



## **Sampling and Analysis Plan Addendum for the P-Area Groundwater Operable Unit (U)**

**CERCLIS Number: 81**

**SRNS-RP-2018-00261**

**Revision 0**

**February 2018**

### DISCLAIMER

**This document was prepared in conjunction with work accomplished under Contract No. DE-AC09-08SR22470 with the U.S. Department of Energy.**

**This work was prepared under an agreement with and funded by the U.S. Government. Neither the U.S. Government or its employees, nor any of its contractors, subcontractors or their employees, makes any express or implied: 1. warranty or assumes any legal liability for the accuracy, completeness, or for the use or results of such use of any information, product, or process disclosed; or 2. representation that such use or results of such use would not infringe privately owned rights; or 3. endorsement or recommendation of any specifically identified commercial product, process, or service. Any views and opinions of authors expressed in this work do not necessarily state or reflect those of the United States Government, or its contractors, or subcontractors**

**Printed in the United States of America  
Prepared for  
U. S. Department of Energy  
and  
Savannah River Site Nuclear Solutions, LLC  
Aiken, South Carolina**

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>LIST OF FIGURES .....</b>	<b>ii</b>
<b>LIST OF TABLES .....</b>	<b>iii</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Purpose for Sampling at the PAGW OU .....	1
1.2 Location of the PAGW OU.....	2
1.3 Surface Water.....	2
1.4 Objectives for the Sampling and Monitoring at the PAGW OU .....	4
<b>2.0 PAGW OU BACKGROUND.....</b>	<b>4</b>
2.1 Summary of Data Collected as part of the 2013 SAP and Compared to Risk- Based Thresholds .....	5
2.1.1 Surface Water.....	6
2.1.2 Depth-Discrete Groundwater Samples .....	7
2.1.3 MicroCED.....	10
2.1.4 Groundwater Monitoring .....	13
2.1.5 Aerial Extent of Groundwater Plumes.....	17
<b>3.0 PROJECT DATA QUALITY OBJECTIVES (DQOs).....</b>	<b>19</b>
3.1 PAGW OU .....	19
3.1.1 State the Problem .....	19
3.1.2 Identify the Goals of the Study .....	20
3.1.3 Identify Information Inputs.....	22
3.1.4 Sampling and Analysis Procedures.....	24
3.1.5 Define the Boundaries of the Study .....	24
3.1.6 Develop the Analytical Approach.....	25
3.1.7 Specify Performance or Acceptance Criteria.....	26
3.1.8 Develop the Plan for Obtaining the Data (Project Quality Objectives).....	27
<b>4.0 SAMPLING DESIGN AND RATIONALE.....</b>	<b>30</b>
4.1 Steel Creek Investigation .....	30
4.2 Groundwater Investigation.....	31
4.3 Surface Water and Groundwater Sampling .....	32
4.3.1 Surface Water.....	32
4.3.2 Groundwater .....	32
<b>5.0 ANALYTICAL PLAN.....</b>	<b>34</b>
5.1 Data Quality Levels .....	34
5.2 Field Analytical Sampling Quality Assurance/Quality Control .....	35
5.3 Sample Matrix Table.....	36
5.4 Sample Location Map .....	37
<b>6.0 FIELD IMPLEMENTATION .....</b>	<b>37</b>
6.1 List of Sampling/Collection Equipment .....	37
6.2 Investigation-Derived Waste .....	38
<b>7.0 REFERENCES.....</b>	<b>39</b>

## LIST OF FIGURES

FIGURE 1.	LOCATION OF P AREA AT THE SAVANAH RIVER SITE .....	44
FIGURE 2.	LOCATION OF THE PAGW OU .....	45
FIGURE 3.	STEEL CREEK SURFACE WATER MONITORING LOCATIONS, PAGW OU	46
FIGURE 4.	TIME-TREND OF TRITIUM CONCENTRATIONS (pCi/mL) IN STEEL CREEK SURFACE WATER, PAGW OU .....	47
FIGURE 5.	TIME-TREND OF TCE CONCENTRATIONS (UG/L) IN STEEL CREEK SURFACE WATER, PAGW OU.....	48
FIGURE 6.	LOCATION OF SAP 2013 CPT AND DPT GROUNDWATER SAMPLING LOCATIONS, PAGW OU .....	49
FIGURE 7.	PCE DEPTH-DISCRETE DATA, EASTERN CPTs, PAGW OU .....	50
FIGURE 8.	TCE DEPTH-DISCRETE DATA, EASTERN CPTs, PAGW OU.....	51
FIGURE 9.	TRITIUM DEPTH-DISCRETE DATA, EASTERN CPTs, PAGW OU .....	52
FIGURE 10.	TRITIUM DEPTH-DISCRETE DATA AT THE PRSBs IN THE GAU, PAGW OU .....	53
FIGURE 11.	MICROCED TREATABILITY STUDY AREA, PAGW OU .....	54
FIGURE 12.	PHOTOGRAPH OF BIO TRAP <sup>®</sup> FROM INJECTION WELL PMW003DL.....	55
FIGURE 13.	POTENTIOMETRIC SURFACE OF THE UAZ, PAGW OU .....	56
FIGURE 14.	POTENTIOMETRIC SURFACE OF THE LAZ, PAGW OU .....	57
FIGURE 15.	TCE GROUNDWATER PLUME IN THE UAZ, PAGW OU .....	58
FIGURE 16.	TCE GROUNDWATER PLUME IN THE LAZ, PAGW OU .....	59
FIGURE 17.	C12DCE GROUNDWATER PLUME IN THE UAZ, PAGW OU .....	60
FIGURE 18.	C12DCE GROUNDWATER PLUME IN THE LAZ, PAGW OU .....	61
FIGURE 19.	PCE GROUNDWATER PLUME IN THE UAZ, PAGW OU .....	62
FIGURE 20.	PCE GROUNDWATER PLUME IN THE LAZ, PAGW OU .....	63
FIGURE 21.	PRINCIPAL GROUNDWATER AREAS, PAGW OU.....	64
FIGURE 22.	TRITIUM GROUNDWATER PLUME IN THE UAZ, PAGW OU .....	65
FIGURE 23.	TRITIUM GROUNDWATER PLUME IN THE LAZ, PAGW OU.....	66
FIGURE 24.	TRITIUM GROUNDWATER PLUME IN THE GAU, PAGW OU .....	67
FIGURE 25.	PROPOSED SURFACE WATER AND WELL LOCATIONS IN STEEL CREEK, PAGW OU.....	68
FIGURE 26.	PROPOSED SOIL SAMPLING, CPT, AND WELL INSTALLATIONS IN THE ELBOW PORTION OF THE DISTAL AREA, PAGW OU .....	69
FIGURE 27.	PROPOSED STEEL CREEK SURFACE WATER MONITORING LOCATIONS, PAGW OU.....	70
FIGURE 28.	PROPOSED LONG-TERM GROUNDWATER MONITORING IN THE UAZ, PAGW OU .....	71
FIGURE 29.	PROPOSED LONG-TERM GROUNDWATER MONITORING IN THE LAZ, PAGW OU .....	72
FIGURE 30.	PROPOSED LONG-TERM GROUNDWATER MONITORING IN THE GAU, PAGW OU .....	73
FIGURE 31.	PROPOSED LONG-TERM SYNCHRONOUS WATER LEVELS, PAGW OU ...	74

## LIST OF TABLES

TABLE 1.	STEEL CREEK SURFACE WATER DATA SUMMARY (2014-2016).....	78
TABLE 2.	DEPTH-DISCRETE CPT PCE, TCE, AND TRITIUM DATA.....	80
TABLE 3.	CPT DATA SUMMARY .....	81
TABLE 4.	GORDON AQUIFER TRITIUM INVESTIGATION DATA SUMMARY.....	83
TABLE 5.	DATA SUMMARY FROM THE MICROCED TREATABILITY STUDY SITE (2014-2016) .....	84
TABLE 6.	CSIA DATA SUMMARY .....	86
TABLE 7.	MICROBIAL ANALYSES DATA SUMMARY .....	87
TABLE 8.	QUANTARRAY® DATA SUMMARY (PMP005DL) .....	88
TABLE 9.	SUMMARY OF DETECTED CONSTITUENTS IN UAZ (2014-2016).....	89
TABLE 10.	SUMMARY OF DETECTED CONSTITUENTS IN LAZ (2014-2016).....	91
TABLE 11.	SUMMARY OF DETECTED CONSTITUENTS IN GAU (2014-2016) .....	93
TABLE 12.	STEEL CREEK AND DISTAL AREA CHARACTERIZATION SAMPLE MATRIX TABLE .....	94
TABLE 13.	LONG-TERM SURFACE WATER AND GROUNDWATER MONITORING WELL SAMPLING MATRIX TABLE .....	136
TABLE 14.	LIST OF MONITORING WELLS FOR SYNCHRONOUS WATER LEVELS .....	139
TABLE 15.	CRDLs COMPARED TO RISK-BASED SCREENING LEVELS FOR SURFACE WATER AND GROUNDWATER .....	143
TABLE 16.	MDA COMPARED TO WATER RADIOLOGICAL MCL/PRG .....	146
TABLE 17.	DATA QUALITY OBJECTIVE WORKSHEET FOR SURFACE WATER AND GROUNDWATER MEDIA .....	147
TABLE 18.	OFFSITE LABORATORY ANALYTICAL SPECIFICATIONS TABLE FOR SPECIFIC TCL ANALYTES: SOIL MEDIA (DISTAL AREA CHARACTERIZATION) .....	148
TABLE 19.	SRNL LABORATORY ANALYTICAL SPECIFICATIONS TABLE FOR VOC ANALYTES: SOIL MEDIA (DISTAL AREA CHARACTERIZATION) .....	148
TABLE 20.	OFFSITE LABORATORY ANALYTICAL SPECIFICATIONS TABLE FOR TAL/TCL ANALYTES: SURFACE OR GROUNDWATER MEDIA .....	149
TABLE 21.	LABORATORY ANALYTICAL SPECIFICATIONS TABLE FOR RADIOLOGICAL ANALYTES IN SOIL, SEDIMENT, SURFACE, AND GROUNDWATER MEDIA	151
TABLE 22.	PRESERVATIVES, HOLDING TIMES, AND SAMPLE CONTAINERS.....	152
TABLE 23.	MINIMUM FIELD QUALITY CONTROL/QUALITY ASSURANCE SAMPLING REQUIREMENTS.....	154

## LIST OF ACRONYMS AND ABBREVIATIONS

<b>Acronym</b>	<b>Meaning</b>
<sup>12</sup> C	Carbon-12
<sup>13</sup> C	Carbon-13
ac	acres
ACP	Area Completion Projects
amsl	Above Mean Sea Level
bls	Below Land Surface
c12DCE	cis-1,2-Dichloroethylene
CA	Cost Analysis
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CPT	Cone Penetrometer Technology
CRDL	Contract Required Detection Limit
CSIA	Compound Specific Isotope Analysis
DQD	Decision Quality Data
DOECAP	USDOE Consolidate Audit Program
DPT	Direct Push Technology
DQOs	Data Quality Objectives
EE	Engineering Evaluation
EOS <sup>®</sup>	Emulsified Oil Substrate
ERDMS	Environmental Restoration Data Management System
ft	Feet
ft <sup>3</sup>	Cubic Feet
GAU	Gordon Aquifer Unit
HCM	Hydrogeologic Conceptual Model
IDW	Investigation Derived Waste
IOU	Integrator Operable Unit
ISCO	In Situ Chemical Oxidation
km	kilometer
L	Liter
LAZ	Lower Aquifer Zone
LLC	Limited Liability Company
m	Meter
m <sup>3</sup>	Cubic Meter
MCL	Maximum Contaminant Level
MDL	Minimum Detection Limit
mi	Mile
MicroCED	Micro-organism Chlorinated Ethene Destruction
mL	Milliliter
OU	Operable Unit
P-RBC	P-Reactor Building (105-P) Complex
PAGW	P-Area Groundwater
PAOU	P-Area Operable Unit
PCE	Tetrachloroethylene

pCi	Picocuries
PQO	Project Quality Objectives
PRG	Preliminary Remediation Goal
PRSBs	P-Reactor Seepage Basins
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RSER	Removal Site Evaluation Report
RSL	USEPA Regional Screening Level
SAP	Sampling and Analysis Plan
SCDHEC	South Carolina Department of Health and Environmental Control
SD	Screening Level Data
sec	Second
SRNL	Savannah River National Laboratory
SRNS	Savannah River Nuclear Solutions, LLC
SRS	Savannah River Site
ssEQL	Sample specific estimated Quantitation Limit
TCE	Trichloroethylene
TCL	Target Compound List
UAZ	Upper Aquifer Zone
ug	micrograms
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
UTRA	Upper Three Runs Aquifer
VOCs	Volatile Organic Compounds
V&V	Verified and Validated
WSRC	Westinghouse Savannah River Company, LLC prior to December 8, 2005; Washington Savannah River Company, LLC after December 8, 2005

## **1.0 INTRODUCTION**

This Sampling and Analysis Plan (SAP) Addendum was prepared in accordance with the United States Environmental Protection Agency (USEPA) *Uniform Federal Policy for Quality Assurance Project Plans* (USEPA, et al, 2005) and the *Area Completion Projects Programmatic Quality Assurance Project Plan for Environmental Data Collection and Management* (SRNS 2012c). Project or task specific information for the waste unit is documented in the SAP and refers to the program level Quality Assurance Program Plan (QAPP) (SRNS 2012c) for the program level quality objectives, standard operating procedures, and quality assurance/quality control procedures.

### **1.1 Purpose for Sampling at the PAGW OU**

The P-Area Groundwater (PAGW) Operable Unit (OU) Core Team (United States Department of Energy [USDOE], the USEPA, and the South Carolina Department of Health and Environmental Control [SCDHEC]) met in January 2017 and agreed on the completeness of field activities associated with the 2013 SAP (SRNS 2013), problems warranting action, and likely response actions. The Core Team recognized that tritium and volatile organic compounds (VOCs) are present over extensive areas in two aquifer zones that are not collocated. Therefore, any response action(s) designed to meet maximum contaminant levels (MCLs) would be very large in scope. However, it was acknowledged that there is an opportunity to address portions of the overall groundwater plumes prior to a final remedy decision since Steel Creek is currently impacted by discharges of trichloroethylene (TCE) contaminated groundwater above the MCL. The Core Team agreed that a better understanding on the extent of VOC groundwater contamination in the distal area and impact to Steel Creek was needed.

In May 2017, the PAGW OU Core Team met to discuss the type and location of a likely response action(s) as well as a proposal for characterization of the area being impacted by discharges of TCE contaminated groundwater to Steel Creek. Additional characterization to determine the extent of VOC groundwater contamination in the distal area of the VOC groundwater plumes was also discussed. The Core Team agreed to pursue the implementation of a non-time critical removal action through a Removal Site Evaluation Report

(RSER)/Engineering Evaluation (EE)/Cost Analysis (CA) to address the TCE groundwater plumes that are impacting Steel Creek (SRNS 2017a). The Core Team also agreed to submittal of a SAP Addendum to address data uncertainties related to impact(s) to Steel Creek and extent of VOC groundwater plumes in the distal area near Steel Creek.

This SAP Addendum is being prepared to allow for the collection of additional data to evaluate impact to Steel Creek, determine extent of VOC groundwater plumes in the distal area, and establish long-term groundwater and surface water monitoring at the PAGW OU. The elements of the SAP Addendum include the following:

- Characterization of Steel Creek surface water and shallow groundwater in areas potentially impacting Steel Creek;
- Characterization in an area along the bluff near Steel Creek (including the “elbow portion”) to determine extent of VOC groundwater plumes; and
- Long-term surface water and groundwater monitoring and reporting.

## **1.2 Location of the PAGW OU**

P Area is in the central portion of Savannah River Site (SRS) and consists of an inactive nuclear reactor, several support buildings, and several waste disposal sites and is approximately 9.7 km (6 mi) west of the nearest SRS boundary (Figure 1). The PAGW OU encompasses the groundwater below P Area and outlying areas that have been impacted by reactor and facility operations. Figure 2 shows the groundwater modeling boundaries developed as part of the hydrogeologic conceptual model (HCM).

## **1.3 Surface Water**

The topography near the P-Reactor Building (105-P) Complex (P-RBC) is higher in elevation (>101 m [330 ft]) than the surrounding land (interfluvial zone). Surface drainage on the west side of the P-RBC area is to the northwest, towards Steel Creek. The headwaters of Steel Creek reside at an elevation of 85 m (280 ft) above mean sea level (amsl) and incise down to ~61 m (~200 ft) amsl where Steel Creek enters L Lake. Steel Creek is the largest drain influence on the Upper Three Runs Aquifer (UTRA) within the area of interest. The incision of Steel Creek in the area of interest results in a steep elevation drop from the bluff to the creek (up to 10 m [35

ft]), with the shallowest layers truncated above the stream elevations. Surface drainage on the east side of the P-RBC area drains to unnamed tributaries that drain to PAR Pond. Surface drainage on the south side of the P-RBC area drains to wetlands and unnamed tributaries to Meyers Branch.

