED-49	SED-50	SED-51	SED-51	SED-52	SED-52	SED-53	SED-53	SED-54	SED-54	SED-55	SED-55	SED-56	SED-56-DUP	SED-56
				Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	6 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	6 - 12 in
				Date	11/26/2019	11/26/2019	11/26/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	11/27/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Group	Analyte	RUSL	IUSL	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs	Chloroform			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Chloromethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	cis-1,2-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	cis-1,3-Dichloropropene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Cyclohexane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Dibromochloromethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Dichlorodifluoromethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Ethylbenzene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Methyl acetate			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	**12**	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Methyl tert-butyl ether			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Methylcyclohexane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Methylene chloride			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Styrene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Tetrachloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Toluene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	**8.7**	< 6.7	**10**	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	trans-1,2-Dichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	trans-1,3-Dichloropropene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Trichloroethene			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Trichlorofluoromethane			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Vinyl chloride			ug/kg	< 5.3	< 5.2	< 7.1	< 6.3	< 6.6	< 6.7	< 6.2	< 6.4	< 5.4	< 5.2	< 6.6	< 6.3	< 4.9	< 4.9	< 5.2	< 4.8	< 3.5
VOCs	Xylenes, Total			ug/kg	< 11	< 10	< 14	< 13	< 13	< 13	< 12	< 13	< 11	< 10	< 13	< 13	< 9.7	< 9.8	< 10	< 9.7	< 7.1

Notes:
DUP - field duplicate sample
*** - sludge sample collected from the Sanitary Lagoon**
**** - sludge sample collected from the East Lagoon**
RUSL - Residential Use Screening Level (NUREG 1757, Appendix H)
IUSL - Industrial Use Screening Level (NUREG 1757, Appendix H)
pCi/g - picocuires per gram
 # - value is reported as a negative number
- value is below minimum detectable concentration
Bold concentrations indicate detections
Concentrations in shaded cells exceed their RUSL/IUSL
ug/kg - micrograms per kilogram
NA - not analyzed
mg/kg - milligrams per kilogram
SVOCs - semivolatile organic compounds
VOCs - volatile organic compounds

Appendix B
Leidos Technical Basis Document

Technical Basis Document

Sediment Sampling and Sediment Transect Results for the Westinghouse Columbia Fuel Fabrication Facility (WCFFF)

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Background

In July of 2019, the Westinghouse Columbia Fuel Fabrication Facility (WCFFF) collected 18 surficial (top six inches) sediment samples from areas of the site, including the on-site ditches, Sanitary Lagoon, East Lagoon, and Mill Creek. It was expected that samples from the Sanitary Lagoon, and East Lagoon would contain uranium (U), as these are active work areas within the WCFFF, and are known to be impacted. Additionally, one location within a storm water ditch, two locations in Upper Sunset Lake and one location in Lower Sunset Lake were identified to contain U concentrations above the residential use screening level (NUREG 1757, Vol. 2, Rev. 1, Appendix H), but below industrial use screening levels. These samples were collected from locations on the WCFFF property; therefore, the identification of U concentrations in the sediment does not pose any undue risk to public health and safety.

A follow up sediment sampling campaign was conducted in November of 2019. Westinghouse collected sediment samples from Mill Creek along ten transects with an additional 28 sediment sampling locations, to obtain additional sediment quality data. Generally, there were three sample locations per transect; two within a few feet of the edges of the Mill Creek floodplain and one in the presumed middle of the flow channel. In cases where Mill Creek is significantly wider due to impoundment, four sediment sample locations were collected along the transect. Sediment samples above the Entrance Dike (SED 51 through SED-56) and below the Lower Sunset Lake Dike (SED-29 through SED-37) were collected to a total depth of 12 inches. In a few locations, the sample core was up to 16 inches in length.

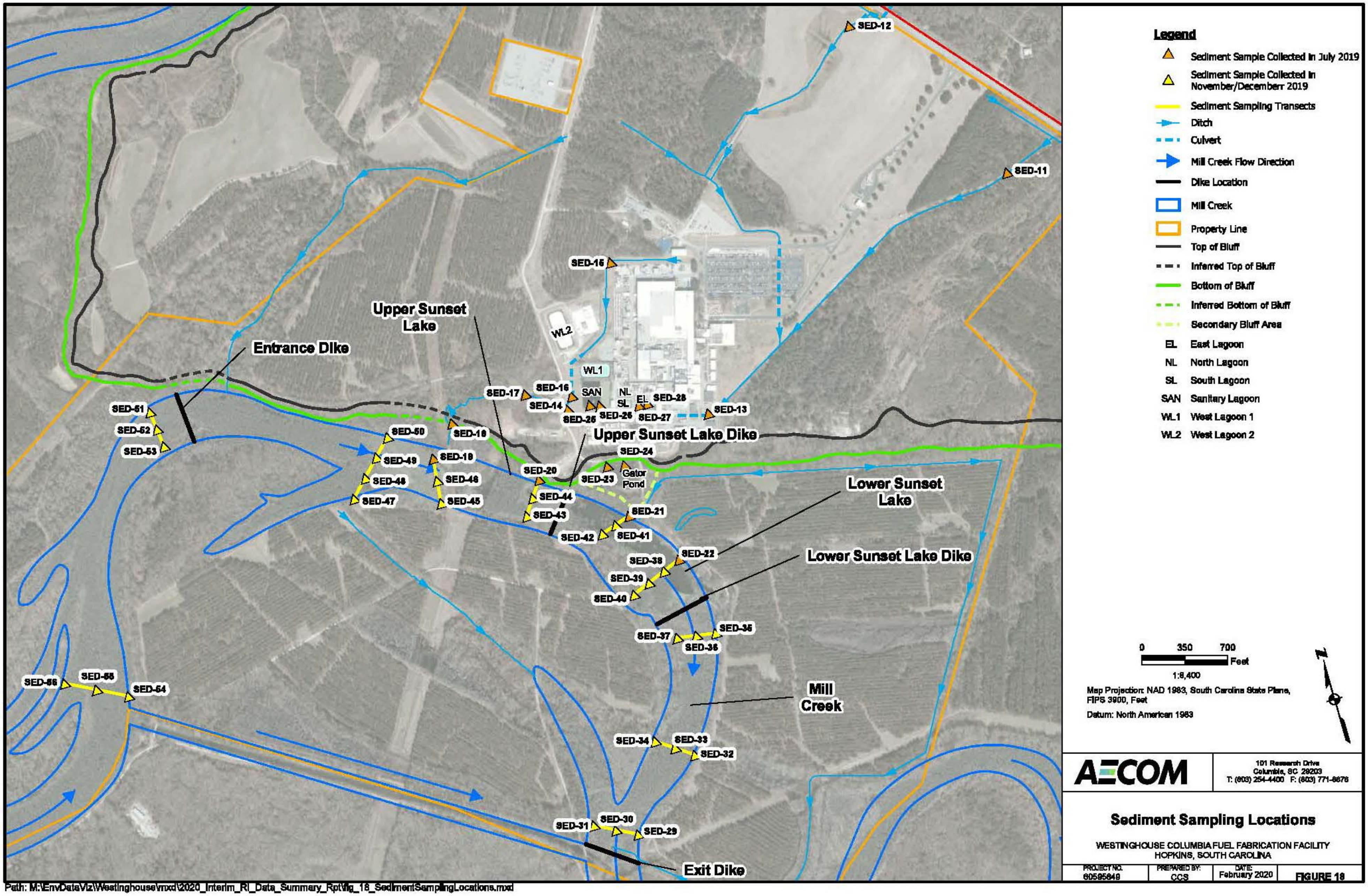
The sediment transect sampling locations are shown on Figure 18 from the Interim Remedial Investigation (RI) Data Summary Report (LTR-RAC-20-25), and are presented in Figure 1 of this report.

Upstream Areas

Sediment samples were collected at eight locations to assess background sediment quality. These sediment samples were collected at locations that are upstream of the surface water flow from the site, where only naturally occurring radioactivity is expected to be present in the sediment. Locations SED-11 and SED-12 were each collected from a storm water ditch and are representative of the naturally occurring sediment within the storm water ditches as it enters the WCFFF site boundary.

Locations SED-51, SED-52, and SED-53 were collected just upstream of the site Entrance Dike, and locations SED-54, SED-55, and SED-56 were collected well upstream within the flow path of Mill Creek. These six sediment sampling locations are representative of the naturally occurring background sediment within Mill Creek, which Upper and Lower Sunset Lakes are part of.

FIGURE 1 – Sediment Transect Sampling Locations



Site Features of Interest

Sediment samples were collected from eight locations across the site in storm water ditches. These locations were selected as they best represent the initial areas where contaminants from the site could potentially migrate. Sediment sample locations SED-13 through SED-18 are representative of the flow path of storm water across the site as it travels towards Mill Creek. Sediment samples SED-23 and SED-24 were collected from a surface water body known as the Gator Pond.

Sludge from the Sanitary Lagoon (SED-25 and SED-26), and the East Lagoon (SED-27 and SED-28) were also sampled; however these areas are known to be impacted and represent active wastewater treatment areas of the site.

Upper and Lower Sunset Lakes

Water depths in Upper and Lower Sunset Lakes are more profound than the non-impounded sections of Mill Creek. In the case of Lower Sunset Lake, a boat was the primary method used to reach each sampling location. In cases where water is shallow (i.e. SED-34, Figure 1) and not accessible by boat, hip waders were used to access the sediment sampling location. Previously collected sediment samples (SED-19 through SED-22) from this area of the site were surficial collections only.

Downstream Areas

Three of the sediment sampling transects (Figure 1) are downstream of the Lower Sunset Lake dike. This portion of Mill Creek is heavily forested, lowland swamp with minimal flow. The majority of the flow in Mill Creek through the Westinghouse property is by way of the diversion canal along the southern property boundary.

The Exit Dike (Figure 1) is located just north of the diversion canal and contains a drainage pipe that connects the water flowing from the section of Mill Creek that flows through Upper and Lower Sunset Lakes to the water flowing down the man-made diversion canal. Although not fully impounding, the depth of the surface water in Mill Creek appears to increase downstream closer to the Exit Dike.

Sampling Results

Sediment samples were sent to an off-site laboratory for analysis of U, Tc-99, Fluoride, and Nitrate. Reported Fluoride and Nitrate results were below the EPA Regional Screening Levels for residential use, therefore comparisons to industrial screening levels was not necessary.

The radiological screening levels in Table 1 are based on single contaminant concentrations for each isotope. When multiple radionuclides are present a "sum of fractions" (SOF) approach should be used to assess compliance with the concentration limit. The SOF for each unique sample is calculated using the following equation:

$$SOF = \frac{Conc_{U-234}}{SSL_{,U-234}} + \frac{Conc_{U-235}}{SSL_{,U-235}} + \frac{Conc_{U-238}}{SSL_{,U-238}} + \frac{Conc_{Tc-99}}{SSL_{,Tc-99}}$$

The values in Table 1 represent soil concentrations of individual radionuclides, using generally accepted exposure parameters, that would be deemed in compliance with the dose limits specified in 10 CFR 20.1402 (e.g. equivalent to 25 mrem/year under Residential Use).

Table 1: Residential and Industrial Use Screening Levels

Contaminant	Residential Screening Level	Industrial Screening Level	Basis of Screening Level
Uranium - 234	13 pCi/g (0.002 mg/Kg)	3,310 pCi/g (0.5 mg/kg)	NUREG 1757, Vol. 1-2 , Appendix H[1]
Uranium – 235	8 pCi/g (3.704 mg/Kg)	39 pCi/g (18 mg/kg)	NUREG 1757, Vol. 1-2 , Appendix H[1]
Uranium – 238	14 pCi/g (41.667 mg/Kg)	179 pCi/g (533 mg/kg)	NUREG 1757, Vol. 1-2 , Appendix H[1]
Total Uranium	12.69 pCi/g (5.320 mg/Kg)	2,933 pCi/g (1,230 mg/kg)	Calculated based on NUREG 1757, Vol. 2, Rev. 1-2, Appendix H[2]
Technetium - 99	19 pCi/g (1.110 E -03 mg/Kg)	89,400 pCi/g (5.2 mg/Kg)	NUREG 1757 Vol. 1-2 , Appendix H[1]

The Residential Use Screening Levels (RUSLs) were determined using highly conservative assumptions to develop an exposure scenario where it is assumed that a person would construct a house on the property, live on the property, drink the groundwater, and eat produce farmed on the property. For this reason, the RUSLs are provided for reference, but samples collected from within the CFFF property boundary will ultimately be compared to the Industrial Use Screening Level (IUSL), which is representative of the current and future use of the property.

The IUSLs are also based on conservative assumptions, but these assumptions better represent the current and future use of the WCFFF, as it is assumed that the industrial worker will not live on the property, or engage in the consumption of any food or water produced on the facility property. The sediment sample analytical results from the July 2019 sampling event are provided for reference in Table 2, along with the calculated SOF for both Residential and Industrial use scenarios.

Table 2: June 2019 Sediment Sampling Results

Sample ID	Analyte (pCi/g)				SOF	SOF
	U-234	U-235	U-238	Tc-99	Resid.	Ind.
SED-11	1.14	0.00	0.74	0.00[2]	0.14	0.00
SED-12	0.93	0.06[1]	1.17	0.00[2]	0.16	0.01
SED-13	1.67	0.16[1]	1.33	0.00[2]	0.24	0.01
SED-14	1.42	0.03[1]	0.39	0.02	0.14	0.00
SED-15	2.58	0.18	2.05	5.62	0.66	0.02
SED-16	14.90	0.68	2.77	4.94	**1.69**	0.04
SED-17	0.66	0.02	0.30	7.50	0.47	0.00
SED-18	0.22	0.02[1]	0.30	0.00[2]	0.04	0.00
SED-19	32.50	2.30	8.18	6.28	**3.70**	0.11
SED-20	62.50	3.12	14.90	0.00[2]	**6.26**	0.18
SED-21	1.86	0.10[1]	1.96	4.12	0.51	0.01
SED-22	117.00	4.98	28.00	0.00[2]	**11.62**	0.32
SED-23	1.35	0.00[1]	1.69	50.80	**2.90**	0.01
SED-24	1.14	0.06[1]	0.94	35.80	**2.05**	0.01
SED-25	907.00	41.10	149.00	8.55	**86.00**	**2.16**
SED-26	222.00	11.00	46.90	1.68	**21.89**	0.61
SED-27	225.00	11.90	37.40	0.00[2]	**21.47**	0.58
SED-28	254.00	12.40	44.60	5.75	**24.58**	0.64

[1] Value is estimated, result below detection limit
[2] Negative values below lab bkg, set to zero

The sediment samples that were collected are below the applicable IUSLs, with the exception of SED-25, which was collected from the Sanitary Lagoon, an area of the site that is known to be impacted. The Sanitary Lagoon is an earthen lagoon within a controlled and fenced area of the facility, and further investigation is planned under the DHEC Consent Agreement and associated Remedial Investigation Work. Public access to this area of the site is restricted. In addition, the sample location itself represents an inaccessible area as it is located in the Sanitary Lagoon sludge that is covered by several feet of treated sanitary wastewater awaiting chlorine disinfection. This sample does not represent undue risk to the workforce at this time, but routine dose monitoring should be performed for personnel who work in this area.

Samples SED-23 and SED-24 (both collected from the Gator Pond) were identified to be above the RUSL due to Tc-99. Sediment sample locations SED-26 (also collected from the Sanitary

Lagoon), SED-27 and SED-28 (both collected from the East Lagoon) were also identified to contain concentrations of U above the RUSL, as expected.

Sediment sampling location SED-16 was identified to be above the RUSL, however this area is below the applicable IUSL, and appears to be isolated, as U concentration in downstream sediment samples SED-17, and SED-18 were below RUSL.

Three samples from Mill Creek were found to be above the RUSL; SED-19 and SED-20 were collected in Upper Sunset Lake upstream of the Upper Sunset Lake Dike, and sediment sample SED-22 was collected from Lower Sunset Lake upstream of the Lower Sunset Lake Dike. It is important to note that these samples represent sediment that is contained on the WCFFF property and the RUSL is used for reference only. The sample results are below the IUSL, which is a more appropriate comparison as these samples are representative of an industrial use area. However, out of prudence to public and environmental health and safety, additional investigations were performed within Mill Creek, both up and down stream. The sediment sample analytical results from the November 2019 sampling event are provided in Table 3.

Table 3: November 2019 Sediment Transect Sampling Results

Sample ID	Analyte (pCi/g)				SOF	SOF
	U-234	U-235	U-238	Tc-99	Resid.	Ind.
SED-29-0-6	6.23	0.31	2.51	0.00[2]	0.70	0.02
SED-29-06-12	1.81	0.21	1.55	0.00[2]	0.28	0.01
SED-29-12-16	1.23	0.18	1.16	0.00[2]	0.20	0.01
SED-30-0-6	5.71	0.19	2.51	2.43[1]	0.77	0.02
SED-30-6-12	1.41	0.03[1]	1.28	0.00[2]	0.20	0.01
SED-31-0-6	2.81	0.07[1]	1.75	0.96[1]	0.40	0.01
SED-31-6-12	2.96	0.11[1]	1.69	0.00[2]	0.36	0.01
SED-32-0-6	3.71	0.10[1]	2.00	5.06[1]	0.71	0.01
SED-32-6-12	10.00	0.47	3.28	0.00[2]	***1.06***	0.03
SED-33-0-6	5.06	0.39	2.52	0.00[2]	0.62	0.03
SED-33-6-12	1.27	0.10[1]	1.56	0.00[2]	0.22	0.01
SED-33-12-16	1.06	0.05[1]	1.09	0.00[2]	0.17	0.01
SED-34-0-6	3.13	0.13[1]	1.81	0.00[2]	0.39	0.01
SED-34-6-12	2.93	0.05[1]	1.73	0.00[2]	0.36	0.01
SED-35-0-6	2.26	0.18	1.59	0.00[2]	0.31	0.01
SED-35-6-12	1.59	0.04[1]	1.66	0.00[2]	0.25	0.01
SED-36-0-6	4.40	0.21	2.38	0.00[2]	0.53	0.02
SED-36-6-12	1.50	0.09	1.05	0.00[2]	0.20	0.01
SED-37-0-6	4.88	0.25	1.78	0.00[2]	0.53	0.02
SED-37-6-12	2.04	0.15	1.62	0.00[2]	0.29	0.01
SED-38 0	3.26	0.20	1.68	16.50[1]	***1.26***	0.02
SED-39 0"-6"	1.86	0.01[1]	1.70	0.00[2]	0.27	0.01
SED-40 0"-6"	1.90	0.13	1.24	0.00[2]	0.25	0.01
SED-41 0"-6"	1.72	0.04[1]	1.41	1.00[1]	0.29	0.01
SED-42 0"-6"	6.12	0.29	2.23	5.94[1]	0.98	0.02
SED-43 0"-6"	47.50	2.32	12.10	0.00[2]	***4.81***	0.14
SED-44 0"-6"	8.86	0.38	2.62	6.23[1]	***1.24***	0.03
SED-45 0"-6"	5.86	0.27	2.20	2.83[1]	0.79	0.02
SED-46 0"-6"	4.02	0.18	2.15	0.00[2]	0.49	0.02
SED-47 0"-6"	3.18	0.23	1.46	0.00[2]	0.38	0.02
SED-48 0"-6"	2.57	0.09[1]	1.98	0.00[2]	0.35	0.01
SED-48-DUP 0"-6"	2.43	0.01[1]	1.62	0.00[2]	0.30	0.01
SED-49 0"-6"	4.59	0.22	2.11	0.00[2]	0.53	0.02
SED-50 0"-6"	3.64	0.10[1]	1.86	0.91[1]	0.47	0.01

[1] Value is estimated, result below minimum detectable concentration
[2] Negative values below laboratory analytical background are set to zero

Sediment samples SED-38, SED-43, and SED-44 (Figure 1) from the November 2019 sediment sampling event also contained U concentrations above the RUSL. As can be seen in Figure 1, SED-19 is located near the flow path of storm water runoff from the facility. SED-20, SED-43, and SED-44 are just upstream of the Upper Sunset Lake Dike, and SED-22 and SED-38 are just upstream of the Lower Sunset Lake Dike. These results seem to indicate that the dikes are serving as effective impounding barriers. The dikes restrict the flow of surface water causing a pooling effect, which would encourage any suspended solids to settle out upstream of the dikes. Transport of impacted soil and sediments from historical events are the likely source of radiological impacts.