During most of the year, the elevation of the water table near the headwaters of Steel Creek is approximately the same as the elevation of the Steel Creek streambed. Consequently, Steel Creek, which is a perennial stream, is a discharge point for the UTRA. The upper portion of Steel Creek consists of the headwaters of Steel Creek, the upper reaches of Steel Creek, and a wetlands area located just upgradient of the headwaters of L Lake. The headwaters of Steel Creek originate northwest of P Area. The creek flows southwesterly about 3,600 m (12,000 ft) before it enters L Lake.

Past flow for Steel Creek was influenced, to a large extent, by SRS operations. In 1954, Steel Creek began receiving thermal effluents from P- and L-Reactors. By 1961, both reactors released a total of 22.6 m<sup>3</sup>/sec (800 ft<sup>3</sup>/sec) of thermal effluent into Steel Creek (Hayes 1982). In 1964, all P-Reactor effluent was diverted to PAR Pond, and L-Reactor was the only source supplying thermal effluent to Steel Creek. Flow along the segment of Steel Creek between P Area and just upgradient of where L-Reactor discharged to Steel Creek was reduced to natural flow conditions. To date, natural flow exists within Steel Creek, and natural vegetation has repopulated the banks and streambed.

Groundwater contamination from P Area and the P-Reactor Seepage Basins (PRSBs) is known to be discharging into the upper portion of Steel Creek. Steel Creek is part of the Steel Creek Integrator Operable Unit (IOU). An IOU is defined as surface water bodies (e.g., streams and lakes) and associated wetlands, including sediment/soil, sediment, and related biota. An IOU represents the integration of potential contamination discharged to surface water or migrating through groundwater from OUs, site evaluation areas, National Pollutant Discharge Elimination System outfalls, and operational facilities to points of potential receptor exposure.

Steel Creek is under investigation under the IOU Program because it represents a possible pathway for the release of contamination from SRS activities, within its watershed, to off-unit receptors and the environment. The P-Reactor Discharge Canal leading to Steel Creek also is

being investigated as part of the Steel Creek IOU. The portion of the P-Reactor Discharge Canal to PAR Pond (including pre-cooling ponds) is being investigated as part of the Lower Three Runs IOU.

#### **1.4 Objectives for the Sampling and Monitoring at the PAGW OU**

The primary objective of this SAP Addendum is to develop a plan to generate sufficient representative data to further characterize and support clean up decisions for the PAGW OU; specifically, at and near Steel Creek and to provide for long-term monitoring and trending of groundwater contamination. This SAP Addendum supports the following objectives:

- Monitor surface water impacts to Steel Creek resulting from contaminated groundwater discharge through establishment of additional surface water locations;
- Monitor shallow groundwater to assess area(s) of impact to Steel Creek through the installation of shallow wells;
- Determine extent of groundwater contamination in the distal area of the VOC groundwater plumes through the collection of soil samples for headspace analysis;
- Determine lithologic changes between the neck and distal areas of the VOC groundwater plumes that may be controlling flow and direction through the collection of core and geophysical logging;
- Determine geotechnical information in the elbow portion of the distal area along Steel Creek to support the evaluation of possible future removal and/or action(s) through the collection of undisturbed samples and cone penetrometer logging; and
- Provide long-term surface water and groundwater monitoring and reporting at the PAGW OU.

## **2.0 PAGW OU BACKGROUND**

Between 2002 and 2005, extensive soil, soil-gas, and groundwater pre-characterizations were performed to discern source(s) to groundwater and define the nature and extent of groundwater contamination (WSRC 2002). In 2006, characterization of source areas to groundwater as identified in the Comprehensive Environmental Response, Compensation and Liability Act

(CERCLA) Remedial Investigation (RI) Work Plan for the P-Area Operable Unit (PAOU) (WSRC 2006b) was conducted and the outcome of that work was documented in the Resource Conservation and Recovery Act (RCRA) Facility Investigation/RI Report with Baseline Risk Assessment and Corrective Measures Study/Feasibility Study for the PAOU (WSRC 2008). All source areas determined to have the potential to impact PAGW OU groundwater have been remediated (WSRC 2006a, SRNS 2012d). In 2010, additional groundwater PAGW OU pre-characterization was performed to determine the overall extent of the groundwater plumes, address data uncertainty, and install additional groundwater monitoring wells to provide long-term monitoring of the groundwater plumes. The 2010 pre-characterization results and all preceding characterization activities were presented in a scoping summary (SRNS-EN-2013-0009) in support of a March 2013 PAGW OU scoping meeting. The Core Team agreed to the following: a) submittal of a SAP to support additional characterization; b) to include a data summary of the previous investigations in the SAP; and c) to allow the approved SAP to fulfill the requirements for an RI work plan. The *Sampling and Analysis Plan for the P-Area Groundwater Operable Unit* was approved by the USEPA and SCDHEC in October 2013 (SRNS 2013).

In January 2017, the Core Team met to discuss the results of the 2013 SAP. Based on current data and identified impact to Steel Creek, an additional meeting was held in May 2017 and the Core Team agreed to a Non-Time Critical RSER/EE/CA to evaluate removal action(s) for the VOC groundwater plumes and a SAP Addendum to address data uncertainties in the distal area and Steel Creek.

## **2.1 Summary of Data Collected as part of the 2013 SAP**

Field activities associated with the 2013 SAP are grouped into three (3) activities: 1) surface water; 2) depth-discrete groundwater sampling; and 3) groundwater monitoring well sampling. Each of the activities had a defined objective and included the following activities:

### Surface Water

- Perform surface water sampling at four (4) locations in Steel Creek.

#### Depth-Discrete Groundwater Sampling

- Discern the presence and extent of tritium groundwater contamination in the Gordon Aquifer Unit (GAU) at the PRSB; and
- Determine the extent of VOC groundwater contamination to the east of P Area towards PAR Pond.

#### Groundwater Monitoring Well Sampling

- Install seven (7) new wells and convert an existing GAU piezometer to a permanent monitoring well; and
- Perform groundwater sampling and synchronous water levels at wells and piezometers identified within the PAGW OU.

The following section presents the outcome for each of these activities.

### **2.1.1 Surface Water**

Historically, surface water in Steel Creek has been routinely monitored since 2002 at seven (7) locations from P Area down to L Lake (Figure 3). Tritium has been consistently detected in surface water at concentrations above the MCL (20 pCi/mL) from P Area to L Lake. TCE on the other hand has been detected consistently above the MCL (5 ug/L) at only one station (SC-03) near P Area. No other downstream station has detected the presence of TCE.

As part of the 2013 SAP, surface water samples were collected from four (4) locations (e.g., SC-02, -03, -04, and -07) of the existing seven (7) locations to provide continuing monitoring of contaminants in surface water (Figure 3). As expected, tritium was exhibited at all the locations with a maximum concentration of 2,320 pCi/mL determined at SC-03. Tritium concentrations decrease further downstream, as shown at SC-07, before entering L Lake (Figure 4). Additionally, since cessation of area operations and subsequent closure of P Area, tritium concentrations have been declining. However, tritium concentrations consistently exceeded the MCL (20 pCi/mL) at locations SC-03, -04, and -07.

Samples collected from the four (4) locations indicate the presence of TCE at only one location (SC-03) and in exceedance of the MCL (5 ug/L). Lesser concentrations of cis-1,2-dichloroethylene (c12DCE) were also detected at this location. Figure 5 depicts TCE time-trends

at two (2) locations where TCE has been detected. SC-03 has historically exhibited elevated concentrations in exceedance of the MCL while at SC-02, TCE detections were variable with no detections in the last 12 years.

Table 1 provides a summary of the data collected at these four (4) locations since 2014. As with historical data, tritium and TCE are the primary contaminants detected in surface water above the MCLs.

### ***2.1.2 Depth-Discrete Groundwater Samples***

Depth-discrete groundwater sampling was utilized to investigate the extent of VOC groundwater contamination to the east of P Area along SRS Road F and to delineate the extent of tritium contamination in the GAU near the PRSBs (Figure 6).

#### *Eastern VOC Groundwater Investigation*

Five (5) cone penetrometer technology (CPT) locations along SRS Road F were utilized to collect up to ten (10) groundwater samples from each location to determine if VOC and tritium contaminants were present in the Upper and Lower Aquifer Zones. Previous characterization work conducted in 2010 defined low concentrations of VOC and tritium groundwater contamination east of P Area. The Core Team agreed to conduct additional sampling to ensure the extent of the VOC and tritium groundwater plumes was delineated.

Overall, 39 groundwater samples out of 46 attempts were collected from various depths from the five (5) CPT locations and analyzed for Target Compound List (TCL) VOCs and tritium. Table 2 provides a summary of PCE, TCE, and tritium results from each CPT location. Tritium was detected in 64% of the samples collected but none of the results exceeded the MCL. Tritium concentrations are within expected background concentrations associated with impact from rainfall and are not associated with impact from reactor operations. TCE was detected in 46% of the samples collected with only one (1) exceedance (7.68 ug/L) of the MCL in the Lower Aquifer Zone (LAZ) at sampling location PRGW090. Tetrachloroethylene (PCE) was detected in 51% of the samples collected with four (4) exceedances of the MCL. Of the four (4) MCL exceedances, three (3) of the samples were from the same location (PRGW087) in the Upper Aquifer Zone (UAZ). Previous groundwater investigation (2010) of PCE contamination in P

Area determined the plumes to be localized within the P Area facility with primary flow of the contamination to the west (Figure 19). Therefore, the elevated concentrations of PCE determined at this location are associated with no known source area and are not associated with existing PCE groundwater plumes in P Area.

Other VOCs detected include 1,2-dichloroethane, 1,2,4-trichlorobenzene, acetone, chloroform, c12DCE, toluene, and trichlorofluoromethane. Table 3 presents a data summary of detected results for the CPT data collected. Chloroform was the only other VOC that exceeded the regional screening level (RSL) in 44% of the samples collected. The presence of chloroform is a typical lab contaminant and is not associated with reactor operations. The detection of other VOCs such as 1,2,4-trichlorobenze, acetone, toluene, and trichlorofluoromethane are localized, of minimal concentrations which do not indicate a larger groundwater impact, and are not observed at other areas at the PAGW OU.

As a follow-on to the completion of the 2013 SAP CPTs, two (2) additional CPTs (PRGW110 and 111) were completed to delineate the extent of the PCE groundwater contamination determined at sampling location PRGW087 (Figure 6). The results from these two (2) locations determined the extent of the PCE groundwater contamination to be slightly above the MCL downgradient of sampling location PRGW087 (Table 2). PCE concentrations were detected in exceedance of the MCL in one (1) sample collected in the UAZ at sampling location PRGW110. In total, eleven (11) of 18 attempted groundwater samples were collected. Other VOCs detected include 1,2-dibromomethane, 1,2-dichloropropane, 1,2,4-trihchlorobenzene, 2-hexanone, acetone, chloroform, c12DCE, ethylbenzene, methyl ethyl ketone, methylcyclohexane, toluene, and trichloroethylene (Table 3). Chloroform, as exhibited at sampling locations PRGW087 through 091, also exceeded the RSL in 55% of the samples collected. The presence of chloroform is a typical lab contaminant and is not associated with P-reactor operations. Tritium was detected in 73% of the samples with none of the results exceeding the MCL. The other detected constituents are not indicative of groundwater impacts and are not routinely detected in the groundwater monitoring network.

Figure 7 depicts depth-discrete PCE concentrations from the seven (7) CPT locations along with the known extent of PCE groundwater contamination. Flow direction of the PCE groundwater

plume from sampling location PRGW087 is to the east towards an unnamed tributary that flows to PAR Pond. Based on available data, PCE contaminated groundwater determined from the seven (7) CPTs is not associated with the PCE groundwater plumes located within P Area. Therefore, the elevated concentrations of PCE to the east of P Area, as defined by the SAP investigation, is most likely associated with an unknown release from previous area operations. Figure 8 depicts depth-discrete TCE concentrations from the seven (7) CPT locations along with the known extent of TCE groundwater contamination. TCE was exhibited at the same location as with the higher PCE concentrations. Additionally, TCE concentrations were exhibited at location PRGW090 with one of the samples exceeding the MCL. Figure 9 depicts depth-discrete tritium concentrations from the seven (7) CPT locations along with the known extent of tritium groundwater contamination within P Area. Tritium was detected at a majority of the CPT sampling depths, however, there were no exceedances of the MCL. The concentrations observed are indicative of typical background concentrations associated with rainfall.

#### *Tritium in Gordon Aquifer Unit*

Prior to 2010, it was unknown if there was any impact to the GAU. In 2010, elevated tritium concentrations above the MCL were determined in the GAU near the PRSBs. However, the extent was not determined. To discern extent of impact of tritium in the GAU near the PRSBs, up to fifteen (15) groundwater samples were collected from three (3) direct push technology (DPT) locations using the IsoFlow™ method. This method was used in conjunction with Rotasonic drilling due to the depths samples were collected. Samples were analyzed for tritium, gross alpha, and nonvolatile beta.

Tritium concentrations were detected in one (1) of 15 samples collected (Table 4). There were no exceedances of the MCL for tritium. Therefore, the localized tritium plume, as defined during the 2010 investigation and further supported by ongoing groundwater monitoring of new wells installed at the location, is not widespread and local to an area near the PRSBs. Figure 10 depicts depth-discrete tritium concentrations in relation to the localized tritium plume.

Groundwater samples were also analyzed for gross alpha and nonvolatile beta. Concentrations of gross alpha and nonvolatile beta were detected in 14 and 13 of 15 samples collected, respectively. Gross alpha did exceed the MCL in eight (8) of 15 samples while nonvolatile beta

exceeded the MCL in two (2) of 15 samples (Table 4). Groundwater investigation conducted during 2010 also determined elevated gross alpha and nonvolatile beta concentrations throughout P Area in the GAU. The elevated concentrations are attributed to turbid samples collected because of the sampling methodology and acidification of the turbid samples. Naturally occurring radioactive material present in the samples accounts for the elevated concentrations and is not attributed to past reactor operations. Additionally, groundwater monitoring well data from the GAU does not indicate elevated concentrations of gross alpha and nonvolatile beta or exceed screening levels of 15 and 50 pCi/L, respectively. The observed groundwater monitoring well concentrations are significantly lower due to low turbidity values.

### 2.1.3 *MicroCED*

In 2010, a treatability study (Riha 2010) was conducted in a small area north of P-RBC and the TCE source area to evaluate the application of biostimulation and bioaugmentation to VOC groundwater contamination (Figure 11). A *dehalococcoides* microbe (MicroCED [**Micro-organism Chlorinated Ethene Destruction**]) found at the C-Area Twin Lakes on SRS was used as the bioaugmentation media. The major objective of the study was to evaluate the feasibility of enhanced reductive dechlorination using MicroCED in a highly aerobic VOC contaminated groundwater plume. Data collected from ongoing well monitoring activities during the study and shortly thereafter were mainly inconclusive (Amidon et al, 2013). However, there was limited information that suggested TCE concentrations were being reduced and that end-products (e.g., ethane/ethene) were being detected within the timeframe of the sampling. Subsequent sampling was suspended and no long-term data were collected to further evaluate the study. As part of the PAGW OU Core Team meeting in 2013, it was agreed that additional sampling should be conducted to determine what changes, if any, may have occurred since 2010.

Sixteen (16) wells (Figure 11) were sampled for wide range of constituents that included VOCs, total organic carbon, dissolved organic carbon, total inorganic carbon, manganese, nitrate, nitrite, sulfate, sulfide, chloride, tritium, total iron, phosphate, chemical oxygen demand, ferrous and ferric iron, permanent gases, and light hydrocarbons. A subset of the wells was also sampled for compound specific isotope and microbial analyses.

Overall, four (4) inorganics, four (4) metals, one (1) radionuclide, and 14 VOCs, of which seven (7) are light hydrocarbons, were detected. Table 5 summarizes the detected values from the study site and compares the results to the appropriate screening level. Of the detected constituents, seven (7) exceeded MCLs or RSLs. Total phosphate (as P) exceeded the RSL in seven (7) of 16 samples. Iron and manganese also exceeded the RSL in 11 and one (1) of 16 samples collected, respectively. The presence of these constituents is associated with the injected media (e.g., AquaBupH, emulsified oil substrate [EOS<sup>®</sup>], and microbe suspension media). Tritium was found to be in exceedance of the MCL in 17 of 20 samples. Overall, four (4) VOCs were determined to be in exceedance of the MCLs. Both TCE and PCE exceeded the MCL in 18 and three (3) of 23 samples collected, respectively. Degradation byproduct c12DCE was determined to exceed the MCL in ten (10) of 23 samples collected. The presence of this VOC is associated with reductive degradation of PCE and TCE. Dichloromethane (methylene chloride) exceeded the MCL in two (2) of 20 samples collected and is typically a laboratory contaminant.