Sample location SED-32 was sampled at both the surface (top 6 inches) and subsurface interval (6-12 inches below the surface). The surface interval contained radiological concentrations below the RUSL, but the subsurface interval contained radiological concentrations above the RUSL. While this location is still on the WCFFF property and is representative of an industrial use area, it is important to note that subtraction of naturally occurring, background radiation has not been performed. If background radioactivity is subtracted from the sample, it falls below the RUSL.

In order to establish the level of naturally occurring, background radioactivity in the sediment of Mill Creek, sediment samples from two transects were collected upstream of the WCFFF from areas that have not been influenced by activities at the facility. Sediment sample locations SED-51 through SED-56 were selected as areas representative of background conditions within Mill Creek. These locations are protected from potential back flow by the Entrance Dike and are representative of the naturally occurring levels of U found in the surrounding soil of the area. The results of these background sediment sample locations are provided in Table 4.

Table 4: Background Sediment Sampling Results

Sample ID	Analyte (pCi/g)			SOF	SOF
	U-234	U-235	U-238	Resid.	Ind.
SED-51 0"-6"	2.1	ND	1.42	0.26	0.01
SED-51 6"-12"	1.27	ND	1.15	0.18	0.01
SED-52 0"-6"	1.77	ND	1.72	0.26	0.01
SED-52 6"-12"	1.88	ND	1.45	0.25	0.01
SED-53 0"-6"	2.15	0.194	1.45	0.29	0.01
SED-53 6"-12"	2.06	ND	2.34	0.33	0.01
SED-54 0"-6"	1.78	ND	1.36	0.23	0.01
SED-54 6"-12"	1.48	ND	1.87	0.25	0.01
SED-55 0"-6"	2.05	ND	1.74	0.28	0.01
SED-55 6"-12"	1.62	0.155	1.62	0.26	0.01
SED-56 0"-6"	2.02	0.214	1.4	0.28	0.01
SED-56 6"-12"	1.89	ND	1.72	0.27	0.01
SED-56-DUP 0"-6"	2.82	ND	2.11	0.37	0.01
Ave Surface	1.98	0.07	1.52	0.27	
Ave Sub-Surface	1.70	0.03	1.69	0.25	
Total Average	1.84	0.05	1.60	0.26	

As can be seen from Table 4 above, the naturally occurring background levels of U in the sediment represent approximately ¼ of the RUSL. Tc-99 is not a naturally occurring nuclide; therefore it is not expected to be found in background samples. Tc-99 concentrations within the sediment sample analytical results from these locations were below the Minimum Detectable Concentration (MDC). Since U background represents a significant portion of the RUSL, background subtraction is warranted. For the sediment samples with analytical results above the RUSL, the average U background value was subtracted to produce a net sample result. The net sample result, and corresponding SOF values are presented in Table 5.

Table 5: RSL Exceedances With Adjustments to Account for Natural Background Concentrations of U

Sample ID	Analyte (pCi/g)				SOF	SOF
	U-234	U-235	U-238	Tc-99	Resid.	Ind.
SED-19	30.66	2.25	6.58	6.28[1]	***3.44***	0.10
SED-20	60.66	3.07	13.30	0.00[2]	***6.00***	0.17
SED-22	115.16	4.93	26.40	0.00[2]	***11.36***	0.31
SED-32-6-12	8.16	0.42	1.68	0.00[2]	0.80	0.02
SED-38 0	1.42	0.16	0.08	16.50[1]	***1.00***	0.01
SED-43 0"-6"	45.66	2.27	10.50	0.00[2]	***4.55***	0.13
SED-44 0"-6"	7.02	0.33	1.02	6.23[1]	0.98	0.02

[1] Value is estimated, result below minimum detectable concentration
[2] Negative values below laboratory analytical background are set to zero

As can be seen from Table 5 above, sediment sample locations SED-32 and SED-44 net sample results are found to be below the RUSL when adjusted for background U concentrations in the sediment.

Sediment sample locations SED-19, SED-20, SED-22, SED-38, and SED-43 while above RUSL, do not exceed the IUSL. The IUSL is an appropriate screening level for areas of the WCFFF that are representative of industrial use.

It is also important to note that all sediment samples collected downstream of the Lower Sunset Lake Dike are below the RUSL when adjusted for background. Sediment sample locations SED-29 through SED-31 represent the area just upstream of the Exit Dike and the WCFFF boundary. It would be expected that if impacted sediment were to migrate out of Lower Sunset Lake that the area upstream of the Exit Dike would be a likely settling point. The average Residential SOF of these three samples is 0.42 and the background adjusted net Residential SOF is 0.15, indicating that there is no concern for the potential migration of impacted sediment from the WCFFF.

<u>Conclusions</u>

In total, 63 unique sediment samples were collected from 46 locations across the WCFFF and within Mill Creek crossing the Southern portion of the WCFFF. Several upstream areas were sampled to establish the naturally occurring background U concentrations that would be expected in every sample. Sediment samples were collected from multiple transects in Upper and Lower Sunset Lake where migration of contamination may occur in the sediment. Sediment samples were also collected from several sections of Mill Creek downstream of the Lower Sunset Lake Dike where no migration of impacted sediment was expected to be observed.

A review of the sediment analytical results concludes that naturally occurring U is expected to be present in the sediment samples and that the background levels are significant enough to warrant background subtraction. Areas of U impact above the RUSL were observed in Upper and Lower Sunset Lake, but the detected levels of sediment impact do not pose a risk to public health and safety, the environment, or to the workers at the WCFFF. The sediment impacts above RUSL were located just upstream of the dikes in both Upper and Lower Sunset Lakes. This supports the conclusion that the dikes are functioning as effective impounding barriers. Fast moving water can carry solids downstream in a suspended form. Restricting the flow of surface water causes pooling, which encourages suspended solids to settle out of the water. Therefore, it is expected that the sediment analytical results upstream of the Lower Sunset Lake Dike represents the furthest downstream extent of sediment impact from the WCFFF.

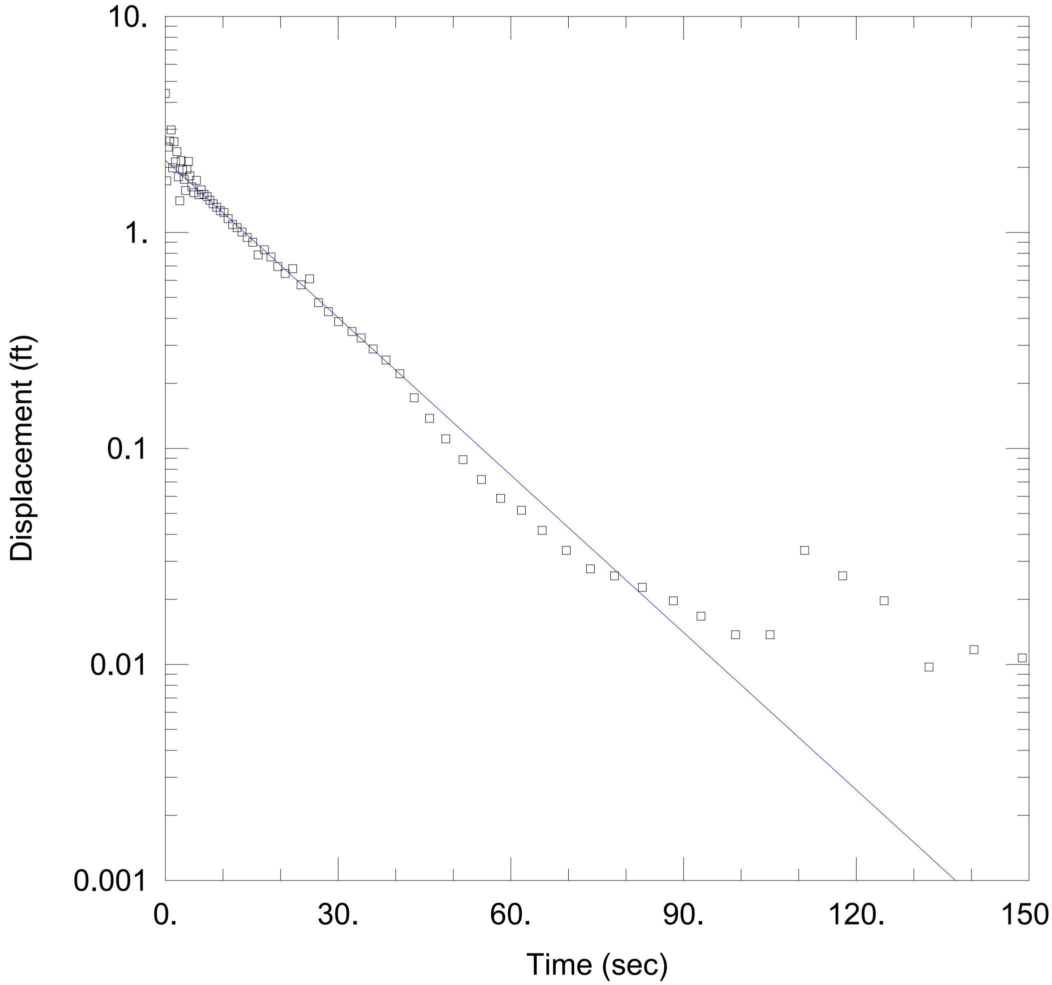
Most importantly, no contamination above the RUSL was identified downstream of the Lower Sunset Lake Dike. Sediment samples collected upstream of the Exit Dike, and subsequently the WCFFF property boundary, indicate that there is no concern for the potential migration of impacted sediment from the facility. Should elevated sample results be identified in the future, or isolated incidents such as environmental releases raise the potential for the migration of contamination, additional monitoring and potentially remedial action may be necessary. However, the only action that is required at this time is the continued environmental monitoring of Mill Creek as part of the WCFFF periodic environmental monitoring program, and the continued implementation of the DHEC Consent Agreement and associated Remedial Investigation Work.

References

NRC 2006. *Consolidated Decommissioning Guidance: Decommissioning Process for Materials Licensees*, NUREG-1757, Vol. 1, Rev. 2.

NRC 2006. *Consolidated Decommissioning Guidance: Characterization, Survey, and Determination of Radiological Criteria*, NUREG-1757, Vol. 2, Rev. 1.

Appendix C
Hydraulic Characterization Results



W-13R FALLING HEAD

Data Set: O:\...\W-13R_cks_Falling.aqt
Date: 02/14/20 Time: 10:55:47

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-13R

AQUIFER DATA

Saturated Thickness: 21.71 ft
Anisotropy Ratio (Kz/Kr): 1.

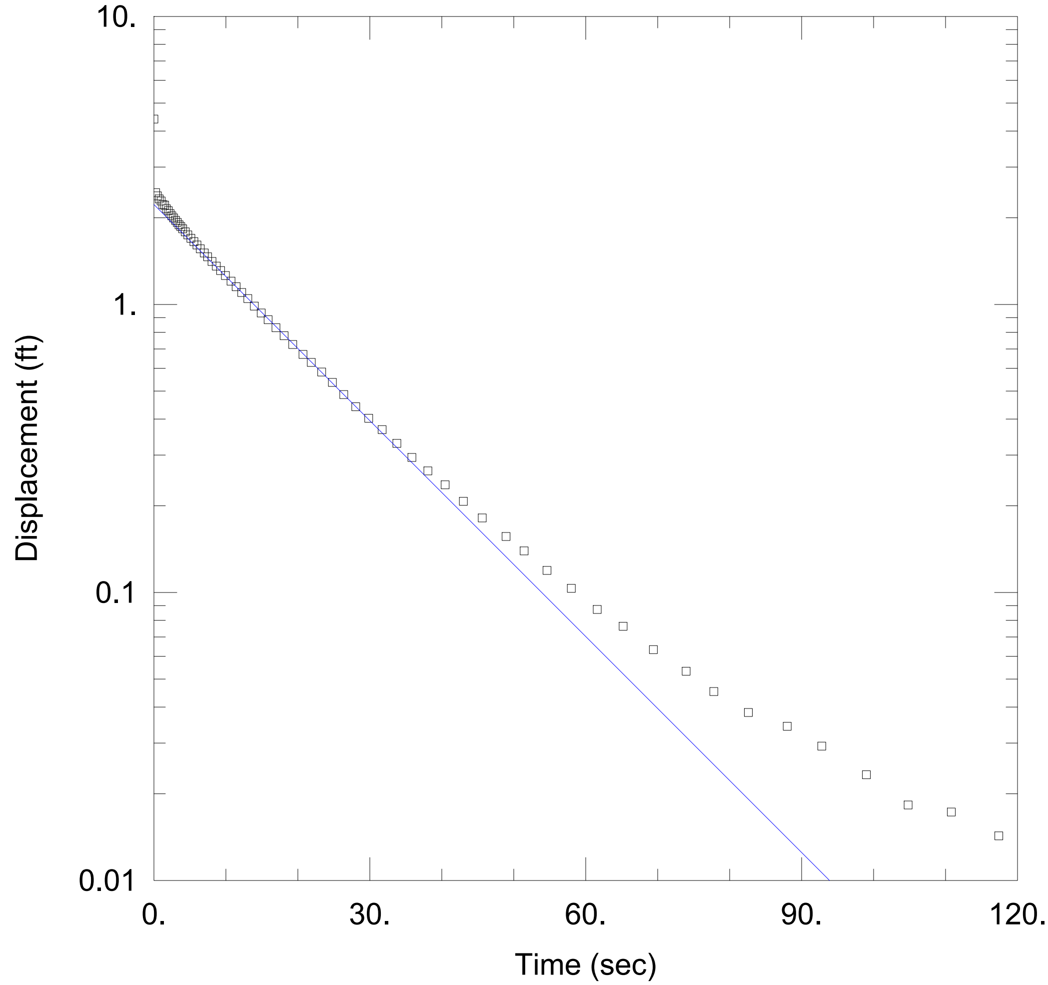
WELL DATA (W-13R)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 8.46 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.71 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 9.804 ft/day
y0 = 2.157 ft



W-13R RISING HEAD

Data Set: O:\...\W-13R_cks_Rising.aqt
Date: 02/14/20 Time: 10:56:09

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-13R

AQUIFER DATA

Saturated Thickness: 21.71 ft
Anisotropy Ratio (Kz/Kr): 1.

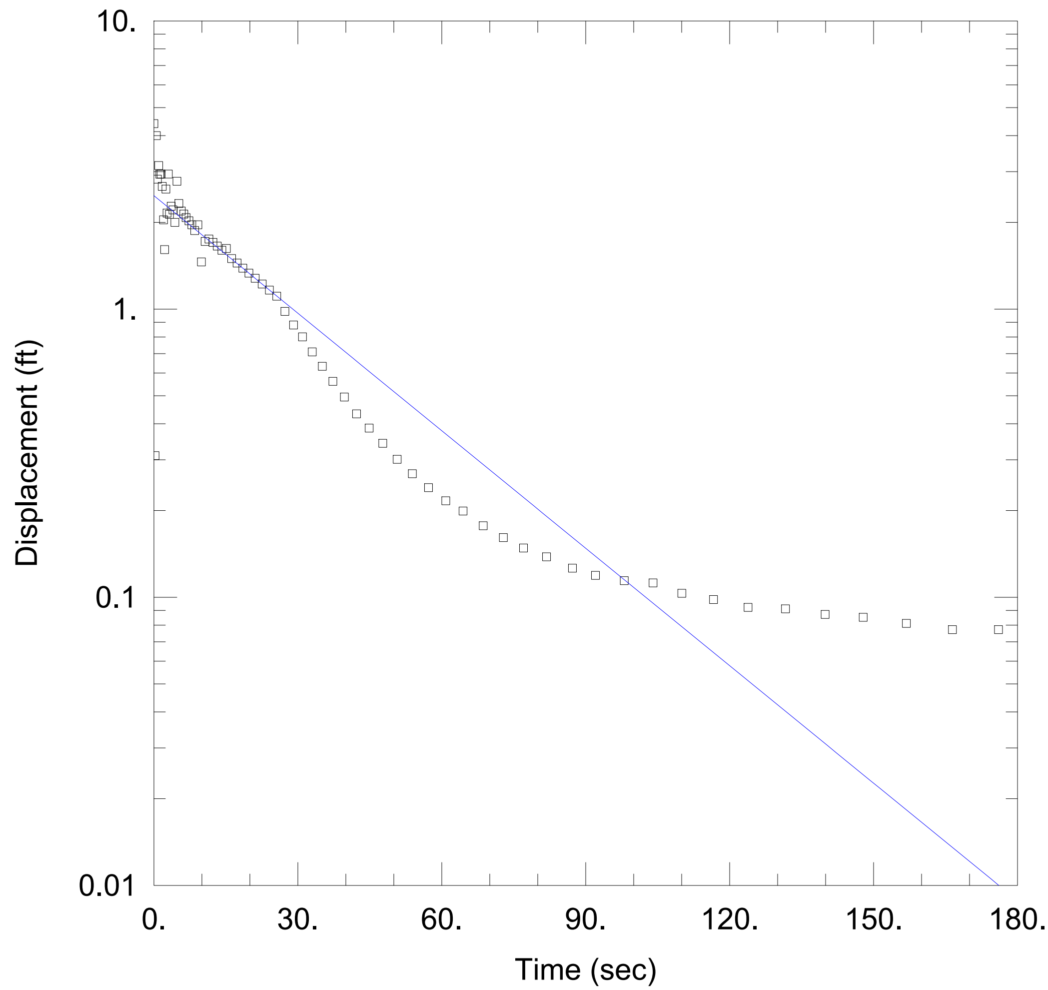
WELL DATA (W-13R)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 8.46 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.71 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 10.09 ft/day
y0 = 2.224 ft



W-15 FALLING HEAD

Data Set: O:\...\W-15_cks_Falling.aqt
Date: 02/14/20
Time: 10:56:32

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-15

AQUIFER DATA

Saturated Thickness: 18.33 ft
Anisotropy Ratio (Kz/Kr): 1.

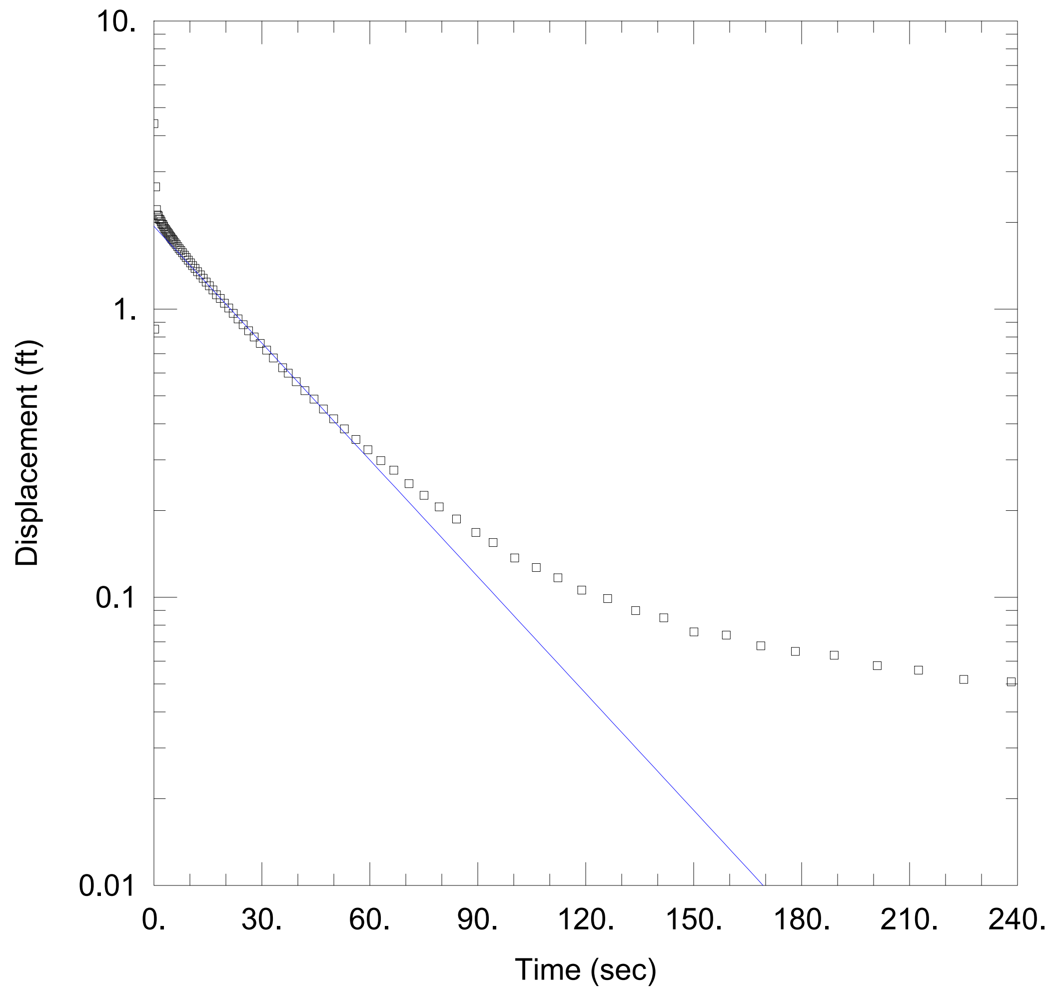
WELL DATA (W-15)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 8.74 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.99 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 5.56 ft/day
y0 = 2.475 ft



W-15 RISING HEAD

Data Set: O:\...\W-15_cks_Rising.aqt
Date: 02/14/20 Time: 10:56:47

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-15

AQUIFER DATA

Saturated Thickness: 18.33 ft Anisotropy Ratio (Kz/Kr): 1.

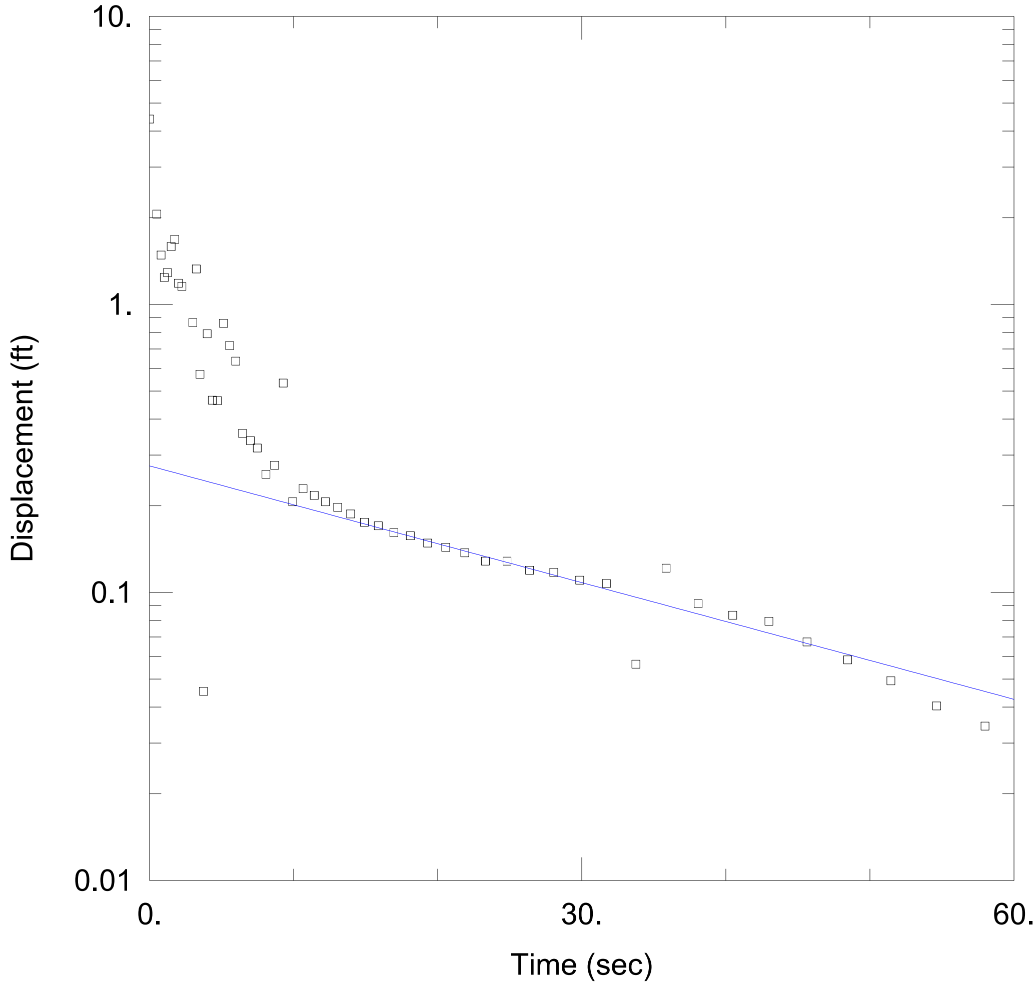
WELL DATA (W-15)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 8.74 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.99 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 5.527 ft/day y0 = 1.938 ft



W-39 FALLING HEAD

Data Set: O:\...\W-39_cks_Falling.aqt
Date: 02/14/20 Time: 10:57:25

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-39

AQUIFER DATA

Saturated Thickness: 16.82 ft Anisotropy Ratio (Kz/Kr): 1.

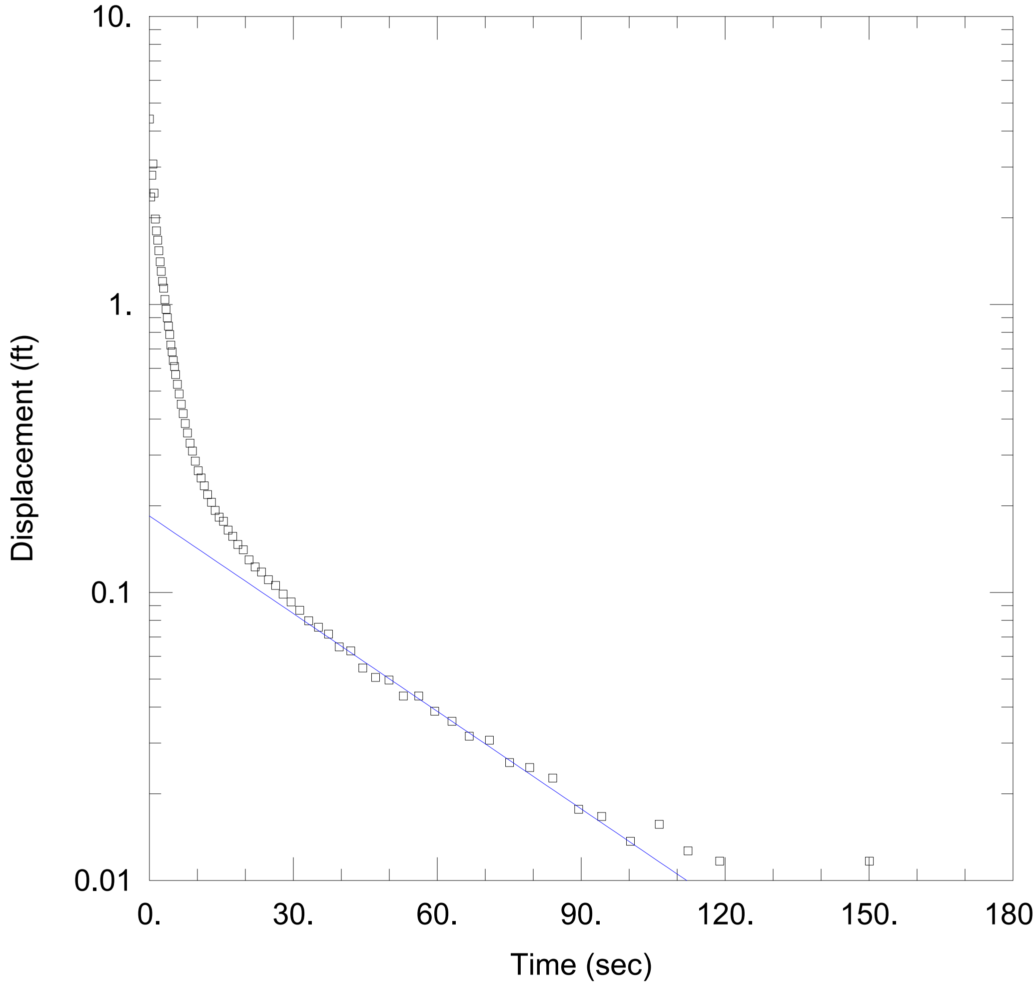
WELL DATA (W-39)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.329 ft/day y0 = 0.275 ft



W-39 RISING HEAD

Data Set: O:\...\W-39_cks_Rising.aqt
Date: 02/14/20 Time: 10:58:40

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-39

AQUIFER DATA

Saturated Thickness: 16.82 ft Anisotropy Ratio (Kz/Kr): 1.

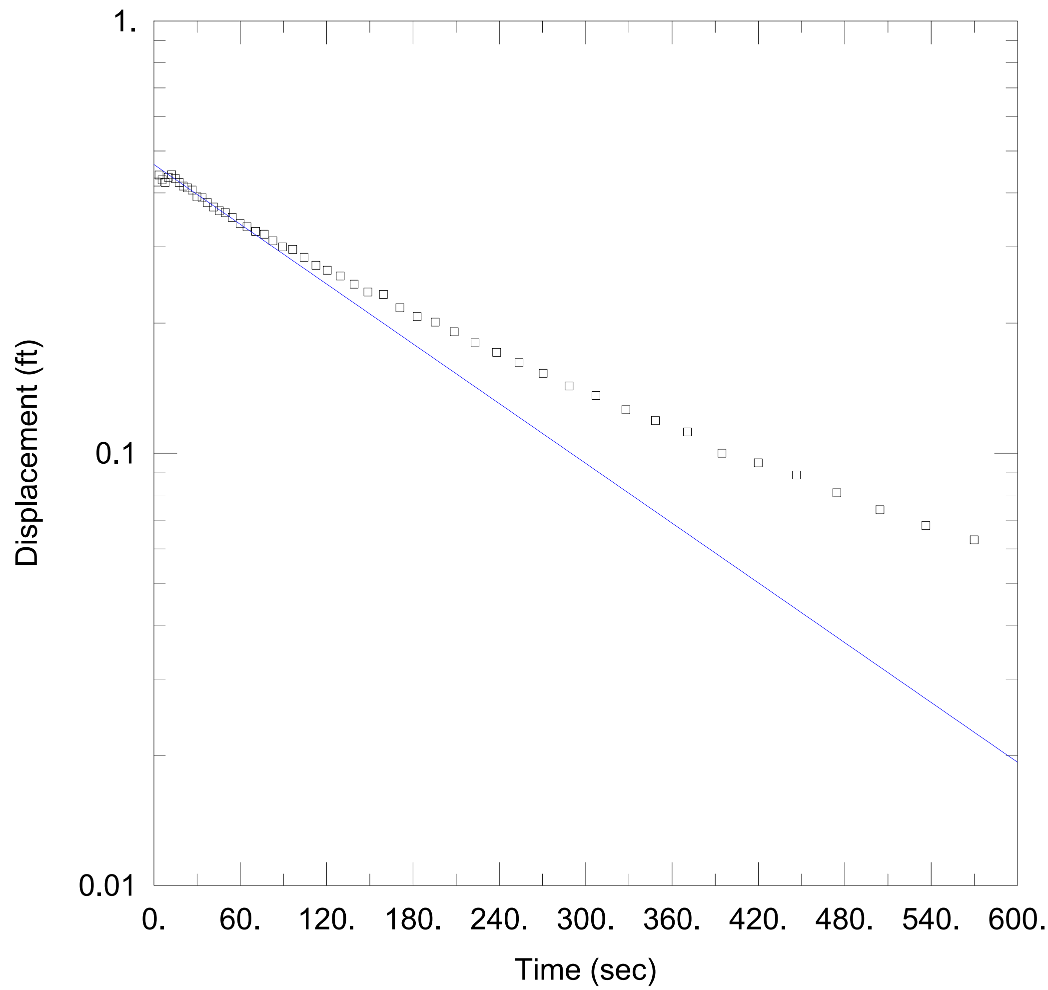
WELL DATA (W-39)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.784 ft/day y0 = 0.1843 ft



W-48 FALLING HEAD

Data Set: O:\...\W-48_cks_Falling.aqt
Date: 02/14/20 Time: 10:59:17

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-48

AQUIFER DATA

Saturated Thickness: 17.61 ft Anisotropy Ratio (Kz/Kr): 1.

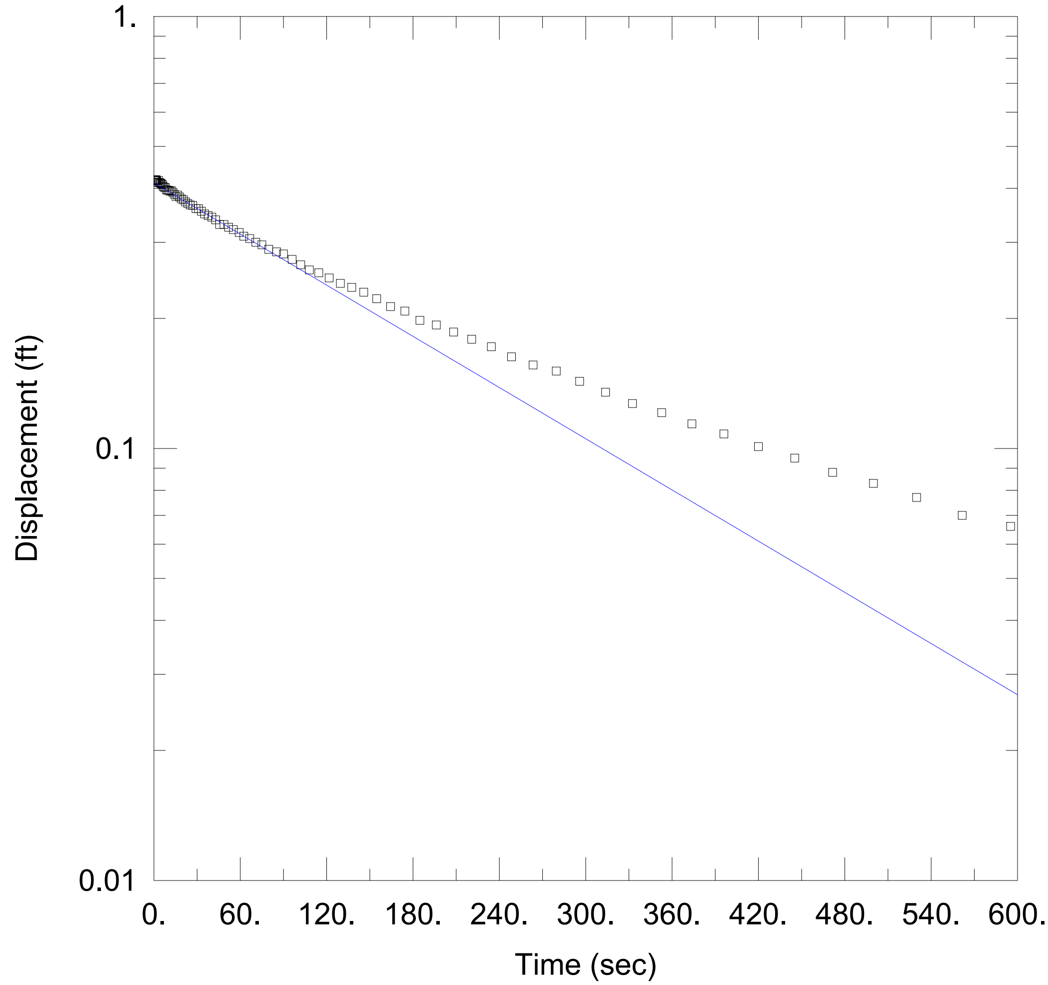
WELL DATA (W-48)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 16.89 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.14 ft
Screen Length: 10. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.6033 ft/day y0 = 0.4654 ft



W-48 RISING HEAD

Data Set: O:\...\W-48_cks_Rising.aqt
Date: 02/14/20 Time: 11:00:08

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-48

AQUIFER DATA

Saturated Thickness: 17.61 ft Anisotropy Ratio (Kz/Kr): 1.