Compound specific isotope analysis (CSIA) was conducted to further evaluate biodegradation activity. Many processes affecting contaminants in groundwater, such as dilution, sorption, and volatilization, have little or no effect on isotopic ratios. Processes such as biodegradation however, are associated with significant isotopic fractionation. This change in isotopes is measured by comparing the difference in the heavier carbon-13 (<sup>13</sup>C) versus the lighter carbon-12 (<sup>12</sup>C) bonds on a VOC molecule. During biodegradation, the lighter <sup>12</sup>C bond is broken leaving a higher isotopic fraction of <sup>13</sup>C present with the VOCs. The extent of biodegradation can be determined from the change in the ratio of the stable isotopes as indicated by the reported specific VOC-carbon data (e.g., TCE-Carbon).

CSIA samples were collected from three (3) wells (background [PMW001DL], injection [PMW005DL], and downgradient [P002U]) associated with the study area (Figure 11). An earlier report concluded that there was no indication of biodegradation occurring at the study area (Amidon et al 2013). However, this conclusion was based on the limited timeframe in which data were collected shortly after injection of the microbes. It was concluded that insufficient time may not have passed to observe measurable VOC degradation. It was

postulated, at the time, that the decrease in VOC concentrations could be attributed to partitioning of the VOCs into the EOS<sup>®</sup> and associated degradation.

Data collected in 2014 from these same three (3) wells were evaluated and summarized on Table 6. These wells were selected to provide a comparison of changes across the study area. Background well, PMW001DL, is located approximately 45.7 m (150 ft) downgradient from the TCE source area near P-RBC. VOC concentrations at this well have been decreasing since 2010 and is not associated with the MicroCED study area. The impact to VOC concentrations at this well is associated with in situ chemical oxidation (ISCO) of the TCE source area conducted in 2010 (SRNS 2012d). TCE concentrations have decreased approximately 89% since 2010 with no detection of c12DCE or vinyl chloride. CSIA data supports that no microbial activity was occurring as evident by the nearly stable TCE-carbon data. At injection well PMW005DL, which is approximately 53.3 m (175 ft) downgradient from the background well, TCE and c12DCE concentrations are no longer detected and only minor concentrations of vinyl chloride and ethylene are present. TCE-carbon data are variable and indicate some microbial biodegradation is occurring. Recent concentration data are below detection limits because of no detectable TCE. At the downgradient well, P002U, which is approximately 105 m (345 ft) downgradient from the injection well, VOC concentrations have been decreasing since 2010. TCE concentrations have decreased nearly 65% as well as with degradation byproduct c12DCE. Carbon data for both VOCs fluctuate with no apparent trend.

Even though the carbon data do not overwhelming indicate microbial biodegradation, other indicators suggest limited activity may be occurring. For instance, chloride concentrations in the injection wells have increased 10-times since the last sampling event (2010) along with marked increases in concentration in several nearby piezometers. The increase in chloride concentrations could indicate microbial biodegradation of TCE and by-products by removal of the chlorine from each subsequent VOC byproduct. Methane concentrations were also noted as being significantly higher than reported with the last sampling event, not only in the injection wells, as expected, but also in nearby piezometers. Methane is produced from the microbial consumption of organic carbon (e.g. EOS<sup>®</sup>) during anaerobic reductive dechlorination.

Microbial sampling was also conducted at 13 wells within the study area. Bio-Traps<sup>®</sup> were placed in the wells and left for approximately 60 days before retrieval and submittal to the laboratory for analysis. Tests were performed to determine *dehalococcoides* (DHC) cell density and to determine if the microbes present contained the genes capable of degrading TCE (TCE) to vinyl chloride (BVC and VCR) to ethene. Table 7 summarizes the findings of the microbe analysis. Overall, as expected, DHC were prevalent in the injection wells with excellent cell density ( $>10^4$ ) exhibited in injection wells PMW005DL and PMW006DL. Results from injection well PMW003DL were not as high as exhibited in the other injection wells. This was in part due to material present in the well that coated the Bio-Trap<sup>®</sup> which prevented adequate exposure to the groundwater (Figure 12). The material was determined to be a combination of the AquaBupH and EOS<sup>®</sup> that may not have been completely flushed out into the aquifer during follow-up injection of clean water. Only one piezometer (PMP004DL) exhibited low cell density of DHC. None of the other piezometers had microbial detections.

Since VOCs can be degraded by anaerobic reductive dechlorination and aerobic (co)metabolism, detailed microbial analysis (QuantArray<sup>®</sup>) was performed on a Bio-Trap<sup>®</sup> sample retrieved from piezometer PMP005DL, located outside of the injection field. The data obtained were to provide quantification of functional genes that may support both or either of these degradation processes. Microbial data discussed earlier identified the presence of microbes in support of reductive dechlorination, but the microbes are limited to within the injection field. Detailed analysis from PMP005DL determined that microbes were present with significant cell density ( $>10^5$ ) that contain function genes to conduct aerobic (co)metabolism of chlorinated ethenes (e.g., TCE) (Table 8).

#### **2.1.4 Groundwater Monitoring**

##### *Summary of UAZ Groundwater Data from Monitoring Wells*

Groundwater sampling was performed at defined UAZ groundwater monitoring wells to provide an overall review of constituents present in groundwater. Table 9 compares groundwater monitoring well data from the UAZ to appropriate MCLs, radionuclide preliminary remediation goals (PRGs), or RSLs. UAZ data included in this summary were collected from 2014 and 2016. A total of nine (9) metals, seven (5) radionuclides, and six (6) VOCs were determined to have

exceeded MCL or RSL screening levels. In addition, radiological indicators (gross alpha and nonvolatile beta) were detected above radiological trigger limits.

Metals detected in the UAZ above their screening criteria include aluminum, arsenic, chromium, cobalt, iron, lead, manganese, selenium, and uranium. Except for iron, the remaining metals were detected above their risk-based screening criteria in less than 5% of the samples. One well in particular (PAO001DU) consistently exhibited metals above the risk-based screening criteria. This is due to the location of the well within the ISCO treatment zone resulting in the release of naturally occurring metals from subsurface sediments into the groundwater. Iron was detected in 45 of 59 samples with 42 of those detections exceeding the RSL.

Radionuclides detected above their screening criteria include bismuth-214, iodine-129, strontium-90, tritium, and uranium-238. In addition, gross alpha and nonvolatile beta were detected above trigger levels (15 and 50 pCi/L). Tritium was the most widespread radionuclide present in groundwater and was detected in 100 of 104 samples with 40 of those exceeding the MCL. The maximum tritium concentration was 7,790 pCi/mL. Iodine-129 exceeded the MCL in approximately 3% (2 of 60) of the samples at two (2) wells during 2014. Subsequent sampling determined iodine-129 concentrations to be nondetects. Historical review of data prior to 2014, did not detect iodine-129 at these wells. The occurrence of this radionuclide is not indicative of groundwater contamination and is further supported by consistently low nonvolatile beta concentrations exhibited at these wells. Bismuth-214 and uranium-238 were found in exceedance of the MCLs primarily at one well, PAO001DU. As described earlier in the metals discussion, this well has been impacted by ISCO and the detection of radionuclides in groundwater are associated with naturally occurring radioactive material found in subsurface sediments that were released because of the chemical injections. Strontium-90 was detected in 12 of 62 samples with three (3) exceeding the MCL. The MCL exceedances were solely exhibited at well PSB 1A. This well has historically exhibited strontium-90 exceedances. The presence of this contaminant is associated with a process sewer line break near the PRSBs that originated from the P-RBC disassembly basin. The process sewer line and soil was remediated as part of the PRSBs remedial efforts (WSRC 2006a).

VOCs detected in the UAZ above their screening criteria include 1,4-dioxane, chloroform, c12DCE, dichloromethane (methylene chloride), PCE, and TCE. 1,4-Dioxane was detected in one (1) of 110 samples and that one (1) sample exceeded its RSL. Chloroform was detected in 20 of 63 samples with 16 samples exceeding the RSL. Dichloromethane (methylene chloride) was detected in 4 of 63 samples with only one (1) MCL exceedance. Both, chloroform and dichloromethane (methylene chloride) are common lab contaminants. cis-1,2,-Dichloroethylene was detected in 20 of 63 samples with six (6) samples exceeding the MCL. The presence of this VOC is associated with stalled reductive dechlorination of TCE and PCE. Primary VOC contaminants, PCE and TCE, were also detected in groundwater. PCE was detected in 34 of 100 samples with 15 samples exceeding the MCL and a maximum concentration of 260 ug/L. TCE was detected in 45 of 103 samples with 20 samples exceeding the MCL and a maximum concentration of 7,440 ug/L.

*Summary of LAZ Groundwater Data from Monitoring Wells*

Table 10 compares the monitoring well data from the LAZ to appropriate MCLs, PRGs, or RSLs. LAZ data included in this summary were collected from 2014 and 2016. A total of five (5) metals, one (1) radionuclide, and six (6) VOCs exceeded the appropriate screening level.

Metals detected in the LAZ above their screening criteria include cobalt, iron, lithium, lead, and manganese. Exceedances of cobalt, lithium, lead, and manganese above the risk-based screening criteria were in less than 6% of the samples. Iron exceeded the RSL in 27 of 49 samples collected.

Tritium is the only radionuclide that exceeded a risk-based screening level. Tritium was detected in 68 of 87 samples with 35 of the samples exceeding the MCL. The maximum tritium concentration was 16,400 pCi/mL located at the PRSBs.

VOCs detected in the LAZ above their screening criteria include bis(2-ethylhexyl) phthalate (DEHP), chloroform, c12DCE, dichloromethane (methylene chloride), PCE, and TCE. Bis(2-ethylhexyl) phthalate (DEHP) exceeded the MCL in three (3) of 37 samples collected. The concentration of the exceedances was low and was associated with newly installed wells. The detection of this VOC is typically associated with the production of polyvinyl chloride, of which

the wells are constructed. Chloroform exceeded the RSL in 30 of 61 samples while dichloromethane (methylene chloride) exceeded the MCL in one (1) of 61 samples. The presence of these VOCs in groundwater samples is typically associated with laboratory contamination. PCE was detected in 19 of 80 samples and only three (3) of the samples exceeded the MCL. The maximum PCE concentration was 10 ug/L. TCE, on the other hand, was more widespread and constitutes the main VOC groundwater contaminant. TCE was detected in 41 of 80 samples with 30 of the samples exceeding the MCL. The maximum concentration of TCE was 7,710 ug/L.

#### *Summary of GAU Groundwater Data from Monitoring Wells*

Table 11 compares the monitoring well data from the GAU to appropriate MCLs, PRGs, or RSLs. GAU data included in this summary were collected from 2014 and 2016. A total of one (1) metal, one (1) pesticide, one (1) radionuclide, and two (2) VOCs exceeded the appropriate screening level.

Iron was the only metal to exceed risk-based screening levels. Iron was detected in 11 of 12 samples with all 11 samples exceeding the RSL.

One pesticide, alpha-benzene hexachloride, was found to exceed the risk-based screening level. This pesticide was detected and exceeded the RSL in only one (1) of nine (9) samples.

Tritium was the only radionuclide to exceed the risk-based screening level. Tritium was detected in nine (9) of 20 samples with three (3) of the samples exceeding the MCL. The maximum tritium concentration was 5,860 pCi/mL. All the tritium exceedances were determined in one well, PSB002AA, located at the PRSBs. No other well in the GAU exhibited elevated concentrations of tritium.

Two (2) VOCs, chloroform and dichloromethane (methylene chloride), were found to exceed risk-based screening levels. Chloroform exceeded the RSL in two (2) of 13 samples while dichloromethane (methylene chloride) exceeded the MCL in one (1) of 13 samples. These VOCs are typical laboratory contaminants.

### *2.1.5 Areal Extent of Groundwater Plumes*

Shallow groundwater flow in the UAZ and LAZ mirror local area topography (Figures 13 and 14). P Area resides on a groundwater divide in which the shallow water-bearing units exhibit diverging flow paths to the east and west of the P-RBC. Principal groundwater contaminants include tritium, PCE, TCE, and c12DCE. Nearly all groundwater contamination is exhibited in the UAZ and LAZ; however, there is a localized area of impact (tritium only) in the GAU at the PRSBs. VOC groundwater plumes are present to the north of P-RBC and extend to the west towards Steel Creek and to the east towards PAR Pond. Additionally, a tritium plume from the PRSBs extends northwest towards Steel Creek. Groundwater plumes to the east are limited in areal extent and do not impact surface water. However, to the west, Steel Creek is impacted from discharges of tritium and VOCs (primarily TCE) contaminated groundwater exceeding their respective MCL.

A TCE groundwater plume in the UAZ extends from north of the P-RBC westward to Steel Creek in the vicinity of surface water sample location SC-02 (Figure 15). Impact to surface water in Steel Creek is primarily exhibited at surface water location SC-03. The highest exhibited TCE concentration of 7,440 ug/L is located near Steel Creek. In the LAZ, TCE concentrations between 1,000 and 10,000 µg/L comprise approximately half the area of the TCE plume, which also extends westward to Steel Creek (Figure 16). To the east, a portion of the LAZ TCE plume does not lie below the overlying UAZ TCE. The relative size of the LAZ TCE groundwater is much larger than the overlying UAZ TCE plume due to prominent vertical migration associated with slow horizontal groundwater flow in the UAZ within the groundwater divide area. The location and orientation of the c12DCE groundwater plumes coincide with the TCE groundwater plumes in each aquifer zone and is indicative of stalled degradation (Figures 17 and 18). No other degradation products (e.g., vinyl chloride or ethane) have been determined to be present on a consistent frequency.

Two distinct PCE groundwater plumes in the UAZ have been delineated at the PAGW OU (Figure 19). North of the P-RBC and to the east, the groundwater plumes are distinct from the TCE groundwater plumes. However, to the west of the P-RBC the PCE groundwater plumes are collocated with the TCE plumes and extends towards Steel Creek. In the LAZ, the PCE plume

lies north of the P-RBC but also extends towards Steel Creek (Figure 20). PCE concentrations are significantly less, by orders of magnitude in comparison to TCE.

Just to the west and outside of the P Area facility area, the groundwater plumes in the UAZ and LAZ become narrower versus spreading out laterally as normally expected with movement of groundwater plumes from the source. Data indicate the presence of a natural geologic feature (e.g., buried stream channel) which is controlling the primary movement of the plumes from P Area to Steel Creek. This area exhibits a higher permeability than the surrounding sediments making it a natural “funnel” for groundwater movement. As the groundwater plumes approach Steel Creek, the plumes elongate along the length of the creek with localized discharges to the upper reaches of Steel Creek.

The VOC groundwater plumes can be described in three (3) parts: 1) source area, 2) neck area, and 3) distal area (Figure 21). The source area represents most of the groundwater contamination and is centered north of P-RBC within the P Area facility area. The neck area represents the area where the VOC groundwater plumes are controlled by the buried geologic feature thus creating a narrowing of the groundwater plumes and is located to the west just outside of the P Area facility area. The distal area represents the area where the plumes are impacting surface water in Steel Creek and continue to spread along the length of Steel Creek.

Tritium groundwater contamination is more widespread and prevalent in groundwater due to multiple sources and releases associated with past facility operations. The primary source of tritium contamination to groundwater is associated with the PRSBs. Tritium plumes in the UAZ and LAZ extend westward and northwest from the PRSBs to Steel Creek, north of P-RBC, and with lesser tritium concentrations eastward towards PAR Pond (Figures 22 and 23). Most of the tritium contamination is northwest of the PRSBs. Tritium contaminated groundwater is currently discharging into Steel Creek above the MCL. The LAZ tritium plume mirrors the overlying UAZ groundwater plume.

A localized area of tritium groundwater contamination in the GAU at the PRSBs was determined in 2010 (Figure 24). After the investigation, groundwater monitoring wells were installed to provide long-term monitoring of the groundwater plume. As described in Section 2.1.2, the extent of tritium contamination appears to be localized with no indication of tritium detection in

nearby GAU wells or Isoflow™ sampling locations. The presence of the tritium contamination is associated with vertical migration of contaminated groundwater water into deeper water-bearing units.

### **3.0 PROJECT DATA QUALITY OBJECTIVES (DQOs)**

The Data Quality Objective (DQO) process is a series of logical steps that guides managers or staff to a plan for the resource-effective acquisition of environmental data. It is both flexible and iterative, and applies to both decision-making (e.g., compliance/non-compliance with a standard) and estimation (e.g., ascertaining the mean concentration level of a contaminant). The DQO process is used to establish performance and acceptance criteria, which serve as the basis for designing a plan for collecting data of sufficient quality and quantity to support the goals of the study. Use of the DQO process leads to efficient and effective expenditure of resources; consensus on the type, and quantity of data needed to meet the project goal; and the full documentation of actions taken during the development of the project. The DQO process is a series of seven planning steps based on the scientific method (Sections 3.1.1 to 3.1.7 below) and is detailed in USEPA Guidance (USEPA 2006).