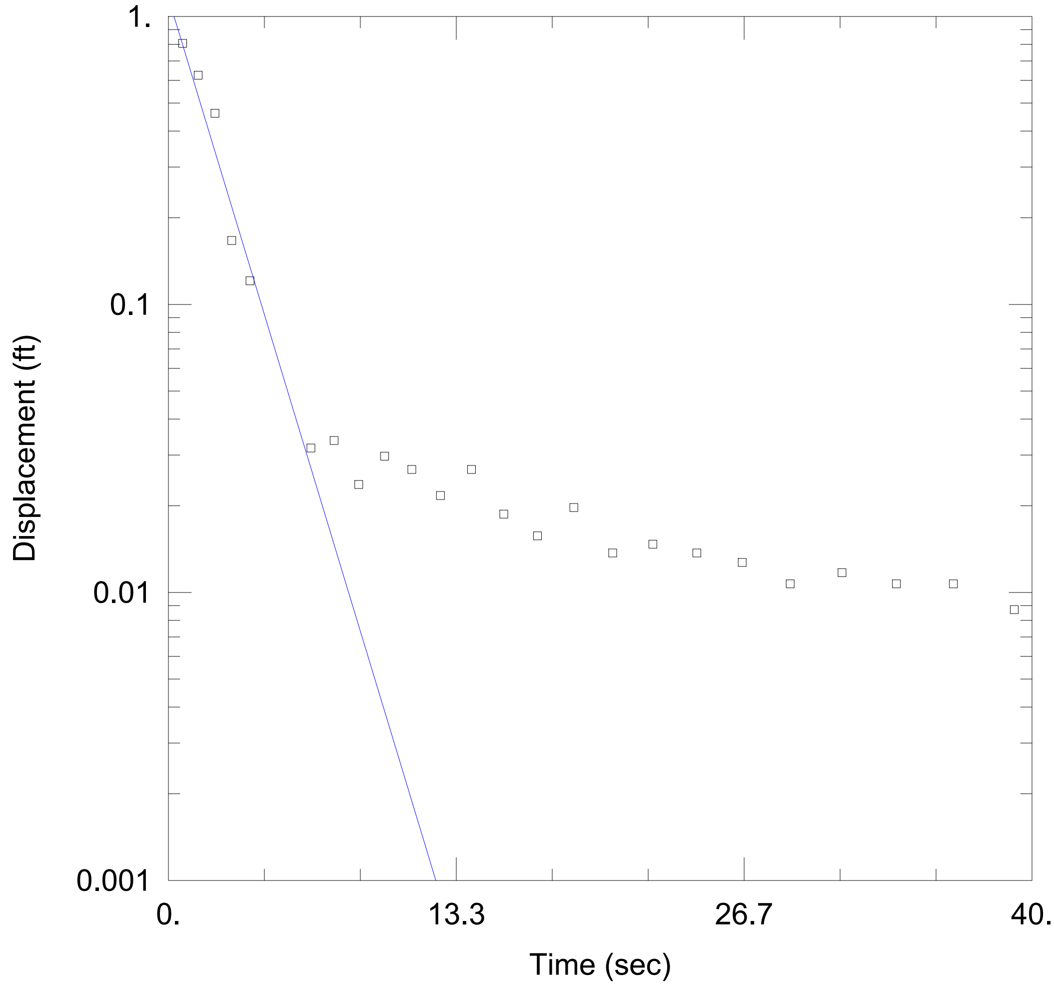
WELL DATA (W-48)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 16.89 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.14 ft
Screen Length: 10. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.5169 ft/day y0 = 0.4119 ft



W-60 FALLING HEAD

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Date: 02/14/20 Time: 11:00:39

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-60

AQUIFER DATA

Saturated Thickness: 17.83 ft
Anisotropy Ratio (Kz/Kr): 1.

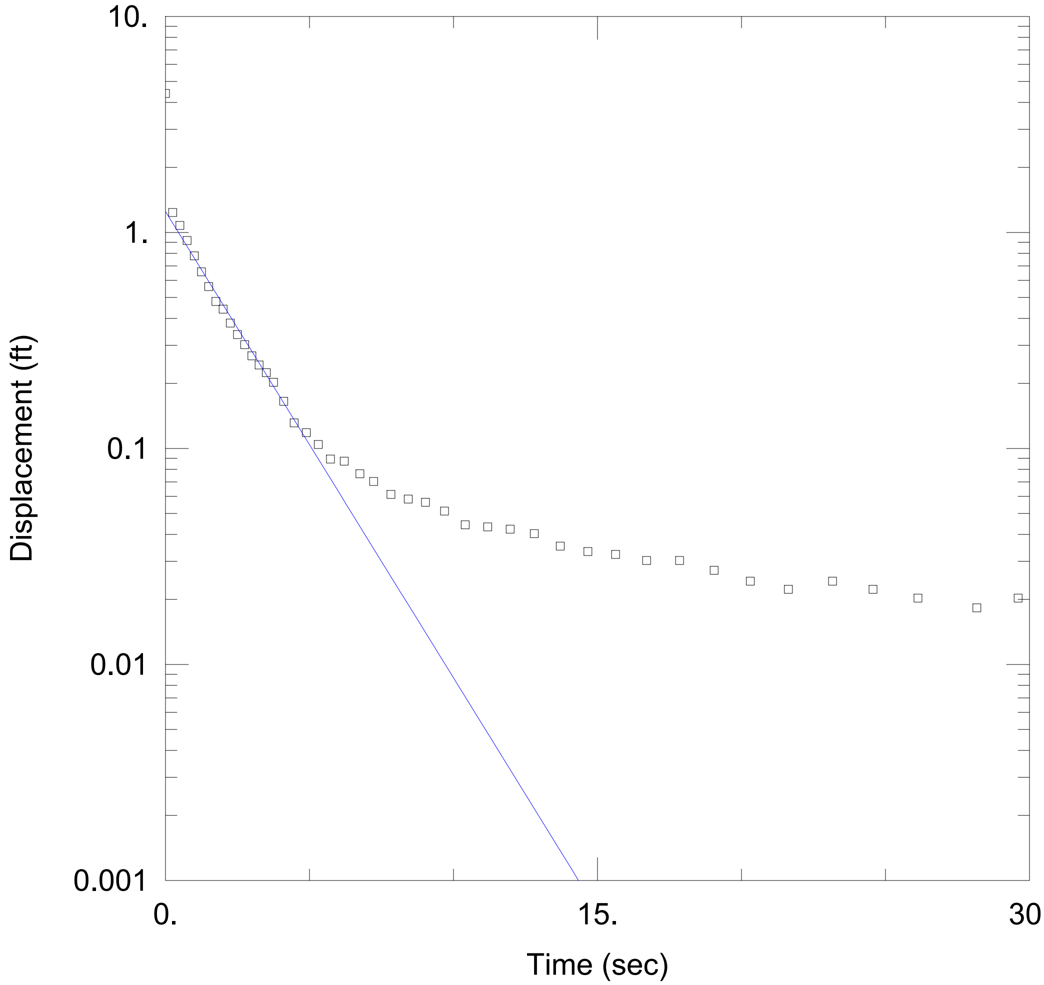
WELL DATA (W-60)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.83 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 133.7 ft/day
y0 = 1.161 ft



W-60 RISING HEAD

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Date: 02/14/20 Time: 11:01:05

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-60

AQUIFER DATA

Saturated Thickness: 17.83 ft Anisotropy Ratio (Kz/Kr): 1.

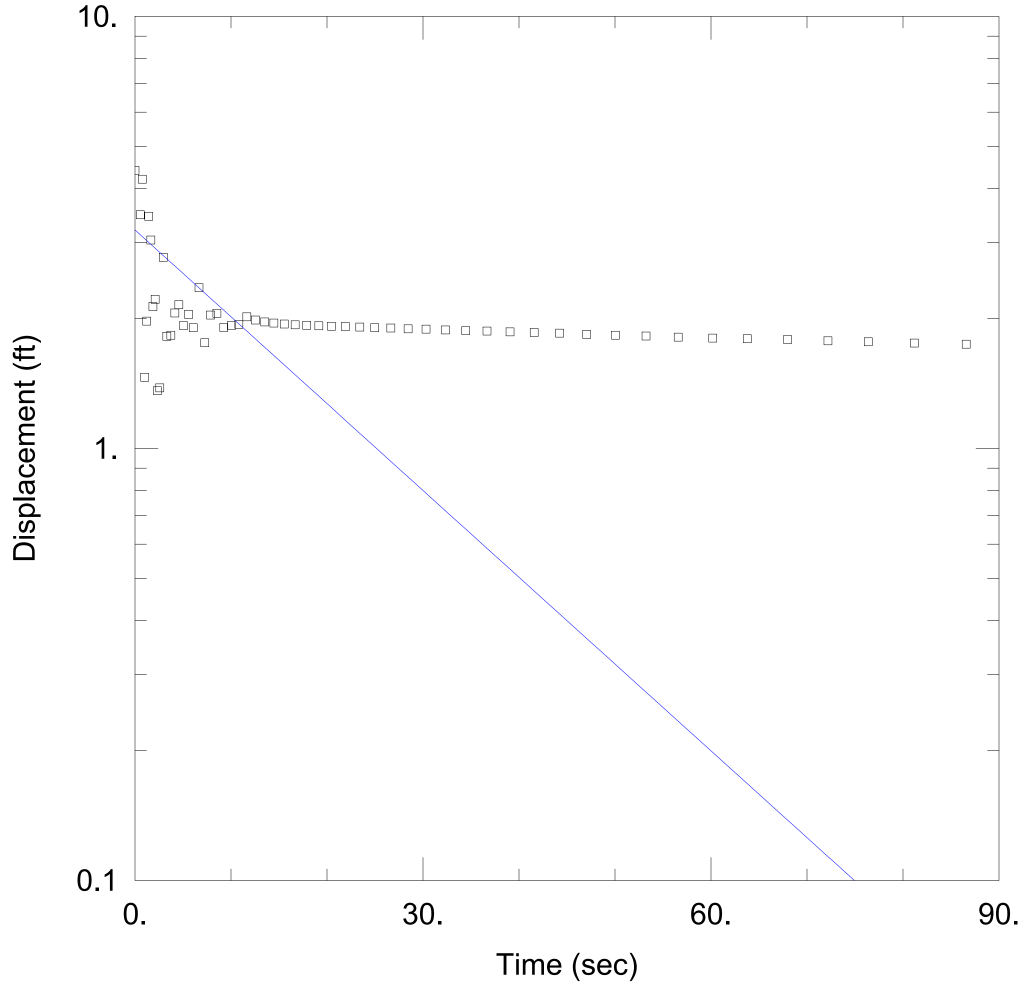
WELL DATA (W-60)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.83 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 116.7 ft/day y0 = 1.25 ft



W-61 FALLING HEAD

Data Set: O:\...\W-61_cks_Falling.aqt
Date: 02/14/20 Time: 11:01:29

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-61

AQUIFER DATA

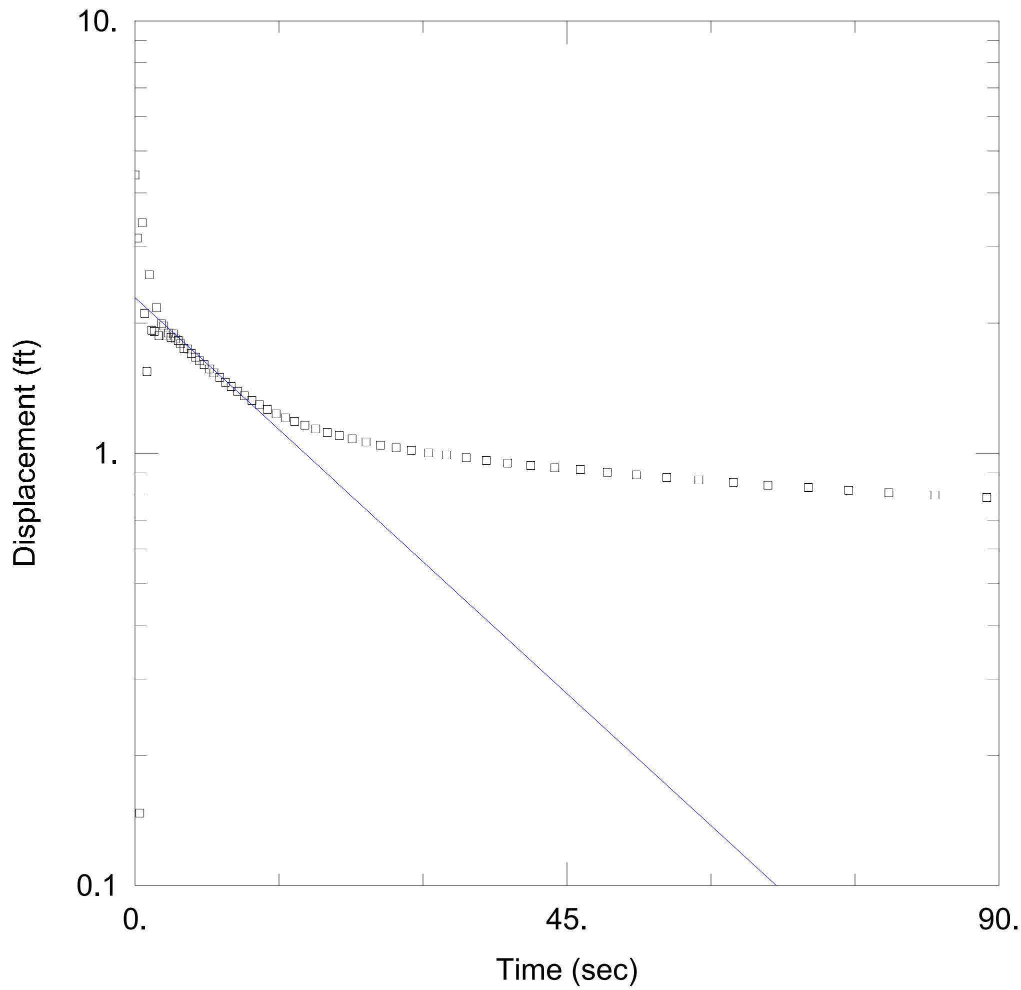
Saturated Thickness: 21.3 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (W-61)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 17.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.73 ft
Screen Length: 10. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.085 ft/day
y0 = 3.203 ft



W-61 RISING HEAD

Data Set: O:\...\W-61_cks_Rising.aqt
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Time: 11:01:56

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-61

AQUIFER DATA

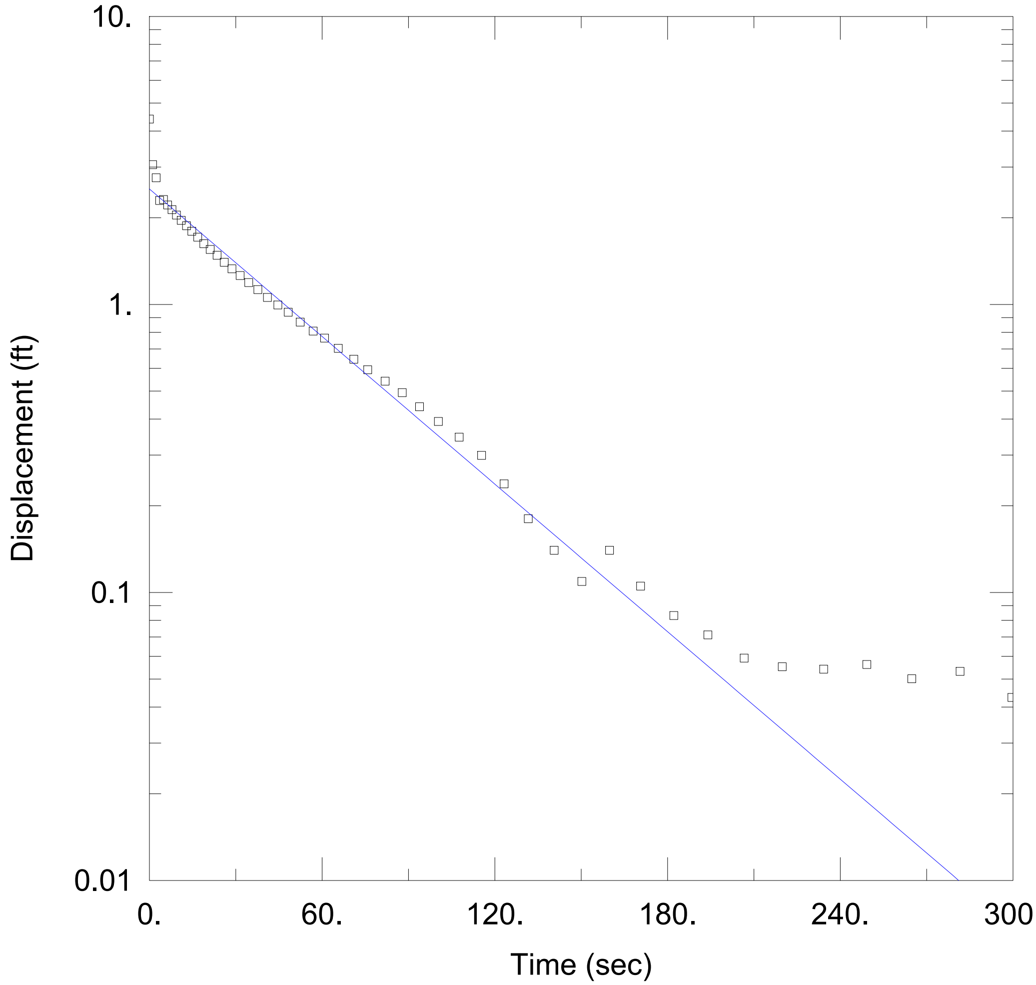
Saturated Thickness: 21.3 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (W-61)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 17.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.73 ft
Screen Length: 10. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.153 ft/day
y0 = 2.29 ft



W-94 FALLING HEAD

Data Set: O:\...\W-94_cks_Falling.aqt
Date: 02/14/20
Time: 10:52:19

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-94

AQUIFER DATA

Saturated Thickness: 19.62 ft
Anisotropy Ratio (Kz/Kr): 1.

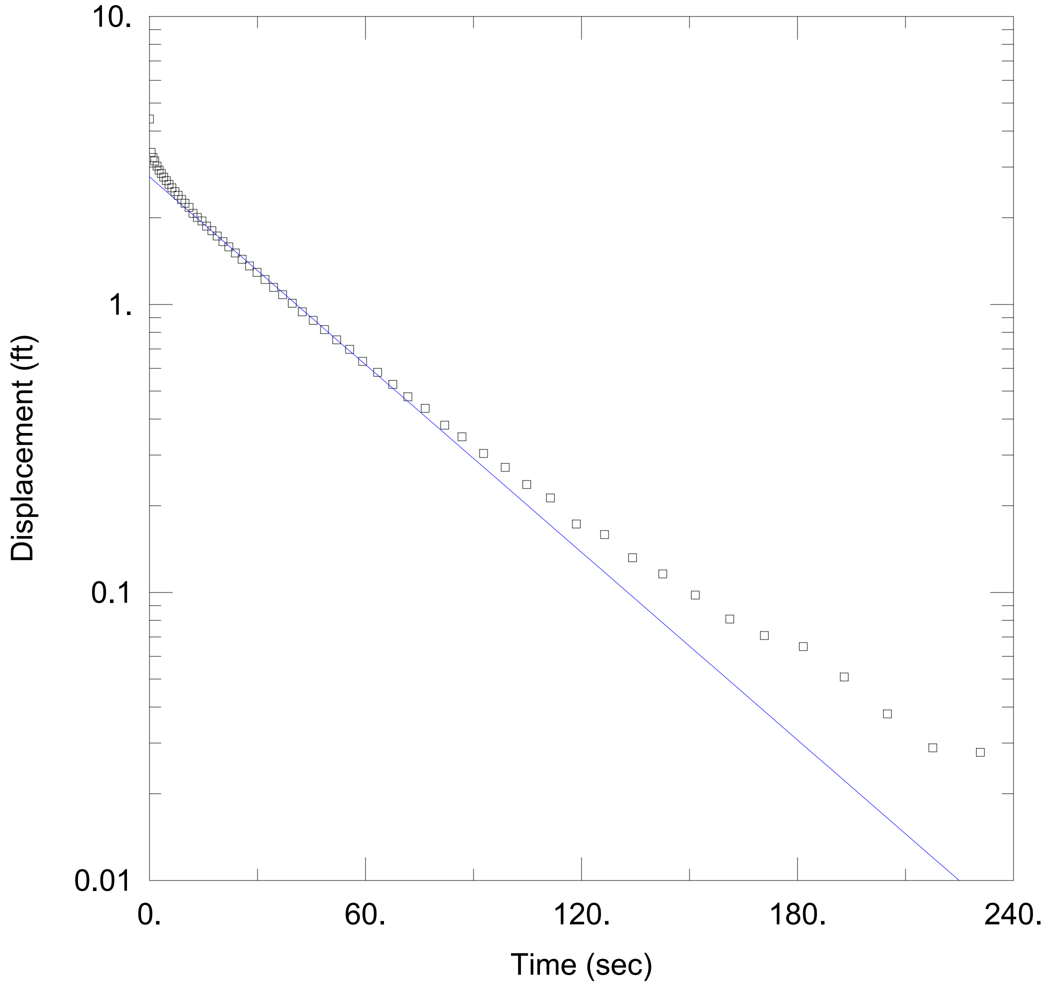
WELL DATA (W-94)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 19.77 ft
Casing Radius: 0.083 ft
Static Water Column Height: 20.02 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.667 ft/day
y0 = 2.516 ft



W-94 RISING HEAD

Data Set: O:\...\W-94_cks_Rising.aqt
Date: 02/14/20 Time: 10:52:37

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-94

AQUIFER DATA

Saturated Thickness: 19.62 ft
Anisotropy Ratio (Kz/Kr): 1.

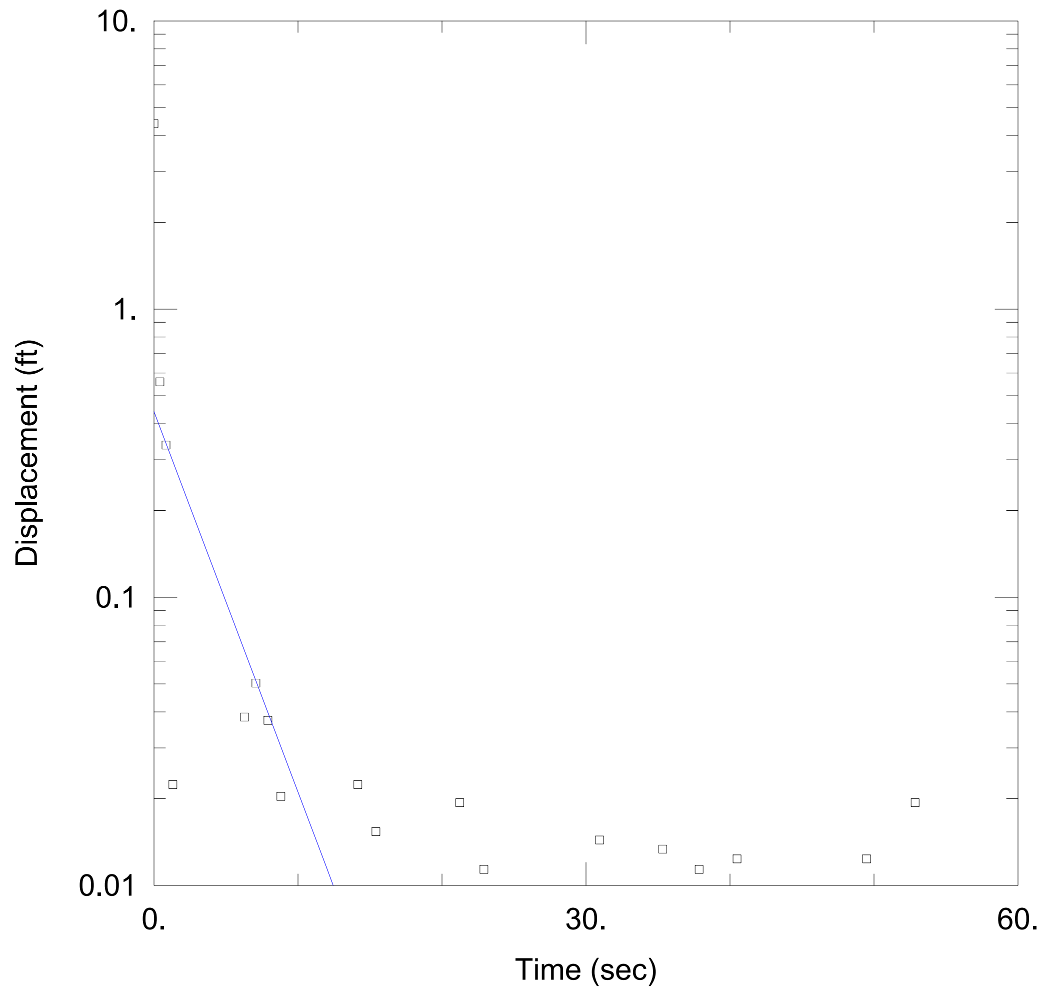
WELL DATA (W-94)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 19.77 ft
Casing Radius: 0.083 ft
Static Water Column Height: 20.02 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 5.937 ft/day
y0 = 2.773 ft



W-95 FALLING HEAD

Data Set: O:\...\W-95_cks_Falling.aqt
Date: 02/14/20 Time: 10:53:03

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-95

AQUIFER DATA

Saturated Thickness: 75.15 ft Anisotropy Ratio (Kz/Kr): 1.

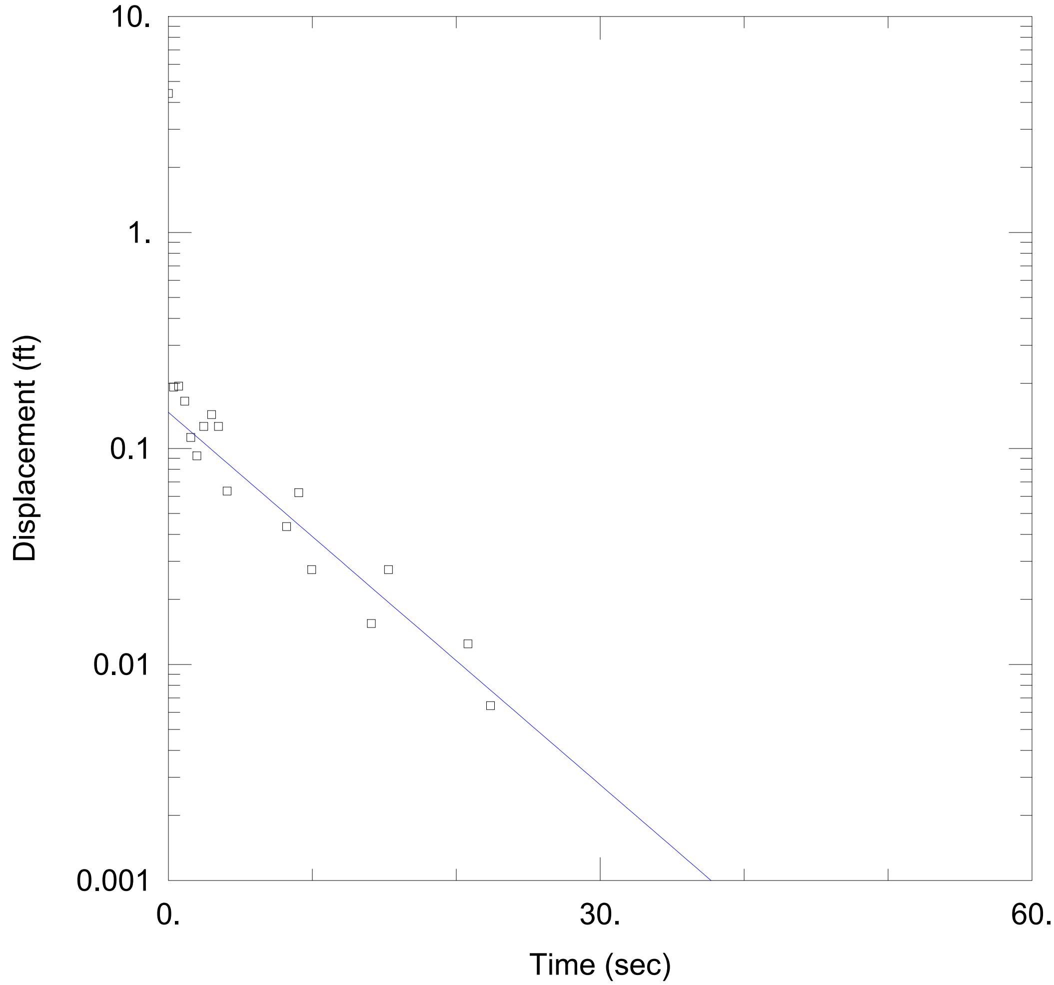
WELL DATA (W-95)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 25.24 ft
Casing Radius: 0.083 ft
Static Water Column Height: 25.49 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 59.84 ft/day y0 = 0.4406 ft



W-95 RISING HEAD

Data Set: O:\...\W-95_cks_Rising.aqt
Date: 02/14/20 Time: 10:53:23

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-95

AQUIFER DATA

Saturated Thickness: 75.15 ft Anisotropy Ratio (Kz/Kr): 1.

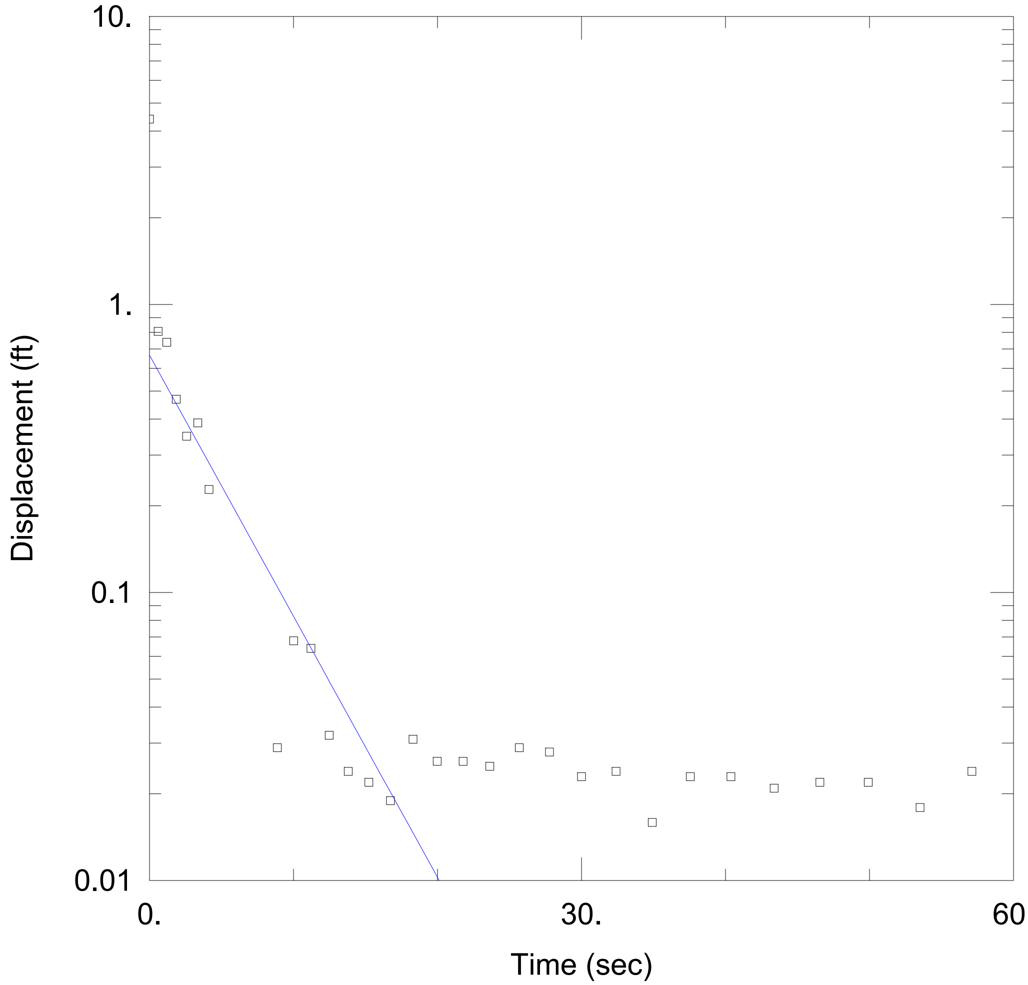
WELL DATA (W-95)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 25.24 ft
Casing Radius: 0.083 ft
Static Water Column Height: 25.49 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 26.05 ft/day y0 = 0.1468 ft



W-96 FALLING HEAD

Data Set: O:\...\W-96_cks_Falling.aqt
Date: 02/14/20
Time: 10:53:44

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-96

AQUIFER DATA

Saturated Thickness: 37.73 ft
Anisotropy Ratio (Kz/Kr): 1.

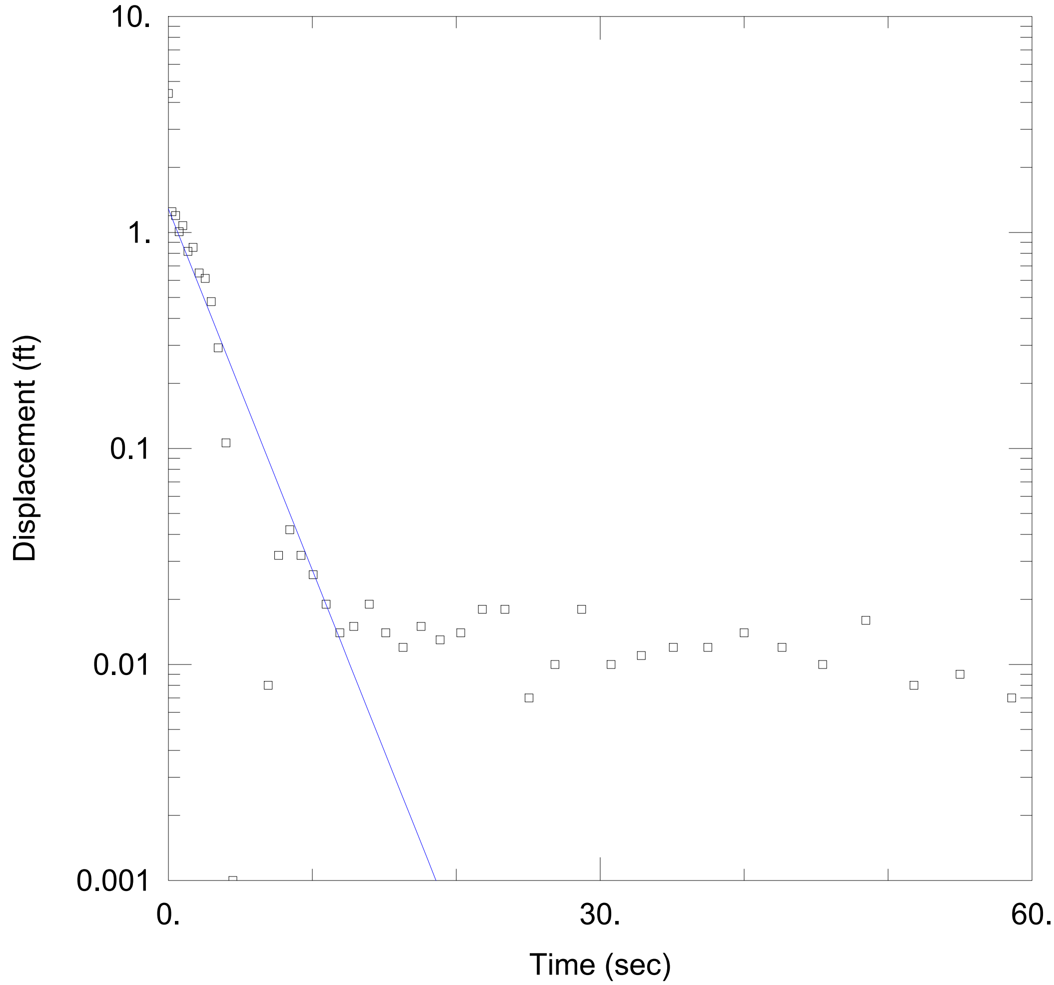
WELL DATA (W-96)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 21.45 ft
Casing Radius: 0.083 ft
Static Water Column Height: 21.7 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 41.19 ft/day
y0 = 0.666 ft



W-96 RISING HEAD

Data Set: O:\...\W-96_cks_Rising.aqt
Date: 02/14/20 Time: 10:54:02

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-96

AQUIFER DATA

Saturated Thickness: 37.73 ft
Anisotropy Ratio (Kz/Kr): 1.