## **3.1 PAGW OU**

### **3.1.1 *State the Problem***

PAGW OU has VOCs (PCE, TCE, and c12DCE) and tritium at levels exceeding the MCLs:

- TCE groundwater plume (>MCL) covers approximately 21 acres (ac) in the UAZ with the maximum concentration of 7,440 ug/L (4Q2016) at well PGW026DL, which is located near Steel Creek. The TCE groundwater plume in the LAZ covers approximately 21 ac with a maximum concentration of 7,710 ug/L (4Q2016) at well PGW025B. Near Steel Creek, maximum TCE concentration was 7,600 ug/L (4Q2016) at well PGW026C. The TCE contaminated groundwater discharges to Steel Creek.
- PCE groundwater plume (>MCL) covers approximately 17 ac in the UAZ with a maximum concentration of 67.3 ug/L (4Q2016) at well PAO003DU, which is located at the PCE source area within P Area. PCE contaminated groundwater has not been detected

in surface water samples collected from Steel Creek. PCE groundwater plume in the LAZ covers approximately 11 ac with a maximum concentration of 6.66 ug/L (4Q2016) at well PGW029C.

- C12DCE groundwater plume (>MCL) covers approximately six (6) ac in the UAZ with the maximum concentration of 4,740 ug/L (4Q2016) at well PMP002DL, which is located at the MicroCED study area. The c12DCE groundwater plume in the LAZ covers approximately 10 ac with a maximum concentration of 200 ug/L (4Q2016) at well PGW026C, which is located near Steel Creek.
- Tritium groundwater plume (>MCL) covers approximately 96 ac in the UAZ and discharges to Steel Creek with the maximum concentration of 6,860 pCi/mL (4Q2016) at well PSB011DL. The tritium groundwater plume in the LAZ covers approximately 78 ac with a maximum concentration of 13,400 pCi/mL (4Q2016) at well PSB002B, which is located at the PRSBs. The tritium groundwater plume in the GAU covers approximately <0.5 ac with a maximum concentration of 5,480 pCi/mL (4Q2016) at well PSB002AA, which is located at the PRSBs.

PAGW OU has TCE and tritium in surface water above the MCLs in Steel Creek:

- TCE concentration in surface water was 12.2 ug/L (4Q2016) at SC-03. No other surface water location exhibited TCE contamination. The historical maximum detected at SC-03 was 28.3 ug/L (2Q2013).
- Tritium concentration in surface water was 607 pCi/mL (4Q2016) at SC-03. Tritium concentrations were found in exceedance of the MCL at all surface water locations downstream of this location to L Lake.

### ***3.1.2 Identify the Goals of the Study***

The objective of this sampling activity is to collect groundwater, surface water, and soils data of sufficient quality that will be used to support the evaluation of remedial/removal alternatives for managing VOC groundwater plumes to Steel Creek. Because Steel Creek is impacted by contaminated groundwater, surface water in Steel Creek will be monitored in conjunction with

groundwater. Additionally, because VOCs and tritium are prevalent throughout the PAGW OU along with other localized areas impacted with constituents such as metals and radionuclides, long-term surface water and groundwater monitoring is being proposed.

The following assessments are to be performed during implementation of this SAP Addendum:

#### Steel Creek

1. Determine the extent of impact of VOC (primarily TCE) contaminated groundwater in Steel Creek;
2. Establish new surface water monitoring locations in Steel Creek;
3. Establish new shallow well points along Steel Creek to assess groundwater flow and impact to Steel Creek; and
4. Establish a long-term surface water monitoring plan.

#### Groundwater

1. Determine the extent of VOC groundwater contamination in and around the elbow portion of the distal area of the VOC groundwater plumes;
2. Determine the extent of VOC groundwater contamination at the distal end of the VOC groundwater plumes;
3. Collect lithologic and geotechnical information to support future remedial/removal actions;
4. Establish a new monitoring well cluster within the elbow portion of the distal area of the VOC groundwater plumes; and
5. Establish a long-term groundwater monitoring plan.

USEPA RSLs, radiological PRGs, and MCLs will be used as the basis for acceptance/performance criteria to determine if contaminated groundwater and surface water pose a risk to human health or the environment.

### 3.1.3 *Identify Information Inputs*

All historical data collected in support of the PAGW OU have been reviewed and summarized previously in RCRA Field Investigation/Remedial Investigation and SAP documents (SRNS 2013, WSRC 2005, WSRC 2006b). The data are of sufficient quality to make early removal decisions in regard to an overall treatment of the VOC and management of tritium groundwater plumes. However, there are specific data gaps related to the elbow portion of the distal area of the VOC groundwater plumes and in Steel Creek that need to be addressed to support those decisions. The following inputs are proposed to address those identified data gaps:

#### Steel Creek (Figure 25)

- Surface water samples are proposed for collection in Steel Creek. Four (4) existing and ten (10) new locations will be sampled. Of the ten (10) new locations, one (1) location will be located upstream of L Lake beyond the influence of the high lake level to ensure consistent monitoring of contaminants entering L Lake. Three (3) of the ten (10) locations are associated with streams from Carolina Bays that contribute to the flow in Steel Creek. Surface water samples will be collected from the Carolina Bays streams prior to the point of entry into Steel Creek to determine if there is any impact of VOC contaminated groundwater into those streams. All surface water samples will be collected as grab samples below the water surface. Stream flow rates will also be determined at each surface water location.
- Six (6) well clusters primarily consisting of two (2) wells each for a total of eleven (11) new shallow wells will be installed along Steel Creek. These wells are intended to assess the impact of VOC contaminated groundwater to Steel Creek. Each well cluster will have a well installed to a depth of 1.5 m (5 ft) and 3 m (10 ft) below land surface (bls). One well cluster, located near existing surface water location SC-02 will consist of only one (1) well to be installed to a depth of 3 m (10 ft). As there is a significant amount of riprap in this general location, it may not be possible to install a well near location SC-02. Wells will be installed via hand augering and the screens will be constructed of pre-pack material to minimize installation time and ensure proper placement of the wells. Each well will be sampled via a peristaltic pump.

Groundwater (Figure 26)

- Twenty-six (26) boring locations with four (4) contingent locations are proposed to delineate the extent of VOC groundwater contamination. Samples will be collected via the Savannah River National Laboratory (SRNL) headspace soil sampling method and analyzed by SRNL. Completion of the borings will be performed through the use of Rotasonic drilling. The four (4) contingent locations are proposed and will only be sampled if the extent of the VOC groundwater plumes are not defined.
  - Continuous core will be collected from each location and described in the field.
  - Gamma logs will be collected from seven (7) of 26 locations.
  - Up to 42 undisturbed samples (e.g., Shelby Tubes) are proposed to be collected from six (6) boring locations. The samples will be submitted to an offsite geotechnical laboratory.
- Eleven (11) CPT locations are proposed for the collection of electric logs using a piezocone. No environmental samples are proposed for collection.
- One (1) well cluster consisting of two (2) wells is proposed for installation. The well cluster will consist of a well installed in the UAZ and LAZ and constructed of standard well material. Samples will be collected via an installed dedicated bladder pump.

As part of monitoring at the PAGW OU, the following is proposed:

Surface Water (Figure 27)

- Collection of surface water data from the four (4) established sampling locations along Steel Creek. These data are needed to develop data trends and monitor impact to Steel Creek. In addition, new location SC-08 and any new surface water location(s) retained based on the results of the proposed SAP Addendum activities identified earlier will also be included.

#### Groundwater (Figures 28 through 31)

- Collection of groundwater data from existing and newly installed wells. These data are needed to develop data trends, monitor movement of groundwater plumes, and define the vertical and horizontal extents of contaminated groundwater.
- Collection of synchronous water levels.

USEPA RSL, MCL, and radiological PRG tables will be used as the basis to guide decisions and screening.

#### ***3.1.4 Sampling and Analysis Procedures***

SRS drilling and groundwater and surface water sampling will be performed through accepted procedures found in the SRS 3Q1 Manual, Section 9006, *Soil Boring Investigations* (SRNS 2014b), and Section 9015, *Sampling Groundwater Monitoring Wells, Tanks/Vessels (Sample Ports or Spigots), and Surface Water* (SRNS 2017b). Soil sampling for SRNL analysis will be performed through accepted procedures found in the SRNL L32 Manual, Procedure 2.0008, *Procedure for the Calibration and Analysis of Liquid, Solid, and Gas Samples using Gas Chromatography in Conjunction with a Headspace Autosampler* (SRNL 2014) and Work Instruction Procedures ERTS-WI-0018, *Collection of Soil Samples for Headspace Analysis by Gas Chromatography* (SRNL 2013). These procedures ensure representative sampling techniques are followed at all times in the field.

The subcontract laboratory shall be SCDHEC certified for the appropriate analytical methods as defined in this SAP Addendum. The analytical method and laboratory have been audited and approved by Department of Energy Consolidated Audit Program. The analyses shall be performed according to Quality Systems for Analytical Services requirements.

#### ***3.1.5 Define the Boundaries of the Study***

Sampling will be conducted in Steel Creek and in the distal end of the VOC groundwater plumes (Figures 25 and 26). These areas are within the defined extent of the PAGW OU (Figure 2).

### *3.1.6 Develop the Analytical Approach*

Surface water, groundwater, and quality assurance (QA)/quality control (QC) soil samples will be analyzed by laboratories that have passed the USDOE Consolidated Audit Program (DOECAP) (USDOE 2009) qualification audit and using USEPA SW-846 methods, or approved equivalents, which have been certified by SCDHEC. Radiological analyses are performance-based and evaluated by the USDOE Mixed Analyte Performance Evaluation Program. Laboratory-developed radionuclide methods are typically based on USEPA or USDOE methods.

Soil samples will be analyzed by SRNL using the established headspace method. This method has been used successfully on past SRS projects and has been well documented as providing excellent quality data. The data provided are considered screening level data and will be used to define the extent of groundwater contamination in the distal area of the VOC groundwater plumes. QA/QC samples will also be collected for data comparisons (see Section 5).

As part of the characterization of impact in Steel Creek, all surface water samples will be analyzed for a reduced list of TCL VOCs and tritium (Table 12). Newly installed groundwater monitoring wells will be sampled for a reduced list of TCL VOCs and tritium (Table 12). Soil samples will be collected at various depths with up to 50 samples collected per location and analyzed for VOCs by SRNL (Table 12).

For long-term monitoring, existing surface water locations will be analyzed for a reduced list of TCL VOCs and tritium (Table 13). Existing groundwater monitoring wells will be analyzed for varying constituents depending on their location to source units, location in groundwater plumes, and constituents that have been determined to exceed screening levels (e.g., MCLs, RSLs, etc..) based on data reviews that constitute a recurring impact to groundwater. Table 13 provides a complete list of the wells per aquifer and proposed list of analytes. Table 14 lists the wells proposed for synchronous water levels.

MCLs will be the primary point of comparison for groundwater and surface water constituent concentrations according to the protocols established in the Federal Facility Agreement (FFA 1993). In the absence of an MCL for a constituent, the USEPA tap water RSLs will be the primary point of comparison for an Action Level. The RSLs specify a 1E-06 or a Hazard

Quotient of 1 for human health risk-based threshold value for constituents. Surface water will also be compared to the SCDHEC Ambient Water Quality Criteria for the protection of aquatic life (chronic values). Additional details for the analytical approach are provided in Section 5 of this SAP Addendum.

Table 15 lists the contract-required detection limits (CRDLs) for each analyte included as part of the comprehensive TCL/TAL and compares the limits to the appropriate MCL and RSL. A subset of these analytes are identified on Tables 12 and 13 in support of the SAP Addendum. The contract-required minimum detected activity, radiological MCLs, and radiological PRGs are included in Table 16.

### ***3.1.7 Specify Performance or Acceptance Criteria***

According to USEPA guidance (USEPA 2006), “The USEPA has developed the Data Quality Objectives (DQO) Process as the Agency’s recommended planning process when environmental data are used to select between two or more alternatives or to derive an estimate of contamination. The DQO process is a seven-step method designed to ensure that the appropriate type, quantity, and quality of environmental data are collected for the intended application. SW-846 methods are analytical procedures for sample analyses and are presented in the Analytical Plan, Section 5, Analytical Plan. Section 4 presents DQO worksheets developed for each subunit and/or media and specifies the quantity, type, and quality, of data as well as ensuring representative data is collected for each sampling population (Table 17).

Total study error is the additive impact of two main sources of error: 1) sampling error and 2) measurement error, with sampling error being responsible for the vast majority of the total error. “As much as 90% or more of the uncertainty in environmental data sets is due to sampling variability as a direct consequence of the heterogeneity of the environmental matrices” (Crumbling 2001). The method best suited to reduce sampling error is to gather representative samples (Crumbling 2001).

It is incorrect to assume that randomly collected, non-representative samples, plus perfect analytical chemistry will always lead risk managers to correct risk management decisions. To avoid incorrect risk management decisions, it is more important to develop Decision Quality

Data (DQD). DQD is defined as “Data of known quality that can logically be demonstrated to be effective for making the specified decision because both the sampling and analytical uncertainties are managed to the degree necessary to meet clearly defined and stated data needs (Crumbling 2001). Therefore, it is more important for the risk managers to use decision quality data, emphasizing representative sampling with a specified percentage of definitive data, in order to make a correct decision and should not be confused with emphasizing analytical data quality which does not necessarily equate to a correct risk management decision.

Because the SRS possesses significant process and historical knowledge and in most instances has preliminary or survey data results for the majority of its waste units, this sampling plan will largely control sampling error (the cause of greatest total error) and set tolerable limits on decision errors by gathering data by judgmental, judgmental-stratified, and systematic sampling designs based on process knowledge, existing data, historical information/data, survey data, and institutional knowledge to generate decision quality data. This is the method SRS will use to control decision errors, since sample collection will be focused in areas of known contamination rather than using a sampling design intended to randomly search for contamination. Judgmental sampling provides a very conservative and certain method for collecting data with a high likelihood for detecting worst-case contaminant concentrations while reducing total study error.

The DQOs for the PAGW OU represent the type and level of analytical quality needed for characterization at this unit and can be found in Sections 4 and 5 of this SAP.

### ***3.1.8 Develop the Plan for Obtaining the Data (Project Quality Objectives)***

The investigation approach uses a layered scheme that considers the results of the previous groundwater and surface water sampling data. Activities under this SAP Addendum will include:

- Additional characterization of impact to surface water in Steel Creek;
- Shallow groundwater monitoring well installation along Steel Creek;
- Additional characterization of the UAZ and LAZ to define the extent of VOC groundwater contamination in the distal area of the VOC groundwater plumes to Steel

Creek. Majority of the characterization will be performed in the elbow portion of the distal area of the VOC groundwater plumes;

- Groundwater monitoring well installation in the UAZ and LAZ at one location in the elbow;
- Collection of geologic core descriptions;
- Collection of undisturbed samples (e.g., Shelby Tubes);
- Collection of CPT piezocone logs;
- Continued groundwater monitoring of existing and newly installed wells; and
- Continued surface water monitoring of existing and selected newly established locations.

Implementation of the SAP Addendum will be guided by the following accepted SRS protocols/procedures:

- Samples will be analyzed using laboratories certified for applicable parameters in accordance with SCDHEC R.61-81, *State Environmental Laboratory Certification Program*.
- Wells will be installed in accordance with SCDHEC *Well Standards and Regulations* and with SRS site wide procedures found in Manual 3Q1 *Hydrogeologic Data Collection Procedures and Specifications* (SRNS 2010).
- Samples will be collected, packed, and shipped in accordance with the site wide procedures found in Manual 3Q1 *Hydrogeologic Data Collection Procedures and Specifications* (SRNS 2010).
  - Soil samples will be collected and analyzed at SRNL per procedures found in L32 Manual *Procedure for the Calibration and Analysis of Liquid, Solid, and Gas Samples using Gas Chromatography in Conjunction with a Headspace Autosampler* (SRNL 2014) and *Collection of Soil Samples for Headspace Analysis by Gas Chromatography* (SRNL 2013).
- Data management will be performed in accordance with the *Environmental Restoration Data Management System (ERDMS) Data Management Plan* (Q-DMP-B-00001,

Revision 3, June 2006 or most current version). ERDMS will be used for database management including mobilization, field measurements, and analytical data.

- The Quality Assurance Program is described in *Area Completion Projects Programmatic Quality Assurance Project Plan for Environmental Data Collection and Management*, ERD-AG-2005-00001, Revision 5 (SRNS 2012c).

To support long-term monitoring of plume migration, impact to surface water in Steel Creek, and development of concentration trends, existing surface water and groundwater monitoring wells will be sampled annually. Any new wells and appropriate surface water locations completed as an outcome of the SAP Addendum will be added to the list.

Project quality objectives (PQOs) are qualitative and quantitative statements derived from the DQO process. PQOs are used as the basis for establishing the quality and the quantity of data needed to support decisions. The PQOs for the PAGW OU include the following:

1. Laboratory data will meet the analytical and CRDLs listed in Tables 18 through 21.
2. Samples will follow preservative guidelines as listed in Table 22.
3. All (i.e., 100%) of the offsite laboratory analytical data that meets QA requirements will be verified and have supplemental validation to meet more stringent verified and validated (VV) data criteria (Table 23). All reasonable efforts will be made to ensure sample preparation and collection are adequate so that sampling errors are kept to a minimum. If sampling preparation errors are identified, then replacement samples will need to be collected and resubmitted for laboratory analysis if DQOs are not met.
4. At least one split sample will be collected from surface water and groundwater monitoring wells for data quality comparability.
5. Split sample result will have a relative percent difference (RPD) = 100% for surface water samples.
6. At least one surface water and groundwater monitoring well sample will be field duplicate sample for the comparability data quality indicator.
7. 95% of samples sent to laboratory have useable (non-rejected) results for completeness data quality indicator.

8. 75% of planned samples are collected and their data are useable for completeness data quality indicator.

#### **4.0 SAMPLING DESIGN AND RATIONALE**

Implementation of the SAP Addendum to obtain decision quality data for the PAGW OU is documented in the remaining sections of this sampling and analysis plan. The following section describes how the plan is implemented to collect the physical data to meet the criteria developed during the DQO process.

##### **4.1 Steel Creek Investigation**

Surface water in Steel Creek is impacted from discharges of tritium and VOC (primarily TCE) contaminated groundwater. Historical monitoring has shown tritium to be present in exceedance of the MCL along the entire stretch of Steel Creek to L Lake. TCE on the other hand, is only exhibited above the MCL at one surface water location, SC-03, near the headwaters of Steel Creek. TCE is not detected at the next sampling location (SC-04) which is approximately 427 m (1,400 ft) downstream from SC-03.

To determine the overall impact of VOC contaminated groundwater in surface water between surface water locations SC-03 and SC-04, additional sampling locations are needed. To support this evaluation, seven (7) new locations will be located within Steel Creek (Figure 25). In addition, there are two (2) Carolina Bays that currently discharge surface water and add to the overall flow in Steel Creek. The resultant streams have incised into subsurface sediments as surface water reaches Steel Creek. To determine if VOC contaminated groundwater is currently impacting this surface water, surface water samples will be collected from three (3) locations (Figure 25).

All ten (10) proposed surface water locations in addition to four (4) existing surface water locations (SC-02, -03, -04, and -07) will be sampled for a reduced list of TCL VOCs and tritium as identified in Table 12. In addition, flow rates will be determined at each location.

Due to the topography of the area surrounding Steel Creek, there are no groundwater monitoring wells near the stream to evaluate the impact of VOC and tritium contaminated groundwater to

surface water. Eleven (11) shallow groundwater wells will be installed at six (6) two-well clusters with one (1) well cluster having a single well (Figure 25). Each well cluster will consist of a well installed to 1.5 m (5 ft) and 3 m (10 ft) bls. The single well cluster will have a 3 m (10 ft) shallow well installed. However, due to the abundance of riprap present in the area, it may not be possible to install this well. The purpose of these wells is to provide long-term trend data on groundwater contaminant discharges to Steel Creek. Each well will be sampled annually for a reduced list of TCL VOCs and tritium as identified on Table 13.

#### **4.2 Groundwater Investigation**

The extent of VOC contaminated groundwater in the UAZ and LAZ in the distal area of the VOC groundwater plumes is needed to aid in the decision-making for potential response action(s) in the future. The primary focus will be located in the elbow portion of the distal area of the VOC groundwater plumes. However, some work will be performed to define the furthestmost western extent of the VOC groundwater plumes. Portions of the groundwater plumes are currently impacting surface water in Steel Creek.

The extent of VOC groundwater plumes in the distal area is defined by limited groundwater monitoring well and previous CPT data. The overall extent is not fully understood. Because the VOC groundwater plumes are impacting surface water and based on existing data, the elbow portion is being considered for possible removal action (SRNS 2017a). However, data uncertainties exist and must be addressed before an informed decision can be made in this portion of the plume.

Characterization of the distal area of the VOC groundwater plumes, with primary focus in the elbow portion, will consist of performing headspace sampling on core collected from 21 m (70 ft) to 61 m (200 ft) bls or until the Gordon Confining Unit (Green Clay) is encountered at 26 borehole locations (Figure 26). Up to 50 samples will be collected and submitted to SRNL for VOC analysis as identified on Table 12. Four (4) contingent locations are planned in the event the extent of the VOC groundwater plumes is not defined.

To provide detailed lithologic data in the elbow portion, each core will be described. Seven (7) of the 26 boring locations will be geophysically logged. Six (6) locations will have up to 42

undisturbed samples (e.g., Shelby Tubes) collected and submitted to an offsite laboratory for various geotechnical analysis. To provide greater geotechnical information on subsurface sediments, eleven (11) CPTs will collect piezocone data (Figure 26).

Based on the results of the headspace data, two (2) wells, one in the UAZ and LAZ, will be installed for long-term monitoring (Figure 26) in the elbow portion. These wells will be sampled annually for specific VOCs and tritium as identified on Table 13.

### **4.3 Surface Water and Groundwater Sampling**

Long-term monitoring of surface water and groundwater at the PAGW OU is needed to establish current conditions, develop data trends, monitor movement of identified plumes, and to define vertical and horizontal extent of contamination.

#### **4.3.1 Surface Water**

Surface water in Steel Creek is currently impacted by discharges of VOC and tritium contaminated groundwater. Historical data and previous data evaluations indicate that tritium and VOCs (primarily TCE) are the principal constituents routinely detected in surface water and in exceedance of the MCLs. Unlike tritium, which is detected along the entire stretch of Steel Creek, TCE is only exhibited in a small area near the headwaters at sampling location SC-03.

Routine surface water sampling will be conducted annually and concurrently with monitoring well sampling. Samples will be analyzed for tritium and a reduced TCL VOC list as identified on Table 13. Figure 27 depicts the location of the four (4) locations (SC-02, -03, -04, and -07) that will be continually monitored. Any surface water location retained as part of the surface water characterization, described earlier in Section 4.1, will be added to the monitoring program.

#### **4.3.2 Groundwater**

Groundwater samples have been collected from monitoring wells at P Area since 1979. Historical groundwater data were screened against MCLs, PRGs, and RSLs as part of the 2013 SAP (SRNS 2013). Multiple hazardous contaminants that exceeded their specific risk-based screening values were determined and proposed for sampling as part of the 2013 SAP. Section

2.1.4 of this SAP Addendum evaluated those data against appropriate screening levels (e.g., MCLs, PRGs, RSLs) to determine hazardous constituents for routine groundwater monitoring.

Select groundwater monitoring wells installed in the UAZ, LAZ, and GAU are planned for routine groundwater monitoring. The wells selected and associated analytes were determined from the data evaluations, relative location to source areas, and location within groundwater plumes. A subset of the wells selected may be part of other OU monitoring programs (e.g., P-Reactor Building Complex Effectiveness Monitoring Plan). The use of these wells in the PAGW OU monitoring program will not preclude them from their initial purpose but will only aid in the overall monitoring of groundwater at the PAGW OU. The complete list of wells and associated analytes for monitoring are provided on Table 13. Figures 28 through 30 depict the location of the wells for each of the aquifers. The selected groundwater monitoring wells will be sampled annually in conjunction with Steel Creek surface water and shallow groundwater well sampling. Semi-annual synchronous water level measurements will also be collected (Figure 31 and Table 13).

New groundwater monitoring wells proposed in this SAP Addendum will be added to the overall monitoring program. Any new wells added in the future for the PAGW OU, specifically for monitoring, will also be added. However, any wells installed as part of a remedial/removal action will not be added to the overall program until at some time agreed upon by the Core Team. This is because monitoring and reporting requirements for a remedial/removal action will be more frequent and focused than with the long-term monitoring program.

A groundwater report will be prepared and submitted biennially (every two years) that provides at a minimum current location of the groundwater plumes, time-trends for key constituents (e.g., tritium and TCE), hydrographs, data summary tables, and review of impact to Steel Creek. Any specific remedial/removal action(s) that is undertaken at the PAGW OU, will be addressed for that specific remedial/removal action effectiveness monitoring plan until such time has passed that the monitoring requirements can be incorporated into the overall PAGW OU program. The groundwater report will be submitted six (6) months following the end of the quarter in which sampling was completed. In between the time when a groundwater report will be issued, data summary tables for that reporting year will only be provided.

## **5.0 ANALYTICAL PLAN**

This chapter describes the data quality levels for the data being collected under this SAP Addendum. All data will follow the *Area Completion Projects Quality Assurance Project Plan for Environmental Data Collection and Management* (SRNS 2012c) (QAPP). Both groundwater and surface water data will be collected.

### **5.1 Data Quality Levels**

The data quality level for permanent groundwater monitoring well and seepage stations will be Verified and Validated (V&V) data level (SRNS 2012a and SRNS 2012b). The data quality level for headspace samples collected from the boreholes will be Screening Level Data (SD). However, split samples will be V&V data level. Groundwater and surface water samples may be analyzed using USEPA approved methods for constituent analysis or screening methods to determine field results (i.e., dissolved oxygen, pH, turbidity, etc.), except for the SRNL VOC samples.

Data will be qualified by the SRNS auto-validation software module for the following aspects of USEPA Functional Guideline Criteria to achieve the V&V quality level: Quantitation Limits, surrogate or tracer recoveries, blanks (method/lab/prep, trip, field, rinsate), lab control sample recoveries, matrix spike recoveries/duplicates, lab replicates, field duplicates, cooler temperatures, chemical preservation, holding times. The laboratory will provide an electronic data deliverable and case narrative, and respond to inquiries about the analytical data package for SRNS to run the auto-validation software. All fatal errors, data errors, and warnings will be fixed during the verification process, and the data set will be reviewed for completeness. All (100%) of the off-site laboratory analyses for groundwater and surface water samples will be both verified and validated (V&V). In addition, 10% of the V&V samples will have supplemental validation to meet more stringent definitive data criteria.

Supplemental data validation includes additional manual review of laboratory records for calibration, identification, and quantitation against the USEPA Functional Guidelines criteria, as outlined in ER-SOP-033 (SRNS 2015). These records include initial and continuing calibration data, internal standard data, sample preparation data, run logs, sample spectra, and quantitation reports. Based on the supplemental validation, this portion of the data set will be considered

definitive, and will support the use of the entire data set (screening level) for decision making (remedy selection).

## 5.2 Field Analytical Sampling Quality Assurance/Quality Control

All field analytical sampling QA/QC will be maintained using QA/QC samples consisting of field duplicates, rinsate/equipment blanks, field blanks, trip blanks, and split samples. Field personnel will ensure that QA/QC samples are collected at the correct frequency and methodology as described below.

1. Field Duplicate (co-located) Samples: Two or more independent samples collected from side-by-side locations at the same point in time and space so as to be considered identical. These separate samples are intended to represent the same population and are carried through all steps of the sampling and analytical procedures in an identical manner. These samples are used to assess precision of the total method, including sampling, analysis, and site heterogeneity. Field duplicate samples are planned at a minimum rate of 5% according to ER-SOP-043 (SRNS 2014a), or typically one per 20 samples, and are analyzed for the same parameters as the associated samples.
2. Equipment Blanks: A sample of water free of measurable contaminants poured over or through decontaminated field sampling equipment that is considered ready to collect or process an additional sample. The purpose of this blank is to assess the adequacy of the decontamination process. This sample is also called a rinse blank or a rinsate blank. Equipment blanks are typically planned at a rate of one blank per 40 samples. However, during headspace sampling, it is proposed that one equipment blank be collected per borehole. No rinsate blanks will be collected during surface water and groundwater sampling since surface water samples will be collected via the grab method and all wells have dedicated equipment.
3. Field Blanks: A blank used to provide information about contaminants that may be introduced during sample collection, storage, and transport; also a clean sample exposed to sampling conditions, transported to the laboratory, and treated as an environmental sample. Field blanks are optional and may be collected when contamination from external environmental sources is anticipated by the project team. Typically, field blanks, when used,

are planned at a rate of one blank per 40 samples. However, during headspace sampling, it is proposed that one field blank be collected per borehole. No field blanks will be collected during surface water and groundwater sampling.

4. Trip Blanks: A clean sample of water free of measurable contaminants that is taken to the sampling site and transported to the laboratory for analysis without having been exposed to sampling procedures. Trip blanks are used to monitor contamination of samples by VOCs during shipping and handling. A blank consists of distilled-deionized water provided by the laboratory to be placed in every cooler with VOC samples, typically at the rate of one trip blank per cooler.
5. Split Samples: Two or more representative portions from a sample in the field, analyzed by at least two different laboratories and/or methods. Prior to splitting, a sample is mixed (except for volatiles, oil and grease, or when otherwise determined) to minimize sample heterogeneity. These are quality control samples used to assess precision, variability, and data comparability between laboratories. Split samples are planned at a rate of one per 20 samples and are analyzed for the same parameters as the associated samples.

### **5.3 Sample Matrix Table**

Table 12 provides a sampling matrix table for characterization activities that includes the following information:

- Sample count,
- Station identifier,
- Field QC samples,
- Sample collection method,
- Media,
- Analytical suites, and
- Coordinates - proposed coordinates may change, as necessary, due to field conditions.

Table 13 provides a summary matrix table for long-term surface water and groundwater monitoring.

#### **5.4 Sample Location Map**

Maps showing the proposed surface water and groundwater characterization sample locations are shown on Figures 25 and 26. Long-term surface water and groundwater monitoring locations are shown on Figures 28 through 31.

### **6.0 FIELD IMPLEMENTATION**

The following sections outline the field implementation procedures and processes for the PAGW OU characterization and monitoring efforts. Additional implementing documents, such as the environmental checklist, automated hazard analysis, safe work permits, radiological work instructions, site-specific Health and Safety Plan, and investigation-derived waste (IDW) management plans, are internal to SRS and detail day-to-day sampling operations and safety requirements.

#### **6.1 List of Sampling/Collection Equipment**

The section lists types of sampling/collection equipment needed to execute the field implementation plan. Examples include but are not limited to:

- Field logbook;
- Organic vapor analyzer meter;
- Personal protective equipment;
- Safety equipment (fire extinguishers, eye wash stations, first aid kits, noise meter, etc.);
- Surface water sampling equipment;
- Drilling equipment;
- Portable/hand-held pH, turbidity, conductivity, and temperature meters;
- Global Positioning System unit;
- KIJ-5 radio, cell phone, and/or pager;
- Equipment decontamination supplies;
- Sample bottles with preservatives; and

- Coolers and frozen blue ice or equivalent for packing samples in the field.

Equipment needs will vary from day to day based on sampling requirements and field conditions. Specific needs will be address at plan-of-the-day meetings by the Technical Oversight, and safety personnel.

## **6.2 Investigation-Derived Waste**

Sampling activities associated with this SAP may generate aqueous and non-aqueous IDW. Aqueous IDW may consist of drilling fluids, decontamination rinses, well purge water, and sample residues. Non-aqueous waste IDW may consist of personal protection equipment and excess soil from drilling activities. IDW will be managed according to the site-specific IDW management plan developed for the project.