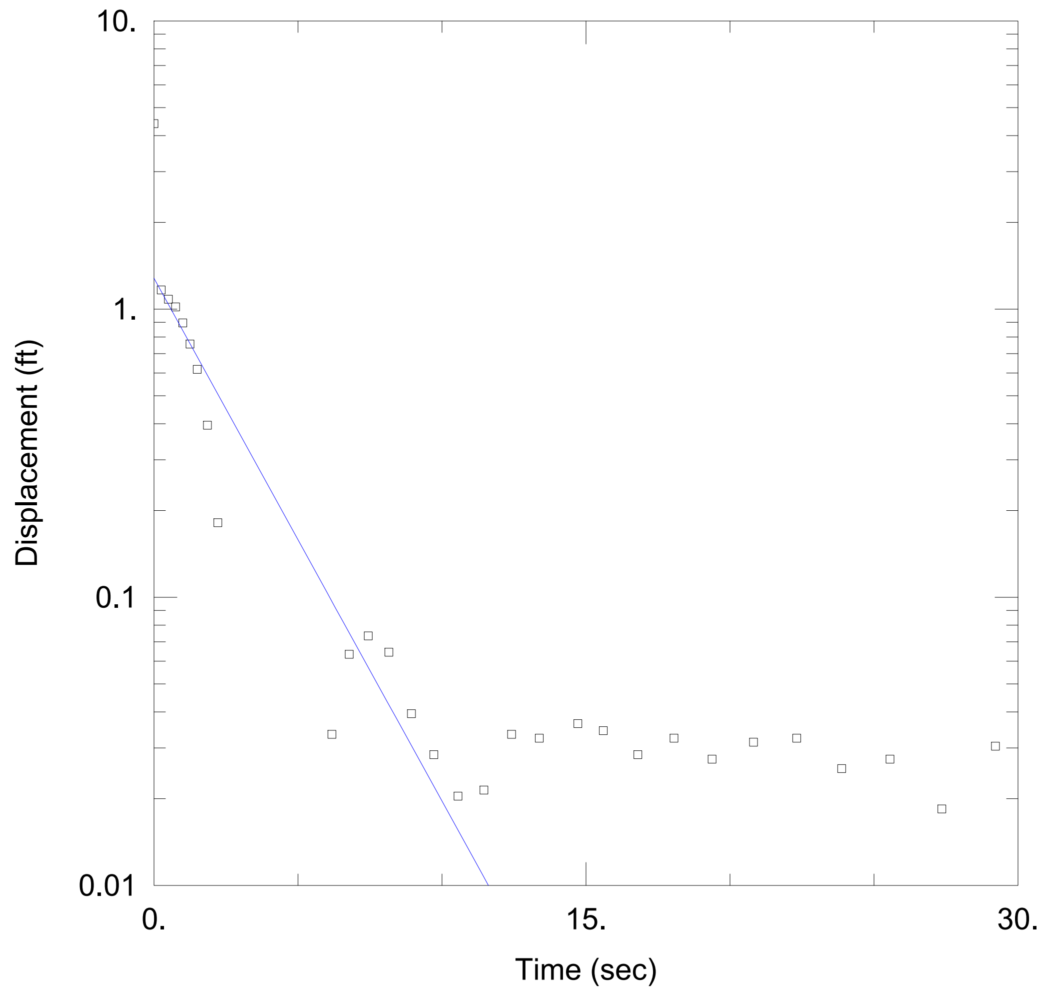
WELL DATA (W-96)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 21.45 ft
Casing Radius: 0.083 ft
Static Water Column Height: 21.7 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 75.97 ft/day
y0 = 1.283 ft



W-97 FALLING HEAD

Data Set: O:\...\W-97_cks_Falling.aqt
Date: 02/14/20
Time: 10:51:45

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-97

AQUIFER DATA

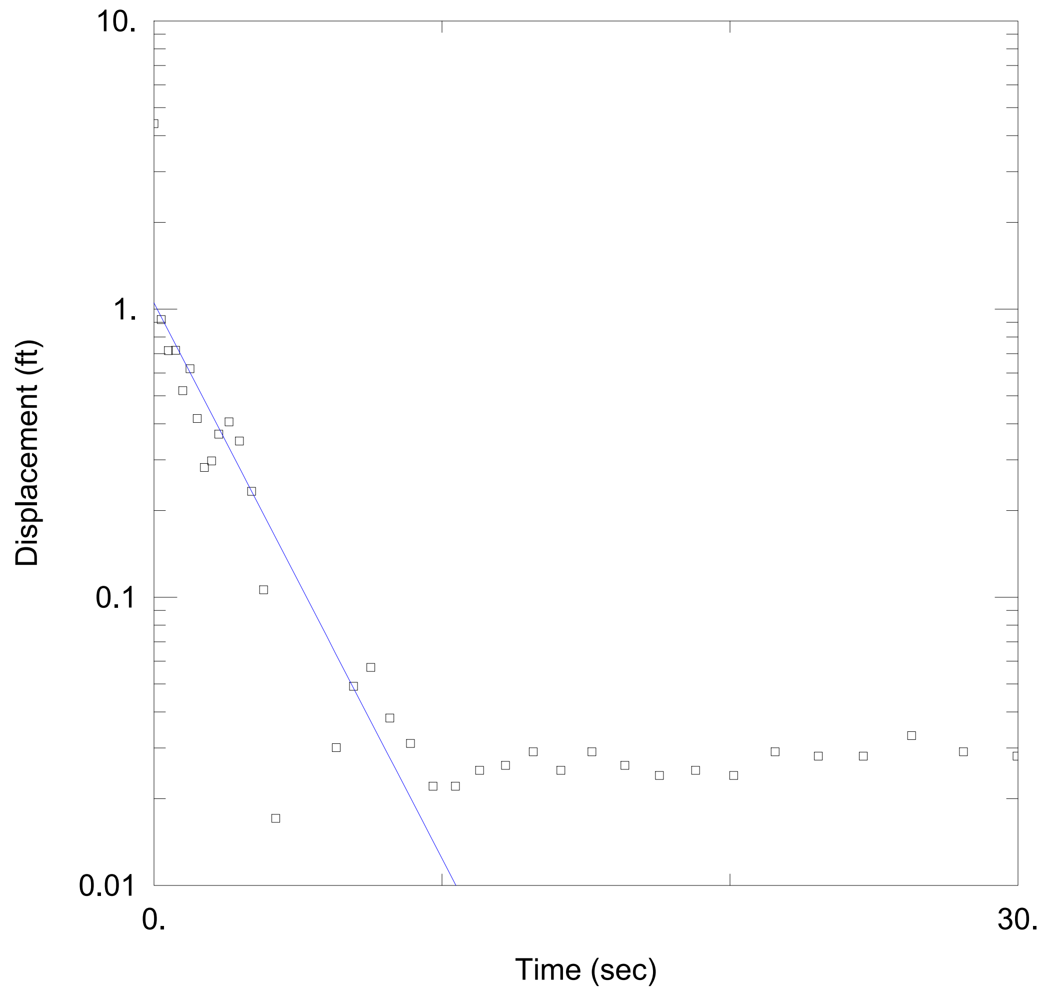
Saturated Thickness: 33.08 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (W-97)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 14.21 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.46 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 78. ft/day
y0 = 1.279 ft



W-97 RISING HEAD

Data Set: O:\...\W-97_cks_Rising.aqt
Date: 02/14/20
Time: 10:50:56

PROJECT INFORMATION

Company: AECOM
Client: Westinghouse
Location: Hopkins, SC
Test Well: W-97

AQUIFER DATA

Saturated Thickness: 33.08 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (W-97)

Initial Displacement: 4.4 ft
Total Well Penetration Depth: 14.21 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.46 ft
Screen Length: 5. ft
Well Radius: 0.083 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 82.89 ft/day
y0 = 1.05 ft

Appendix D
Conceptual Site Model

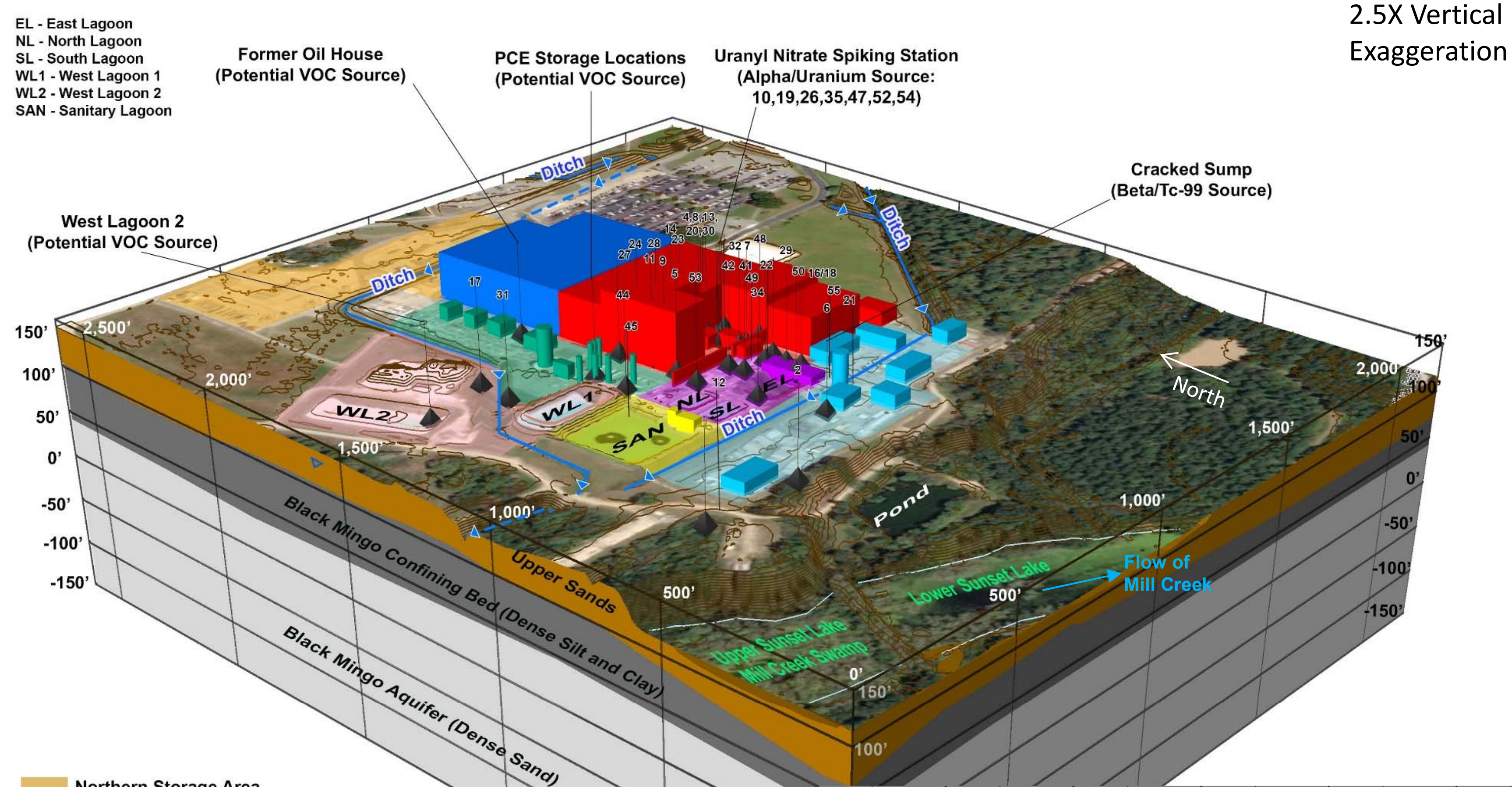
Conceptual Site Model
Rev. 1

Westinghouse Columbia

Site CSM Block Diagram – Known Spills

2.5X Vertical Exaggeration

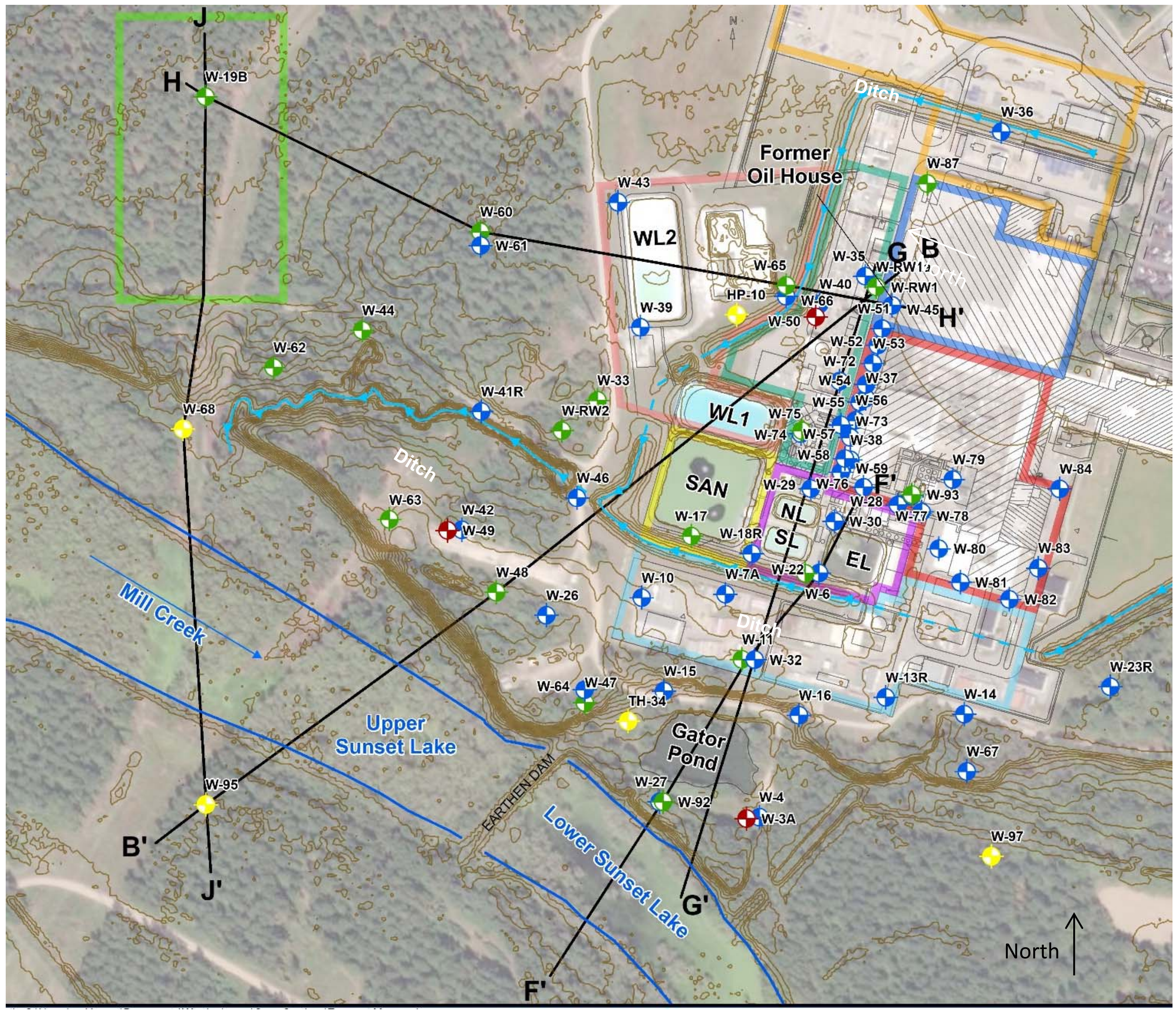
EL - East Lagoon
NL - North Lagoon
SL - South Lagoon
WL1 - West Lagoon 1
WL2 - West Lagoon 2
SAN - Sanitary Lagoon



Location Number	COPCs	Location Number	COPCs	Location Number	COPCs	Location Number	COPCs	Location Number	COPCs	Location Number	COPCs
1	CaF, U, NO3, NH3	9	U, HNO3	17	U, NH3	24	U, HNO3, HF, PCE	32	U, HF	48	HF, U,
2	U, HNO3	10	U, HNO3	18	U, T- 99	26	UNH, HNO3, U	34	U	49	U
4	UO2(F)2	11	UO2(NO3)2, HNO3, U	19	UO2(NO3)2, HNO3, U	27	U, HNO3	35	UNH, HNO3	50	U
5	UNH, HNO3, U	12	U, HNO3	20	HF, UO2(NO3)2, HNO3, U, F	28	U, T- 99	41	U, HNO3	52c 18c&46c	UNH, HNO3, U
6	U, HNO3, ADU	13	U, HNO3	21	U, T- 99	29		42	U	53	U
7	UNH, HNO3, U	14	HNO3, U	22	U, NH3	30	U, HNO3	44	Gasoline, U, Fuel Oil	54	UNH, HNO3, U
8	U, HNO3, HF	16	U, T- 99	23	U	31	U	47	UO2(NO3)2, HNO3, U	55	U, Tc-99

Northern Storage Area
Chemical Area
Mechanical Area
Sanitary Lagoon
Southern Storage Area
Wastewater Treatment
West Lagoon
Western Storage Area
Upper Sands
Surficial Aquifer Potentiometric Surface (2018)
Black Mingo