## 7.0 REFERENCES

Amidon, M., B. Riha, K. Hyde, and R. Walker, 2012. *Year One Summary Report Edible Oil and MicroCED Deployment for Enhanced Attenuation of cVOCs at P Area, Savannah River Site (U)*, SRNL-RP-2012-00792, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

Crumbling, D.M, C. Groenjes, B. Lesnik, K. Lynch, J. Shockley, J. Van Ee, R. Howe, L. Keith, and J. McKenna, 2001. "Managing Uncertainty in Environmental Decisions," *Environmental Science & Technology*, American Chemical Society, October 1, pages 405A-409A

FFA (Federal Facility Agreement), 1993. *Federal Facility Agreement for the Savannah River Site*, Administrative Docket Number 89-05-FF (Effective Date: August 16, 1993)

Hayes, D.W., 1982. *Anticipated Transport of Cs-137 from Steel Creek Following L-Area Restart*, DPST-82-212, E.I. DuPont de Nemours and Company, Savannah River Laboratory, Aiken, SC

Riha, B.D., 2010. *Treatability Study Work Plan for Edible Oil and MicroCED Deployment for Enhanced cVOC Attenuation for P Area, Savannah River Site*, SRNL-RP-2009-01054, Revision 1, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SCDHEC (South Carolina Department of Health and Environmental Control), 2002. R.61-71, *Well Standards and Regulations* (April 26)

SCDHEC, 2008. *Water Classifications and Standards*, Bureau of Water, R.61-68, Columbia, SC (April)

SRNL, 2013. *Collection of Soil Samples for Headspace Analysis by Gas Chromatography*, SRNL Environmental Restoration Technology Work Instructions Manual, WI-ERTS-0018, Revision 2, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNL, 2014. *Procedure for the Calibration and Analysis of Liquid, Solid, and Gas Samples Using Gas Chromatography in Conjunction with a Headspace Autosampler*, SRNL Environmental Stewardship Procedure Manual L32, Procedure 2.0008, Revision 0, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2010. *Hydrogeologic Data Collection Procedures and Specifications, Section 9000*, Manual 3Q1, latest revisions, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2012a. *ACP Statistical Summary Report (U)*, Area Completion Projects Administrative Procedures Manual C1, ER-AP-304, Revision 2, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2012b. *Analytical Data Validation Report (U)*, Area Completion Projects Administrative Procedures Manual C1, ER-AP-303, Revision 4, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2012c. *Area Completion Projects Programmatic Quality Assurance Project Plan for Environmental Data Collection and Management*, ERD-AG-2005-00001, Revision 5, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2012d. *Post-Construction Report (PCR) for the P-Area Operable Unit (U)*, SRNS-RP-2011-01582, Revision 1, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2013. *Sampling and Analysis Plan for the P-Area Groundwater Operable Unit (U)*, SRNS-RP-2011-01284, Revision 1, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2014a. *Obtaining and Managing Environmental Data for Area Completion Projects (U)*, Area Completion Procedure Manual C3, ER-SOP-043, Revision 4, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2014b. *Soil Boring Investigations (U)*, Area Completion Procedure Manual 3Q1, Procedure 9006, Revision 3, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2015. *Analytical Data Qualification (U)*, Area Completion Projects Geochemical Monitoring Procedures Manual C3, Volume X, ER-AP-033, Revision 6, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2017a. *Removal Site Evaluation Report / Engineering Evaluation / Cost Analysis for Trichloroethylene Plumes Discharging to Steel Creek in P-Area Groundwater Operable Unit (U)*, SRNS-RP-2017-00372, Revision 0, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

SRNS, 2017b. *Sampling Groundwater Monitoring Wells, Tanks/Vessels (Sample Ports or Spigots) and Surface Water (U)*, Area Completion Procedure Manual 3Q1, Procedure 9015, Revision 7, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

USDOE (US Department of Energy), 2009. *Department of Energy Consolidated Audit Program (DOECAP) Policies and Practices*, Procedure AD-1, Revision 2

USEPA (United States Environmental Protection Agency), Various Updates. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition Basic Manual with Updates

USEPA, 2002. *Guidance on Choosing a Sampling Design for Environmental Data Collection (for Use in Developing a Quality Assurance Project Plan)*, EPA QA/G-5S, EPA/240/R-02/005 (December)

USEPA, 2006. *Guidance on Systematic Planning Using the Data Quality Objectives Process*, EPA QA/G-4, EPA/240/B-06/001

USEPA, 2008. *National Functional Guidelines for Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, Washington, DC

USEPA, 2017a. *National Primary Drinking Water Regulations*, Office of Groundwater and Drinking Water, <http://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulation-table>

USEPA, 2017b. *USEPA Preliminary Remediation Goals for Radionuclides*, <http://epa-prgs.ornl.gov/radionuclides/>

USEPA, 2017c. *USEPA Regional Screening Levels*, <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-november-2017>

USEPA, USDOD, and USDOE (United States Environmental Protection Agency, United States Department of Defense, and United States Department of Energy) 2005. *Uniform Federal Policy for Quality Assurance Project Plans*, EPA:-505-B-04-900A, Version 1, Final

WSRC (Westinghouse Savannah River Company), 2002. *Sampling and Analysis Plan for Groundwater Characterization of the P-Reactor Groundwater Operable Unit (U)*, WSRC-RP-2002-4122, Revision 1, Westinghouse Savannah River Company, Savannah River Site, Aiken, SC

WSRC, 2005. *Remedial Investigation (RI) Work Plan for the P-Area Reactor Groundwater Operable Unit (U)*, WSRC-RP-2004-4137, Revision 1.1 Redline, Westinghouse Savannah River Company, Savannah River Site, Aiken, SC

WSRC (Washington Savannah River Company), 2006a. *Post-Construction Report (PCR)/Final Remediation Report (FRR) for the P-Reactor Seepage Basins (U)*, WSRC-RP-2005-4088, Revision 1, Washington Savannah River Company, Savannah River Site, Aiken, SC

WSRC, 2006b. *Remedial Investigation (RI) Work Plan for P-Area Operable Unit (U)*, WSRC-RP-2005-4081, Revision 1.1, Washington Savannah River Company, Savannah River Site, Aiken, SC

WSRC, 2007. *Manual IQ, Quality Assurance (U)*, latest revisions, Savannah River Nuclear Solutions, LLC, Savannah River Site, Aiken, SC

WSRC, 2008. *RCRA Facility Investigation/Remedial Investigation (RFI/RI) Report with Baseline Risk Assessment and Corrective Measures Study/Feasibility Study (CMS/FS) for the P-Area Operable Unit (U)*, WSRC-RP-2007-4032, Revision 1.2, Washington Savannah River Company, Savannah River Site, Aiken, SC

**FIGURES**

**This page intentionally left blank.**

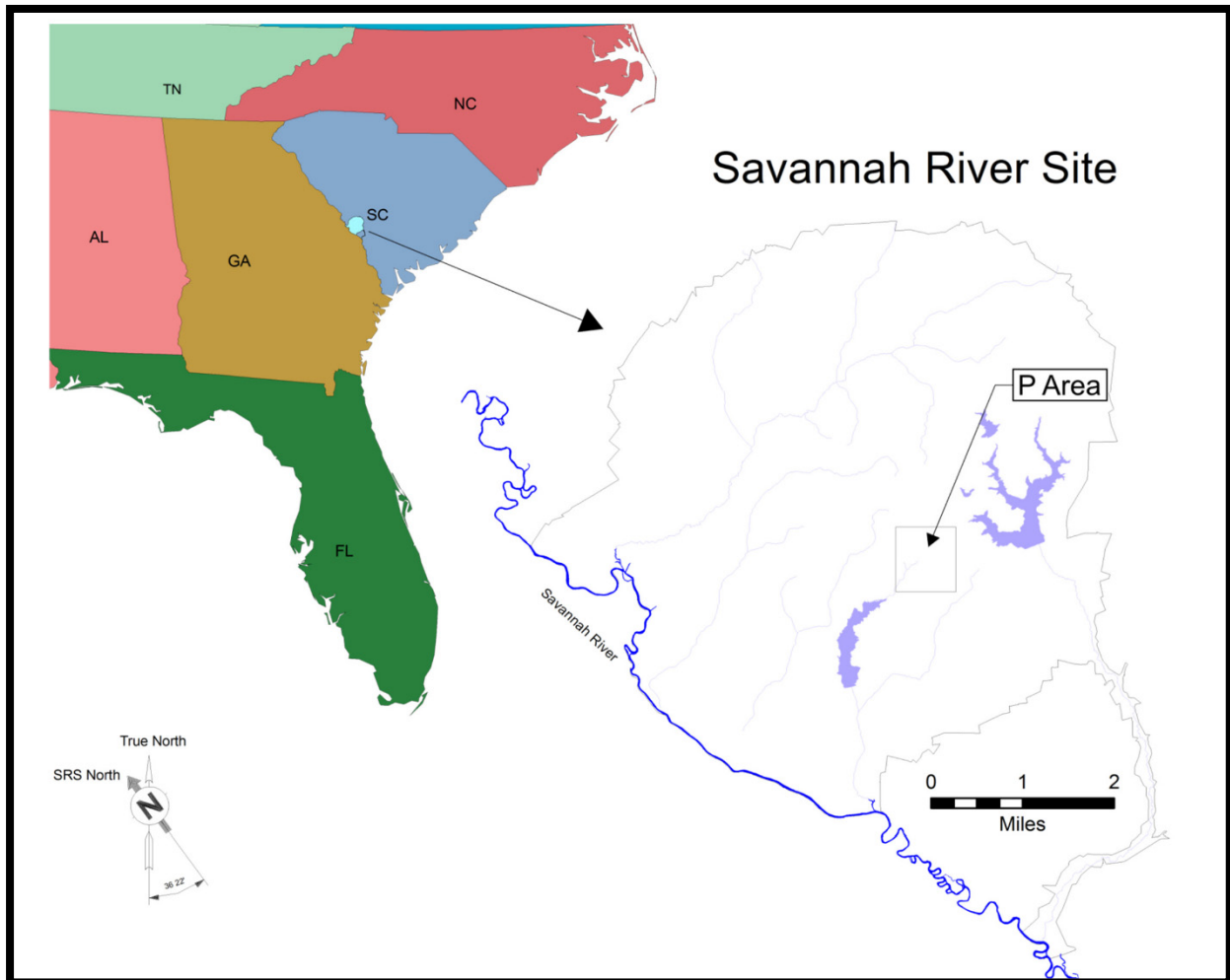


Figure 1. Location of P Area at the Savannah River Site

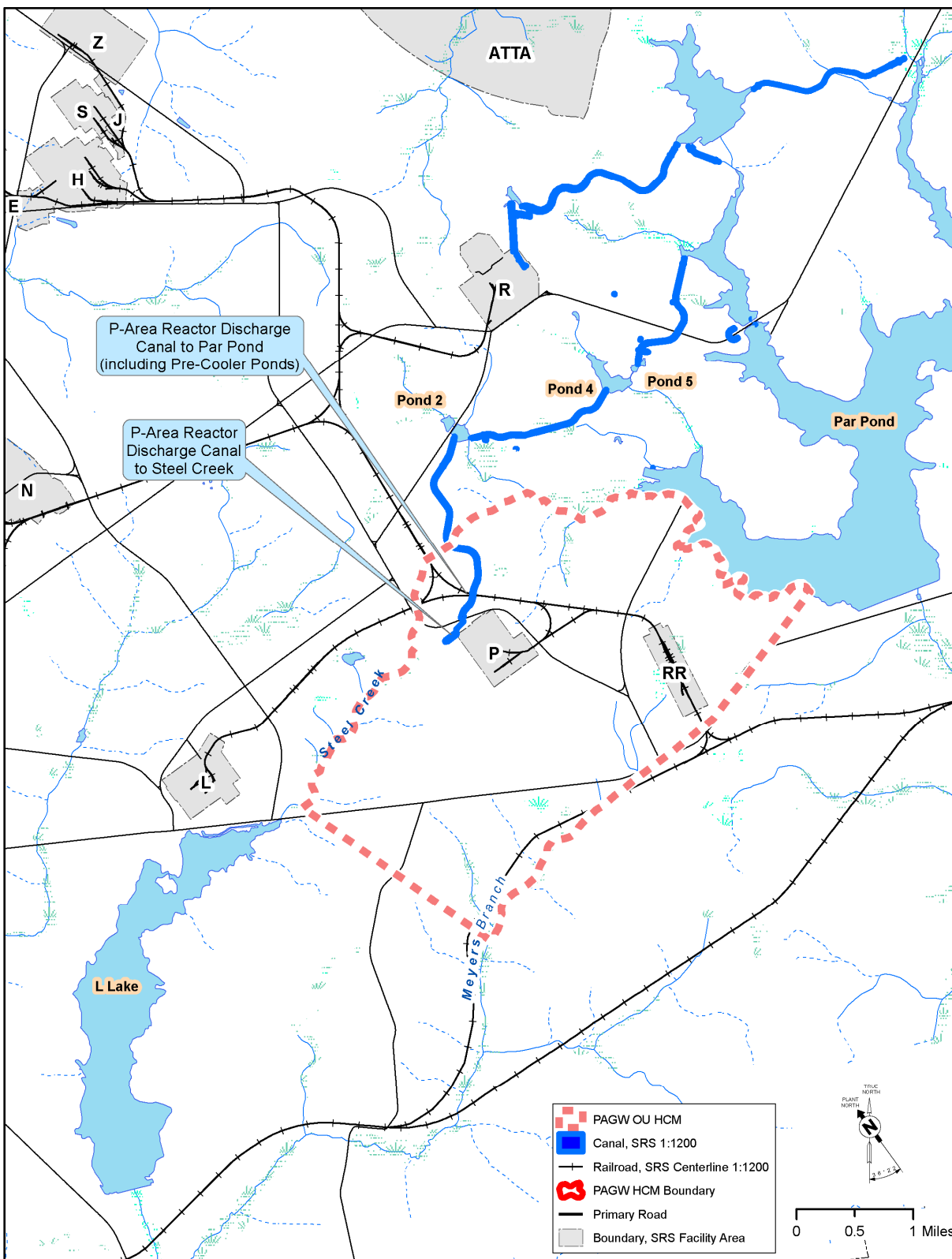


Figure 2. Location of the PAGW OU

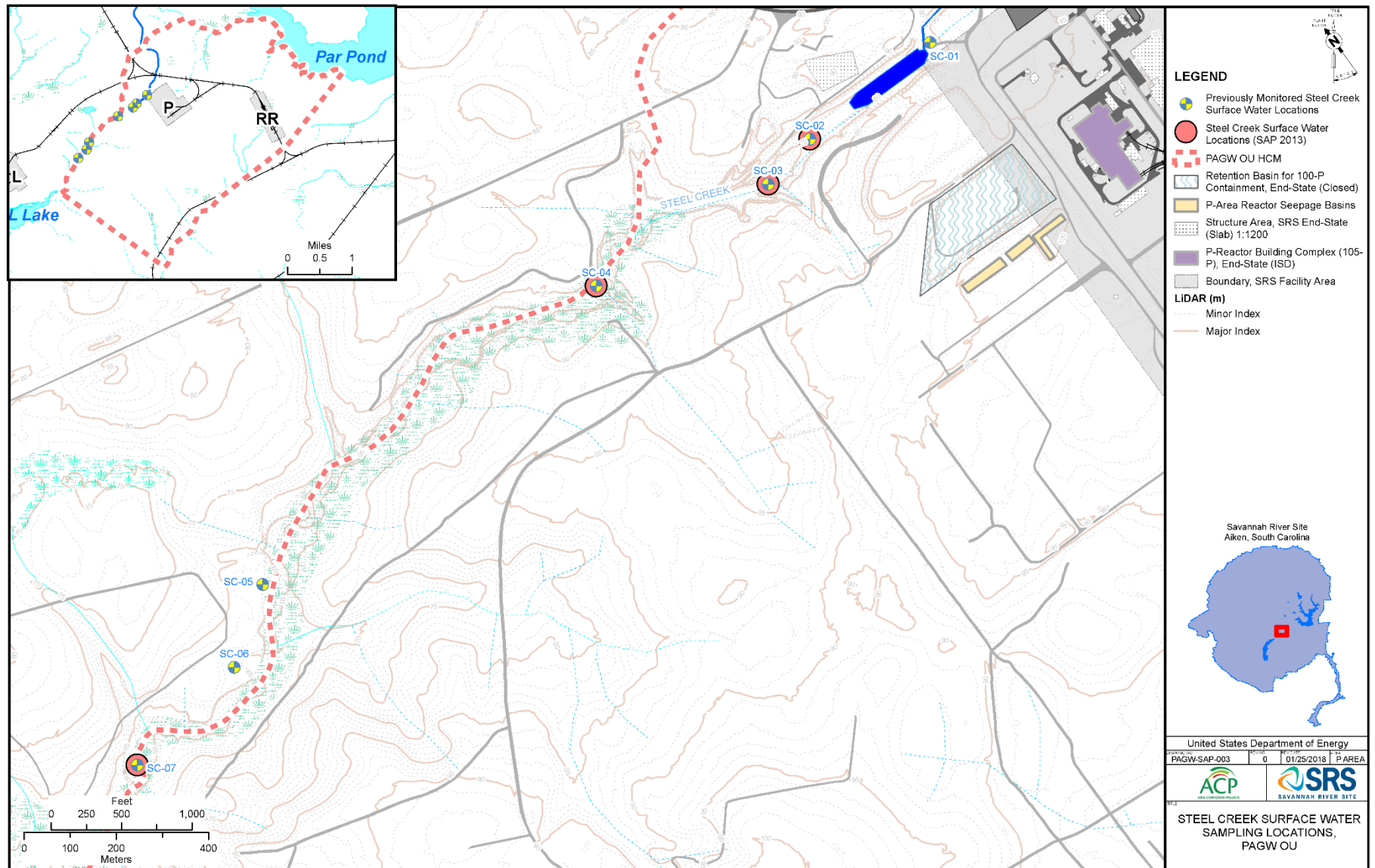


Figure 3. Steel Creek Surface Water Monitoring Locations, PAGW OU

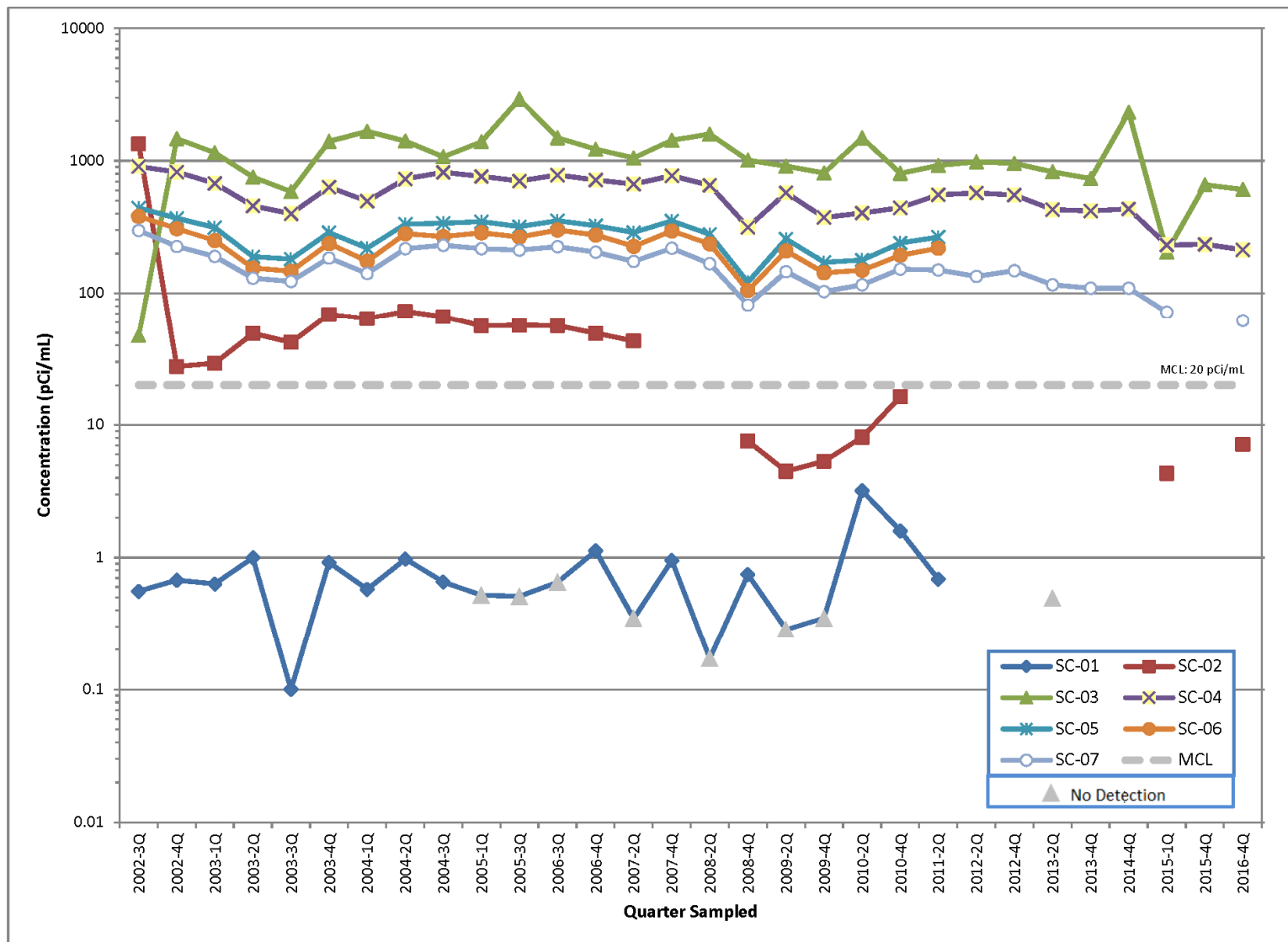


Figure 4. Time-Trend of Tritium Concentrations (pCi/mL) in Steel Creek Surface Water, PAGW OU

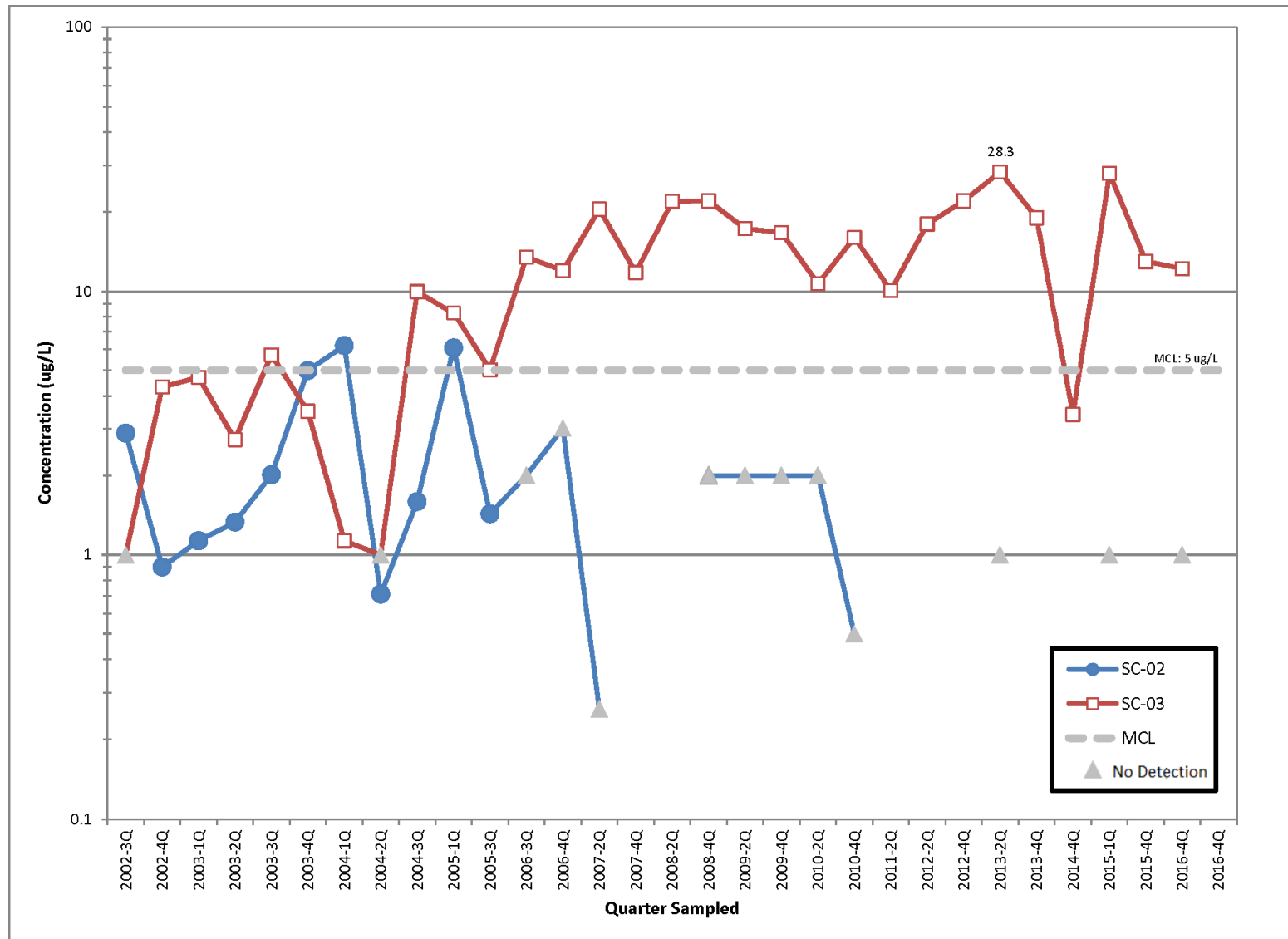


Figure 5. Time-Trend of TCE Concentrations (ug/L) in Steel Creek Surface Water, PAGW OU

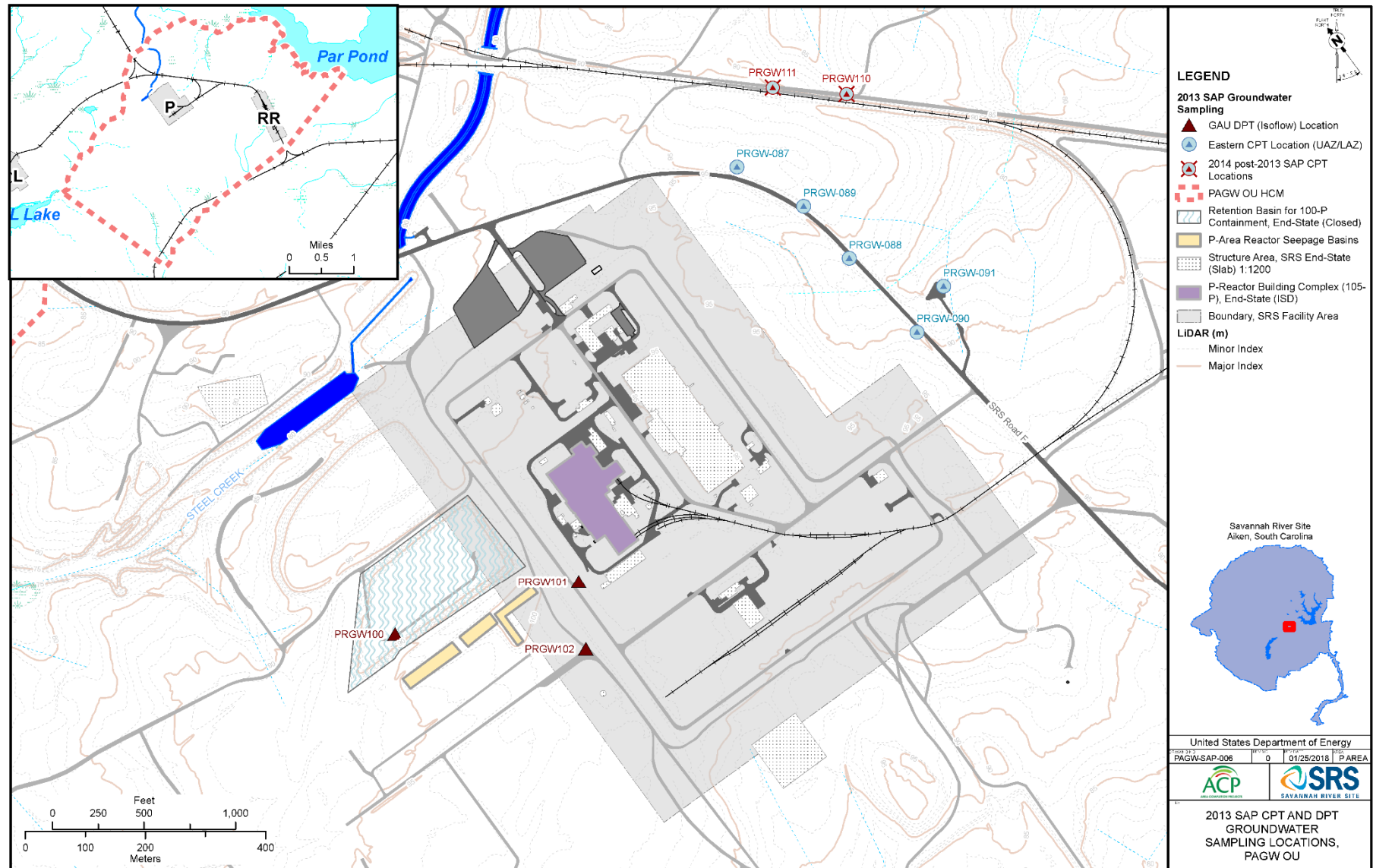


Figure 6. Location of SAP 2013 CPT and DPT Groundwater Sampling Locations, PAGW OU