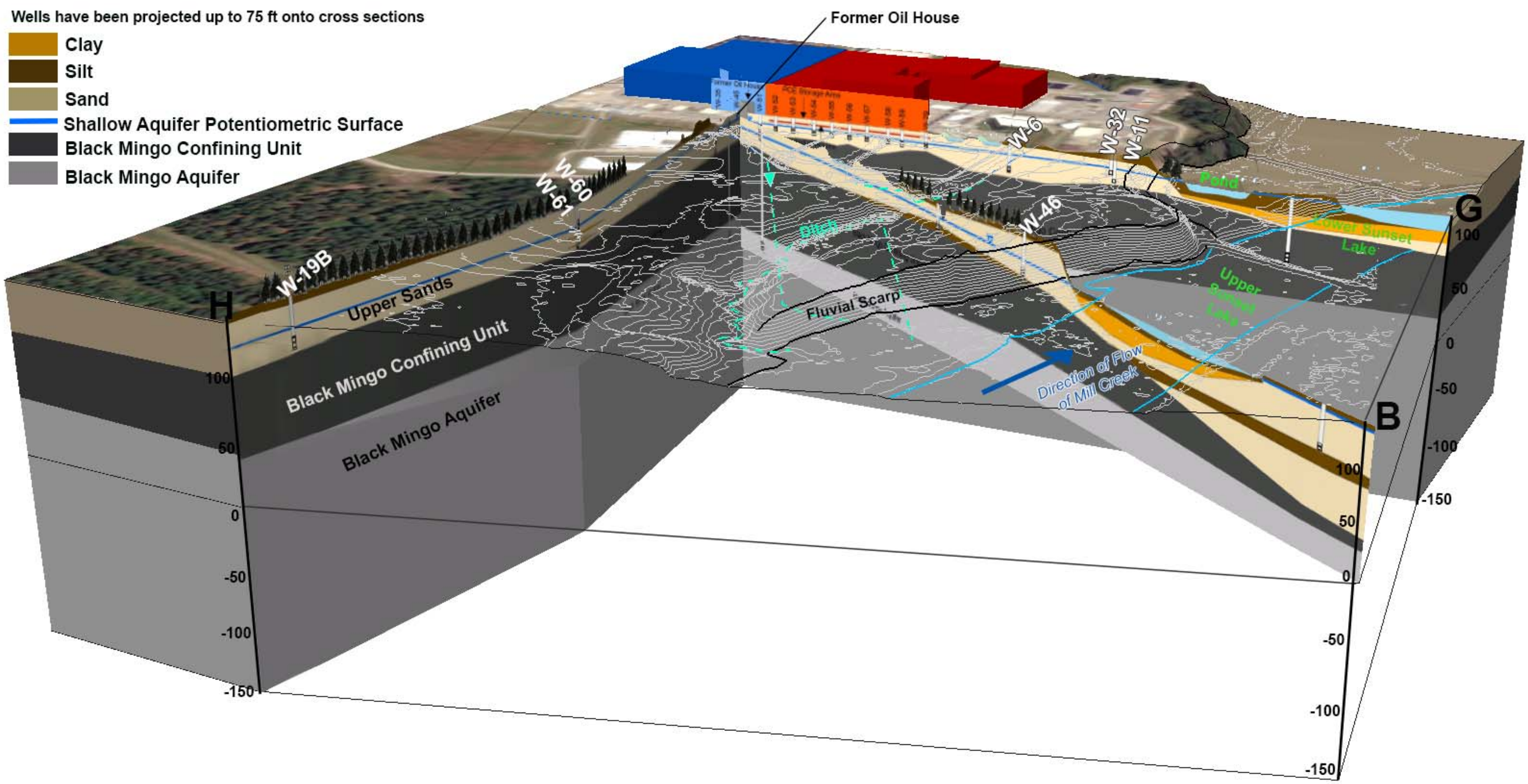
Site CSM Block Diagram – Transect Reference



EL - East Lagoon
NL - North Lagoon
SL - South Lagoon
WL1 - West Lagoon 1
WL2 - West Lagoon 2
SAN - Sanitary Lagoon

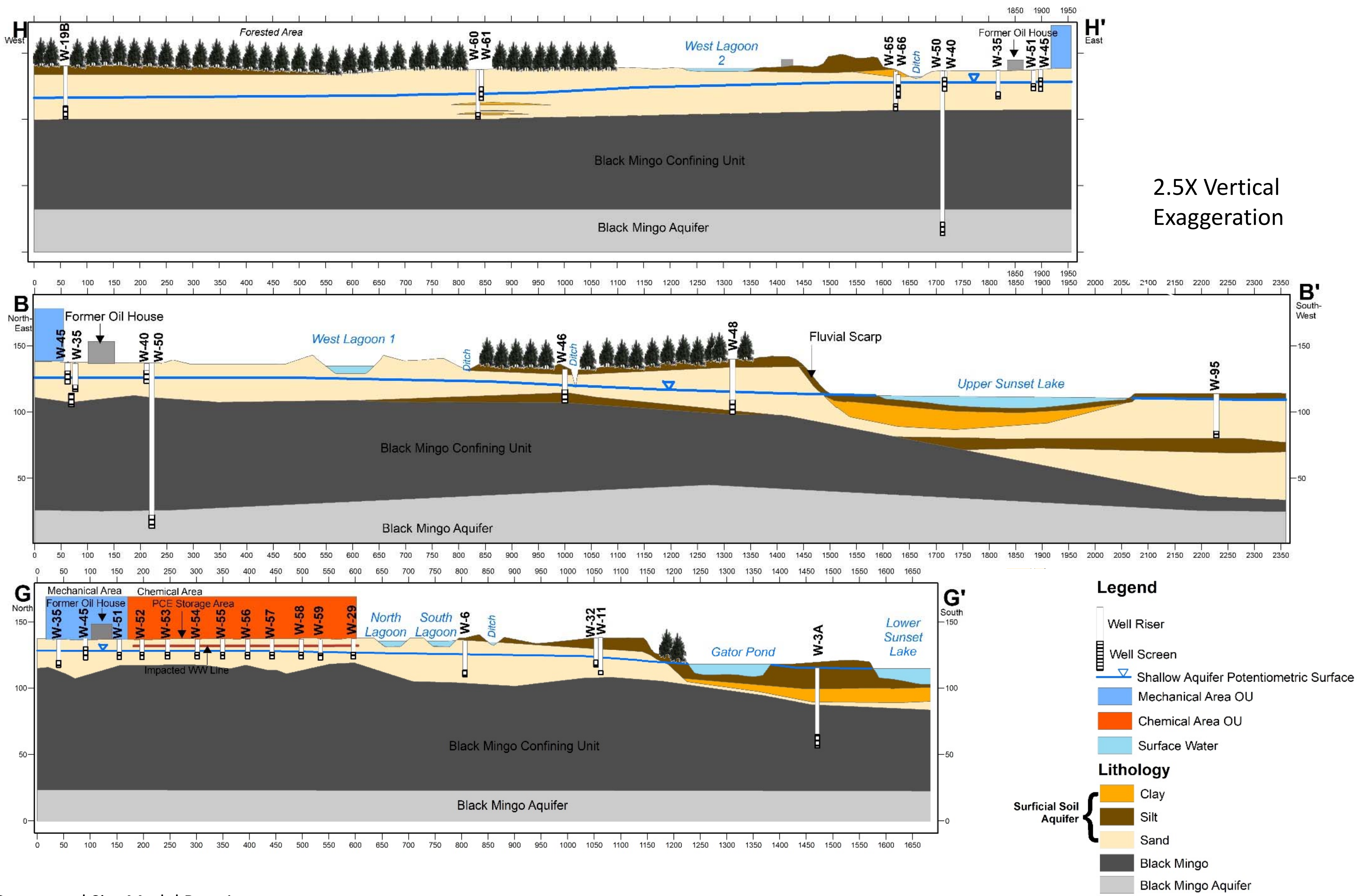
- Northern Storage Area
- Chemical Area
- Mechanical Area
- Sanitary Lagoon
- Southern Storage Area
- Wastewater Treatment
- West Lagoon
- Western Storage Area
- Upper Sands
- Surficial Aquifer Potentiometric Surface (2018)
- Black Mingo

Site CSM Block Diagram – Geology



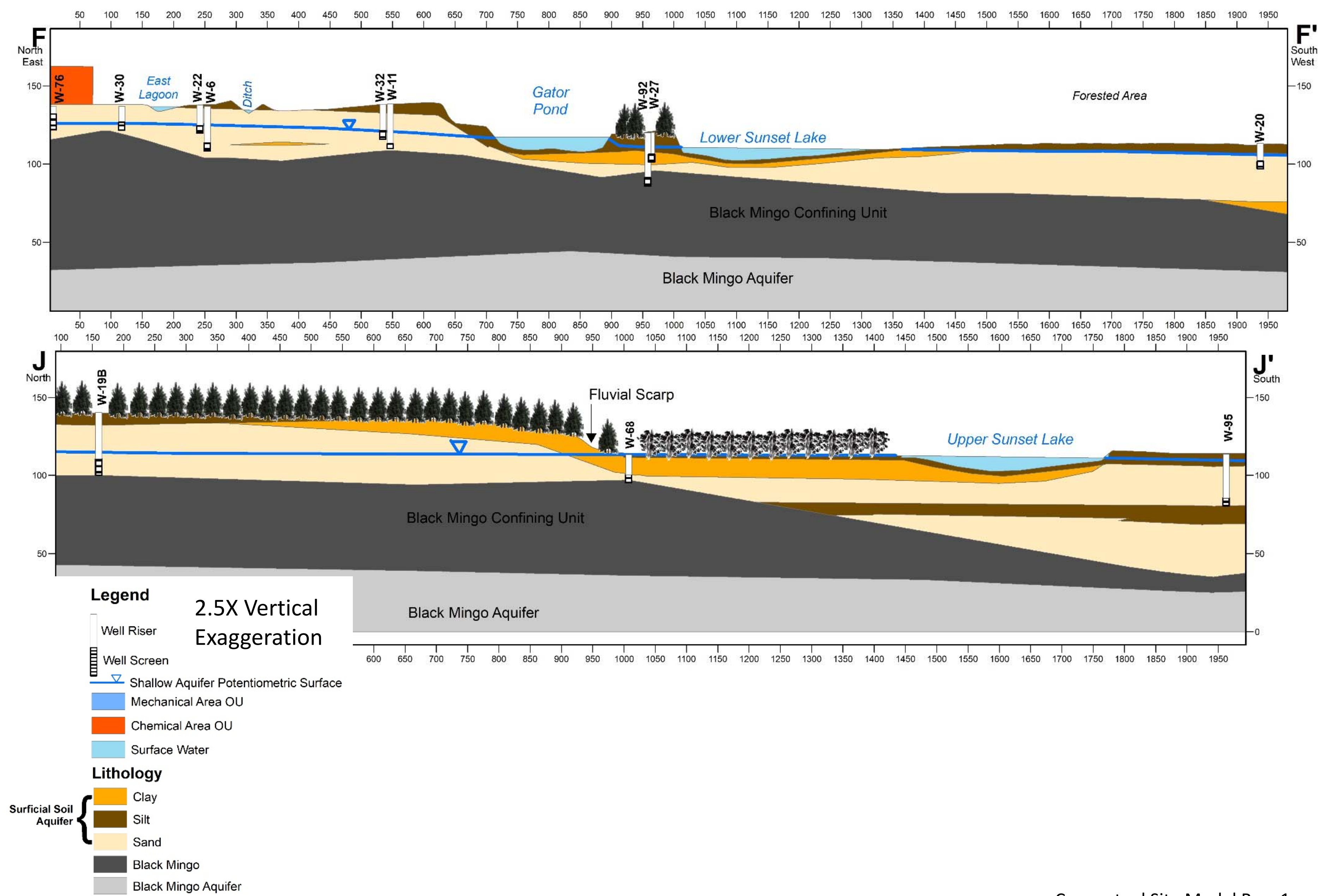
2.5X Vertical Exaggeration

Site CSM Cross Sections

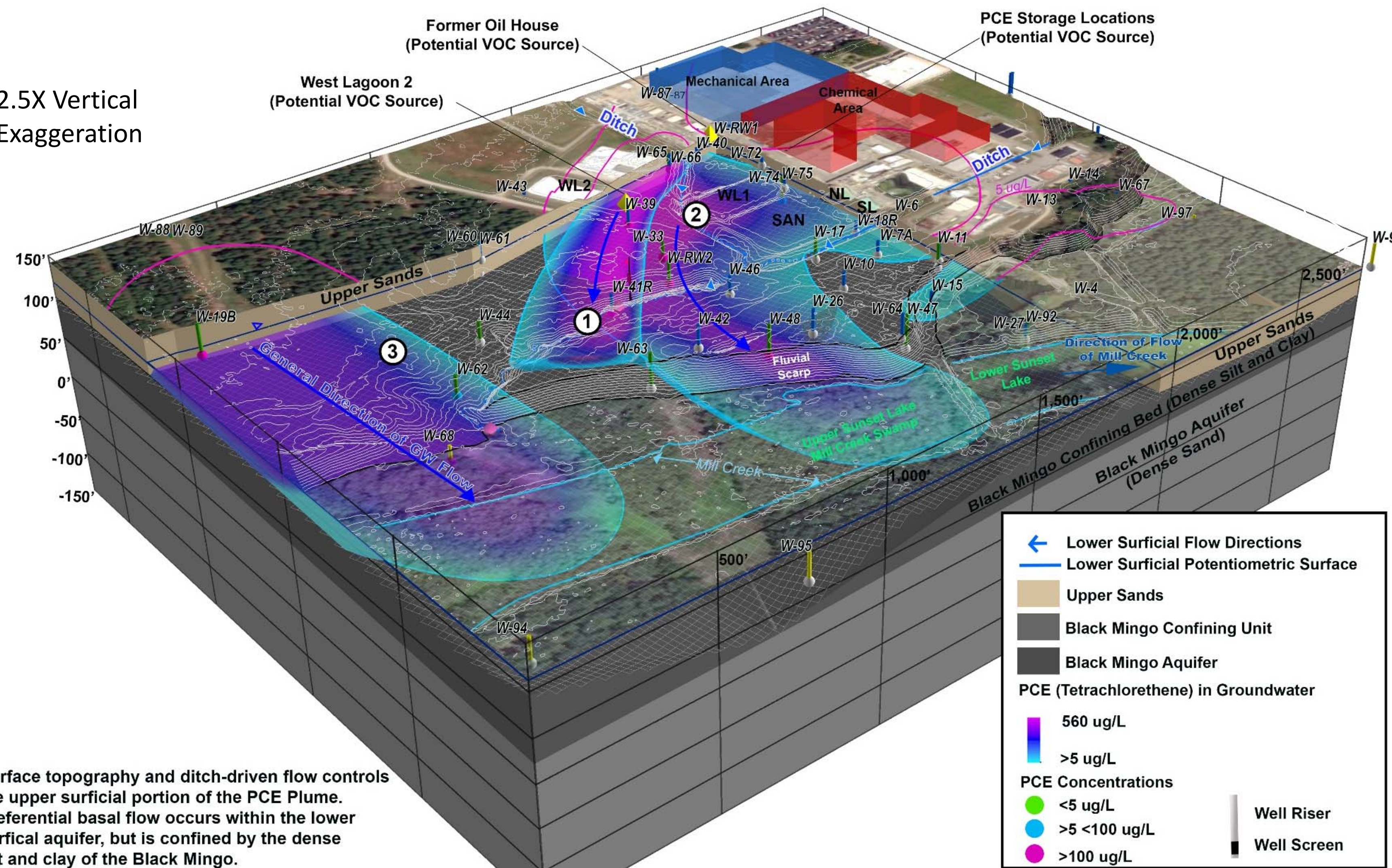


2.5X Vertical Exaggeration

Site CSM Cross Sections



Site CSM Block – PCE

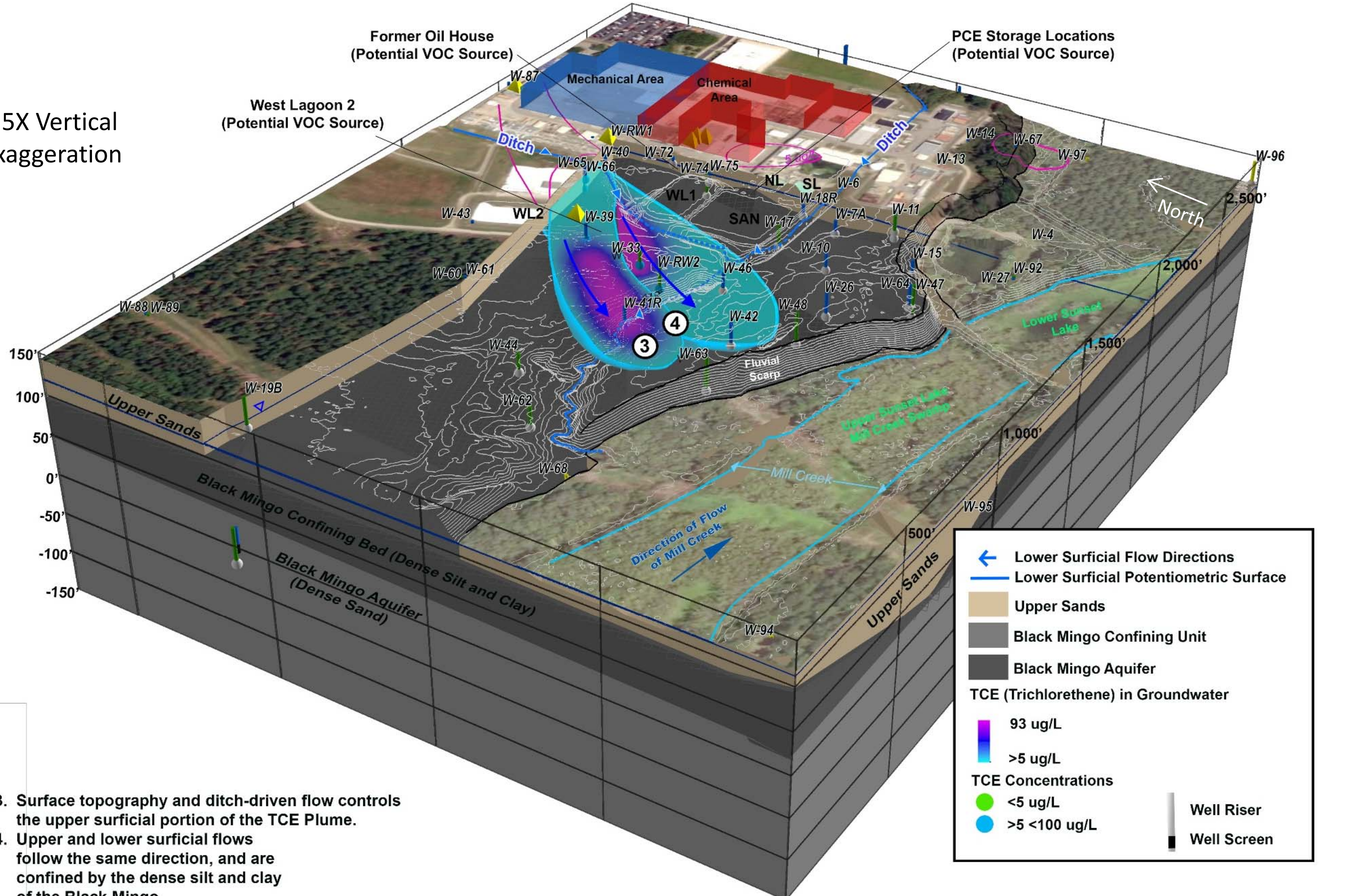


1. Surface topography and ditch-driven flow controls the upper surficial portion of the PCE Plume.
2. Preferential basal flow occurs within the lower surfical aquifer, but is confined by the dense silt and clay of the Black Mingo.
3. Western Groundwater Area of Concern source flows toward the floodplain above the Black Mingo confining unit.

Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Site CSM Block – TCE

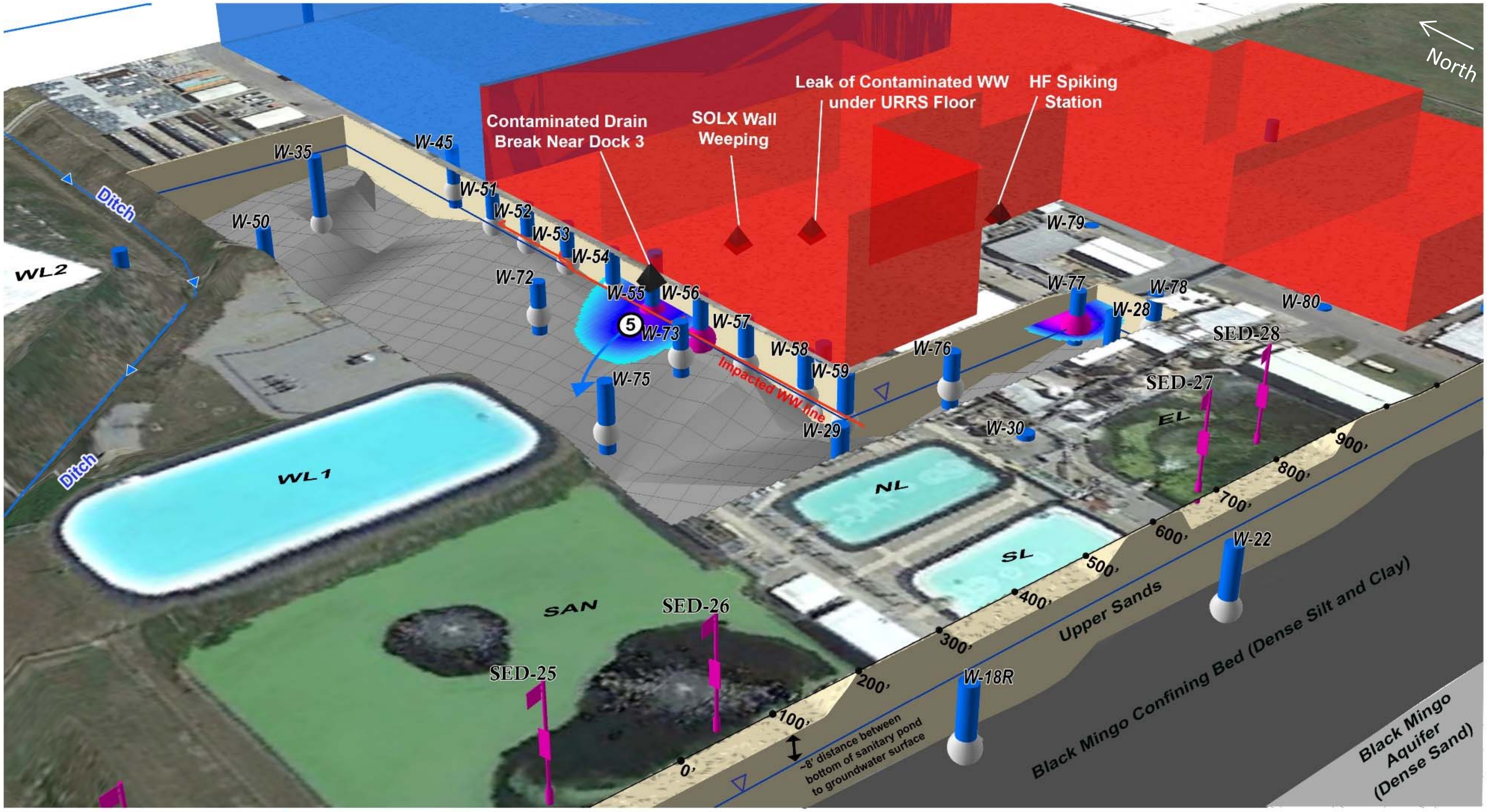
2.5X Vertical Exaggeration



3. Surface topography and ditch-driven flow controls the upper surficial portion of the TCE Plume.
4. Upper and lower surficial flows follow the same direction, and are confined by the dense silt and clay of the Black Mingo.

Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Site CSM Block –Uranium Sources



Uranium Concentrations
- >200 ug/L in Groundwater
- >30 ug/L in Groundwater
- Potential Radioactive Release Sources

Upper Surficial Groundwater Well

- Upper Sands
- Black Mingo Confining Unit
- Black Mingo Aquifer
- Surficial Aquifer Potentiometric Surface
- Surficial Aquifer Potentiometric Surface

5. Flow from source areas into uppermost surficial aquifer only and low rate of advection and dispersion

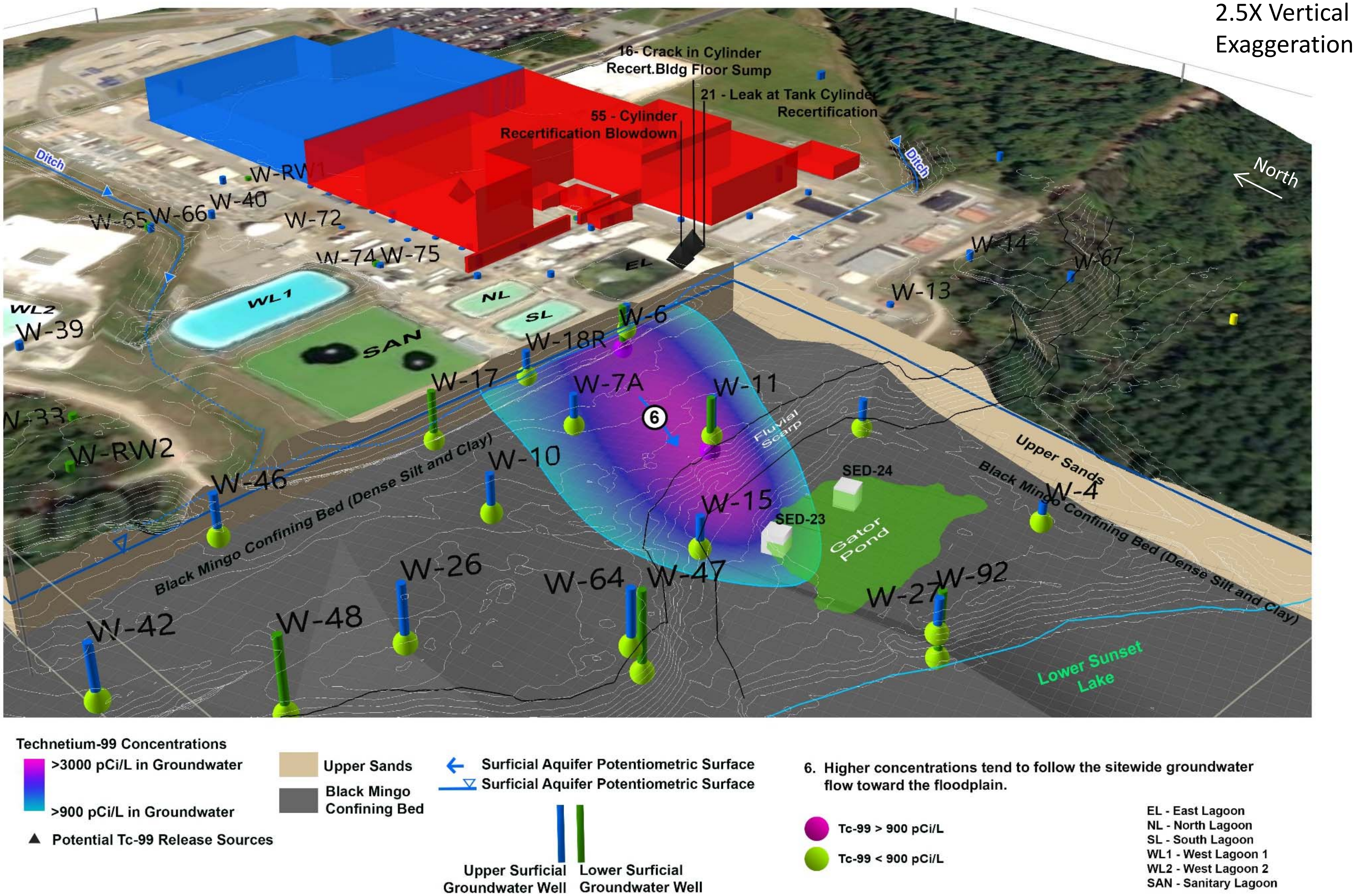
EL - East Lagoon
NL - North Lagoon
SL - South Lagoon
WL1 - West Lagoon 1
WL2 - West Lagoon 2
SAN - Sanitary Lagoon

- Uranium in Groundwater Above MCL
- Uranium in Groundwater Above MCL

2.5X Vertical Exaggeration

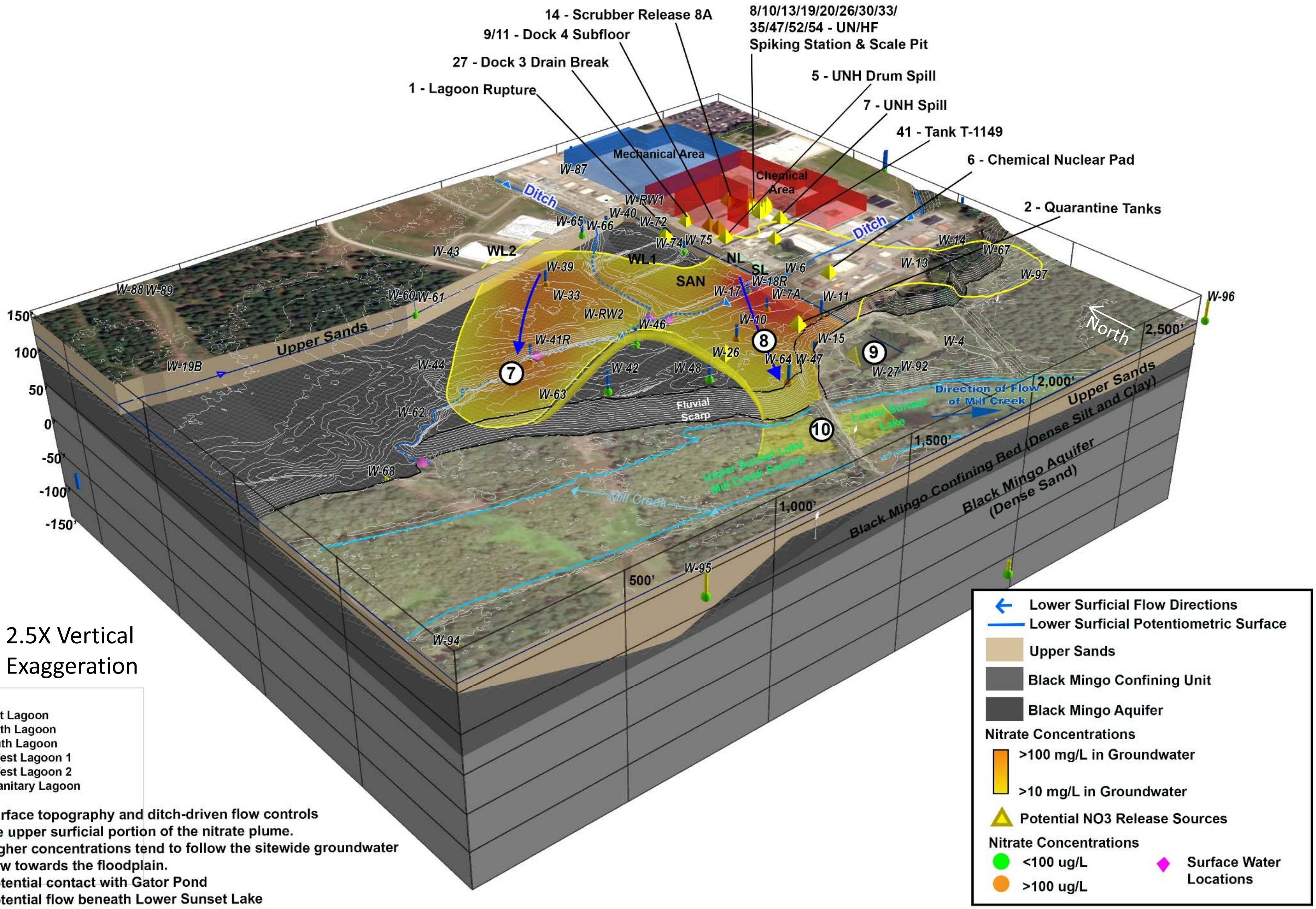
Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Site CSM Block –Tc-99 Sources



Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Site CSM Block –NO3 Sources



2.5X Vertical Exaggeration

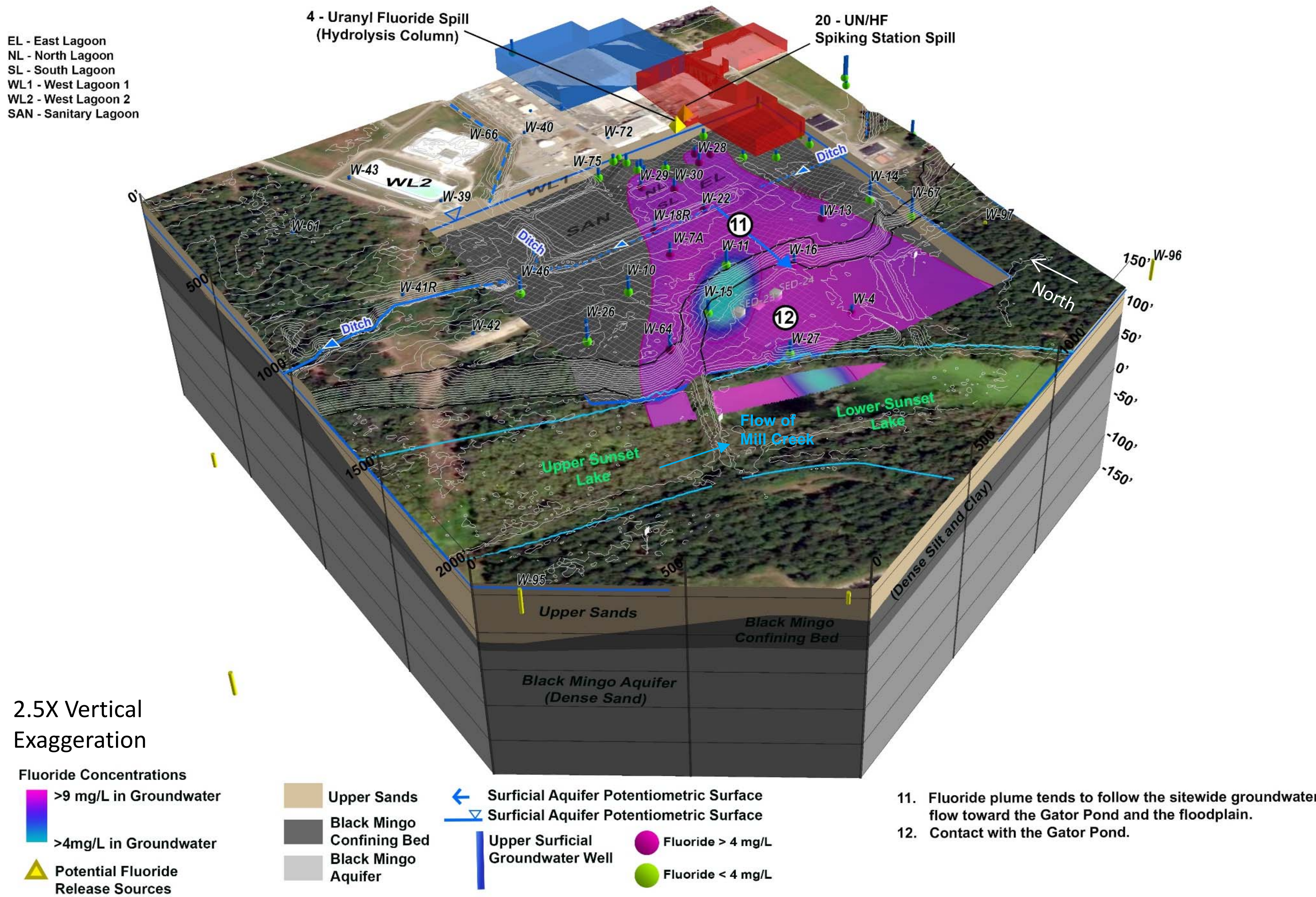
EL - East Lagoon
NL - North Lagoon
SL - South Lagoon
WL1 - West Lagoon 1
WL2 - West Lagoon 2
SAN - Sanitary Lagoon

7. Surface topography and ditch-driven flow controls the upper surficial portion of the nitrate plume.
8. Higher concentrations tend to follow the sitewide groundwater flow towards the floodplain.
9. Potential contact with Gator Pond
10. Potential flow beneath Lower Sunset Lake

Conceptual Site Model Rev. 1

Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Site CSM Block –Fluoride Sources



11. Fluoride plume tends to follow the sitewide groundwater flow toward the Gator Pond and the floodplain.
12. Contact with the Gator Pond.

Conceptual Site Model Rev. 1

Note: Most recent groundwater result used from 2018 through and including October 2019 groundwater results.

Appendix E
Laboratory Analytical Data (on CD)

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