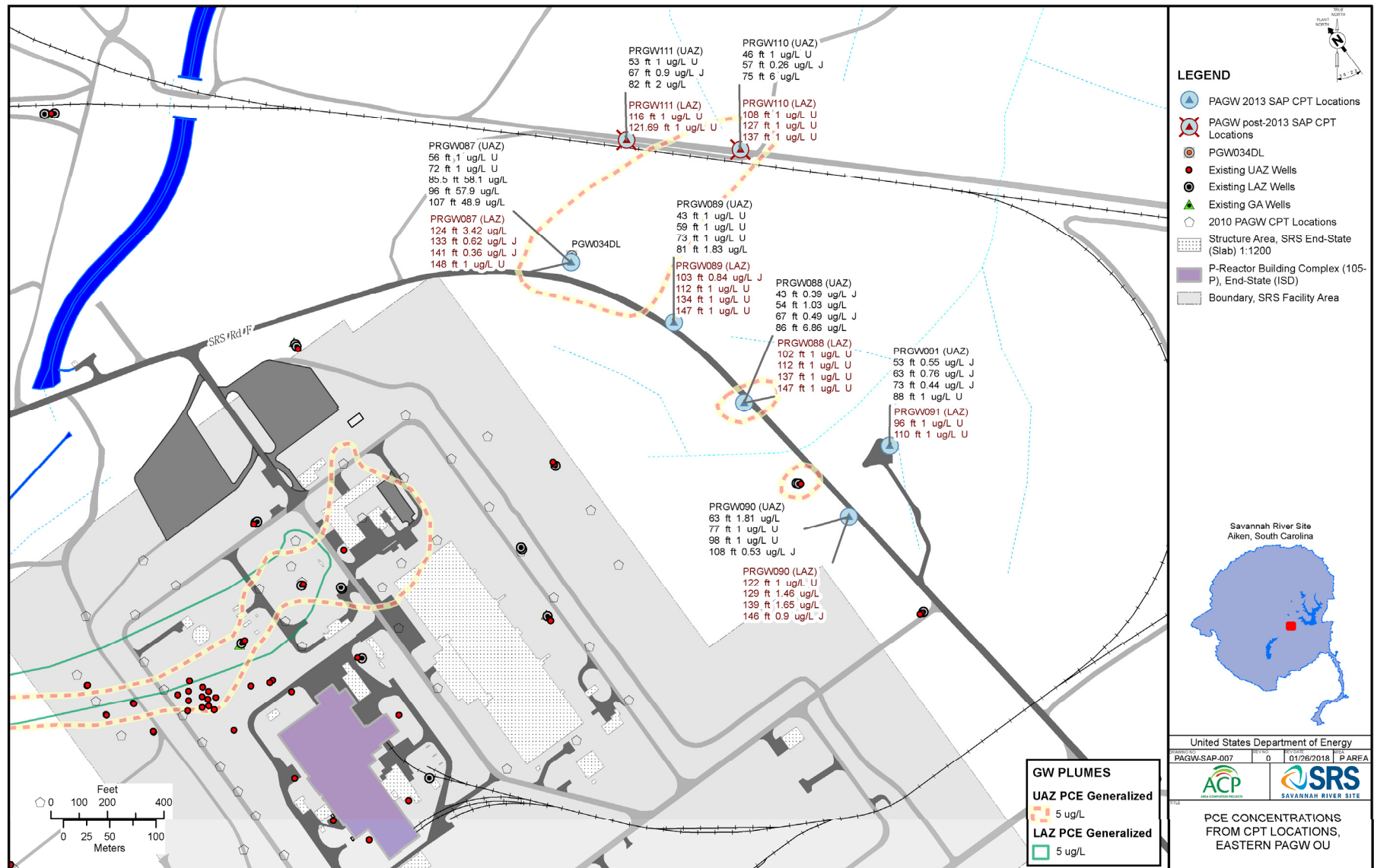


Figure 7. PCE Depth-Discrete Data, Eastern CPTs, PAGW OU

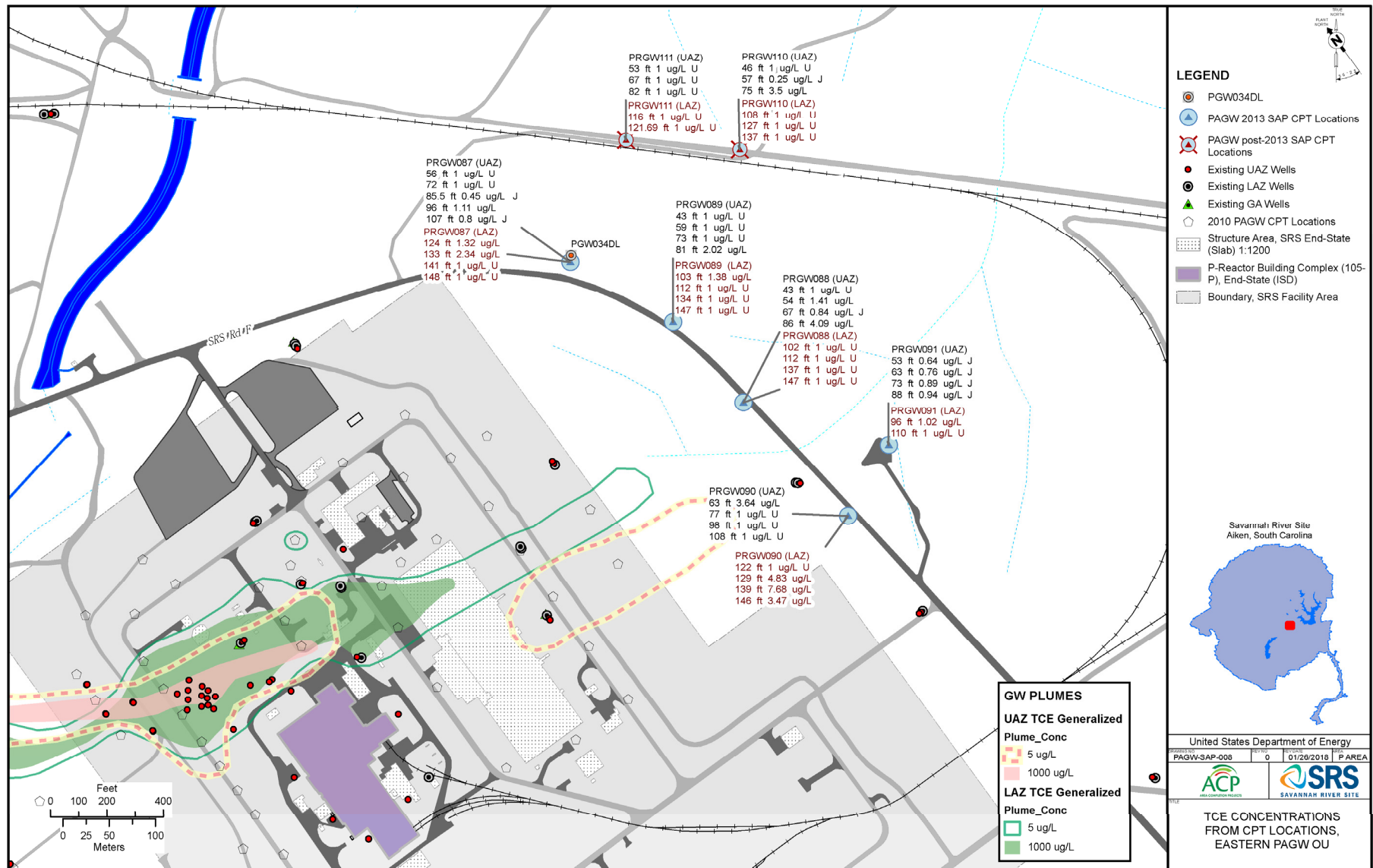


Figure 8. TCE Depth-Discrete Data, Eastern CPTs, PAGW OU

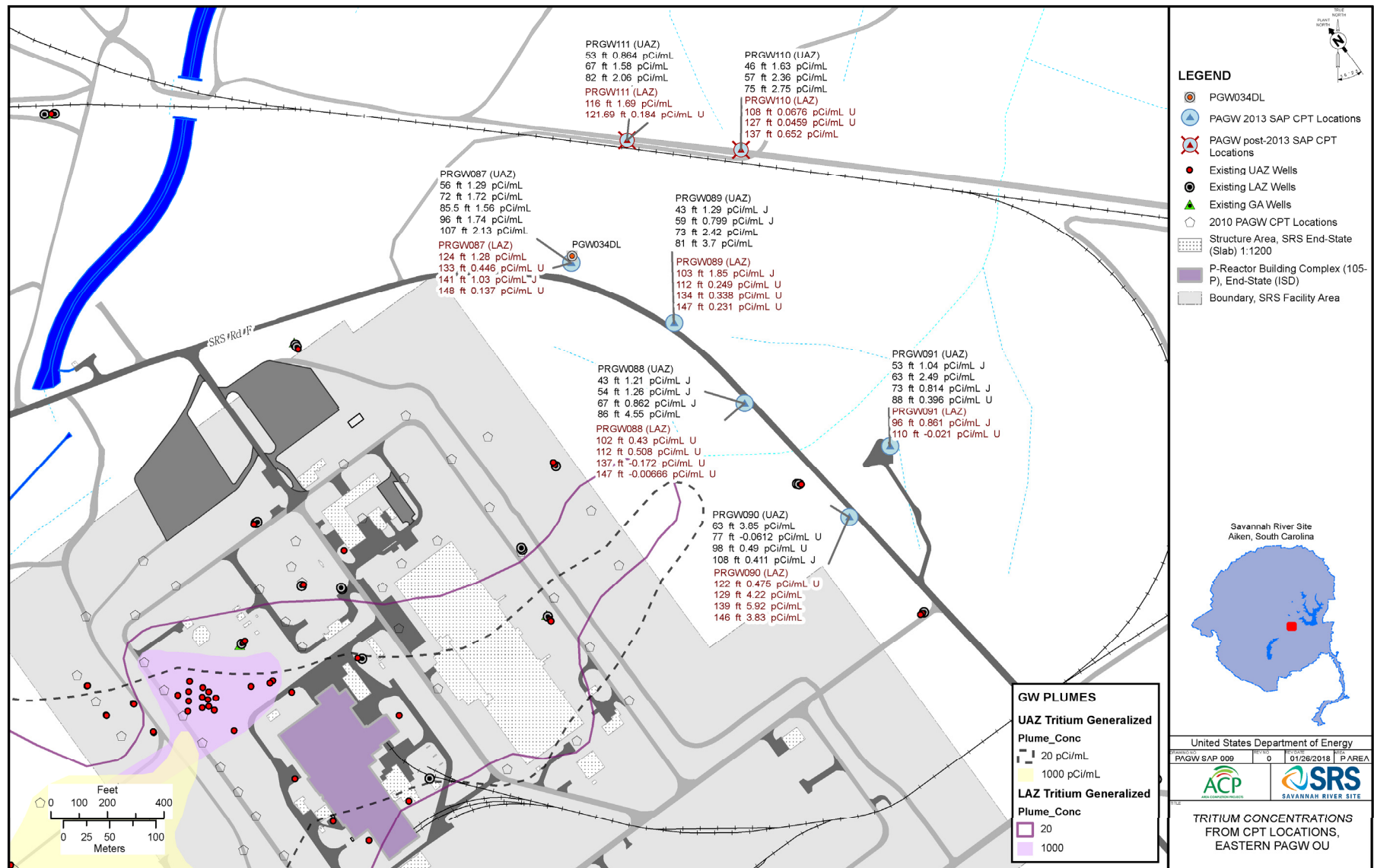


Figure 9. Tritium Depth-Discrete Data, Eastern CPTs, PAGW OU

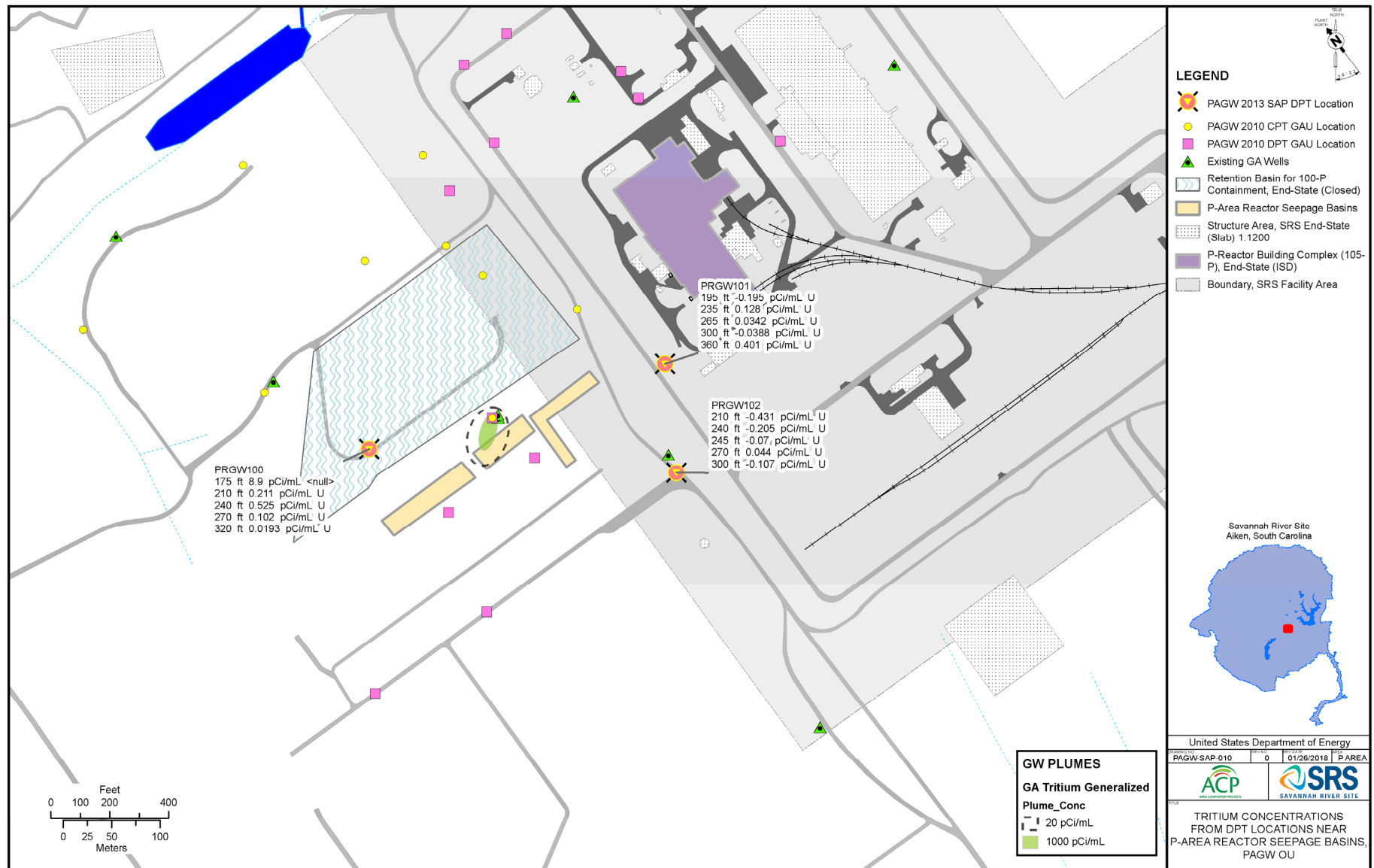


Figure 10. Tritium Depth-Discrete Data at the PRSBs in the GAU, PAGW OU

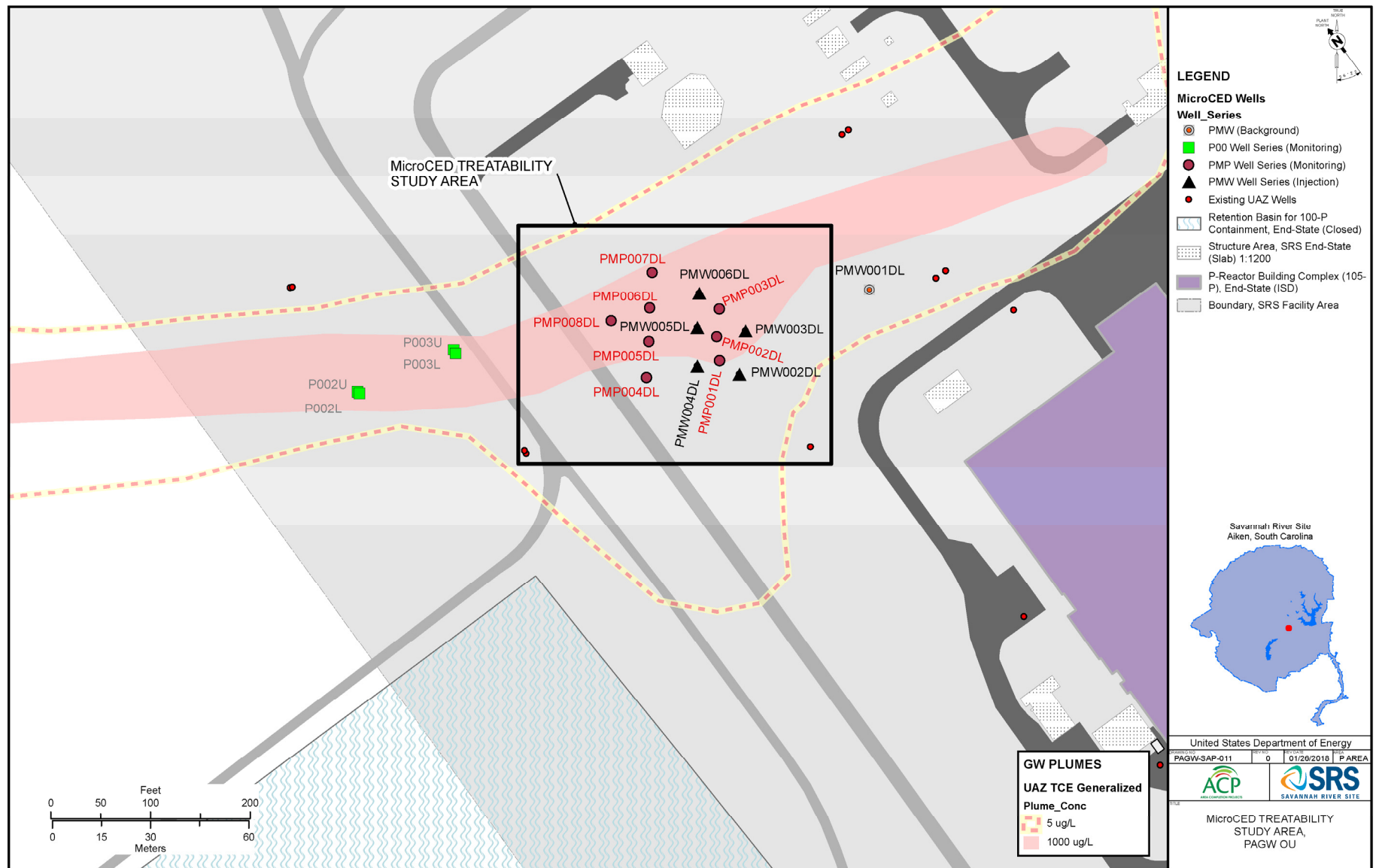


Figure 11. MicroCED Treatability Study Area, PAGW OU



Figure 12. Photograph of BioTrap® from Injection Well PMW003DL

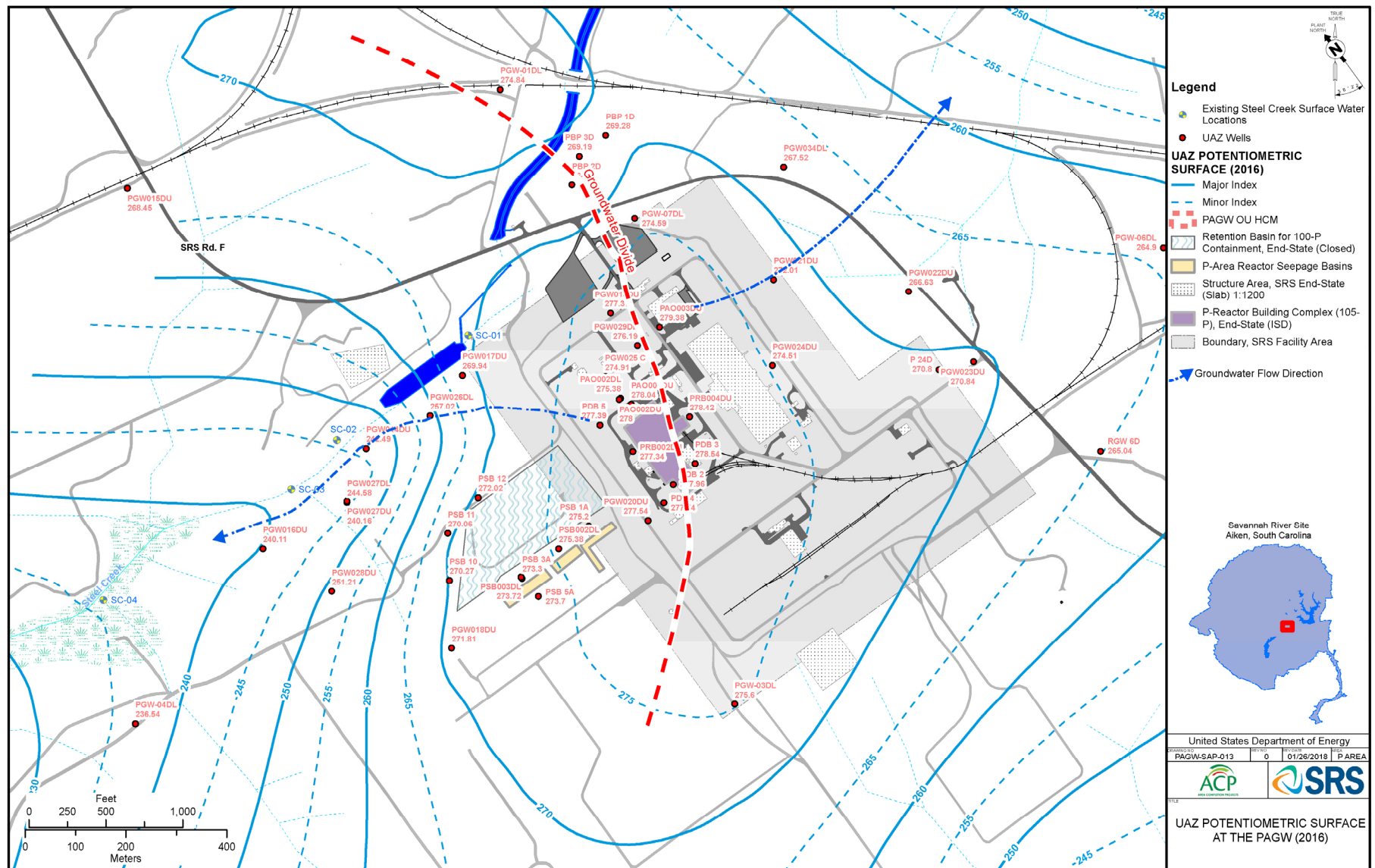


Figure 13. Potentiometric Surface of the UAZ, PAGW OU

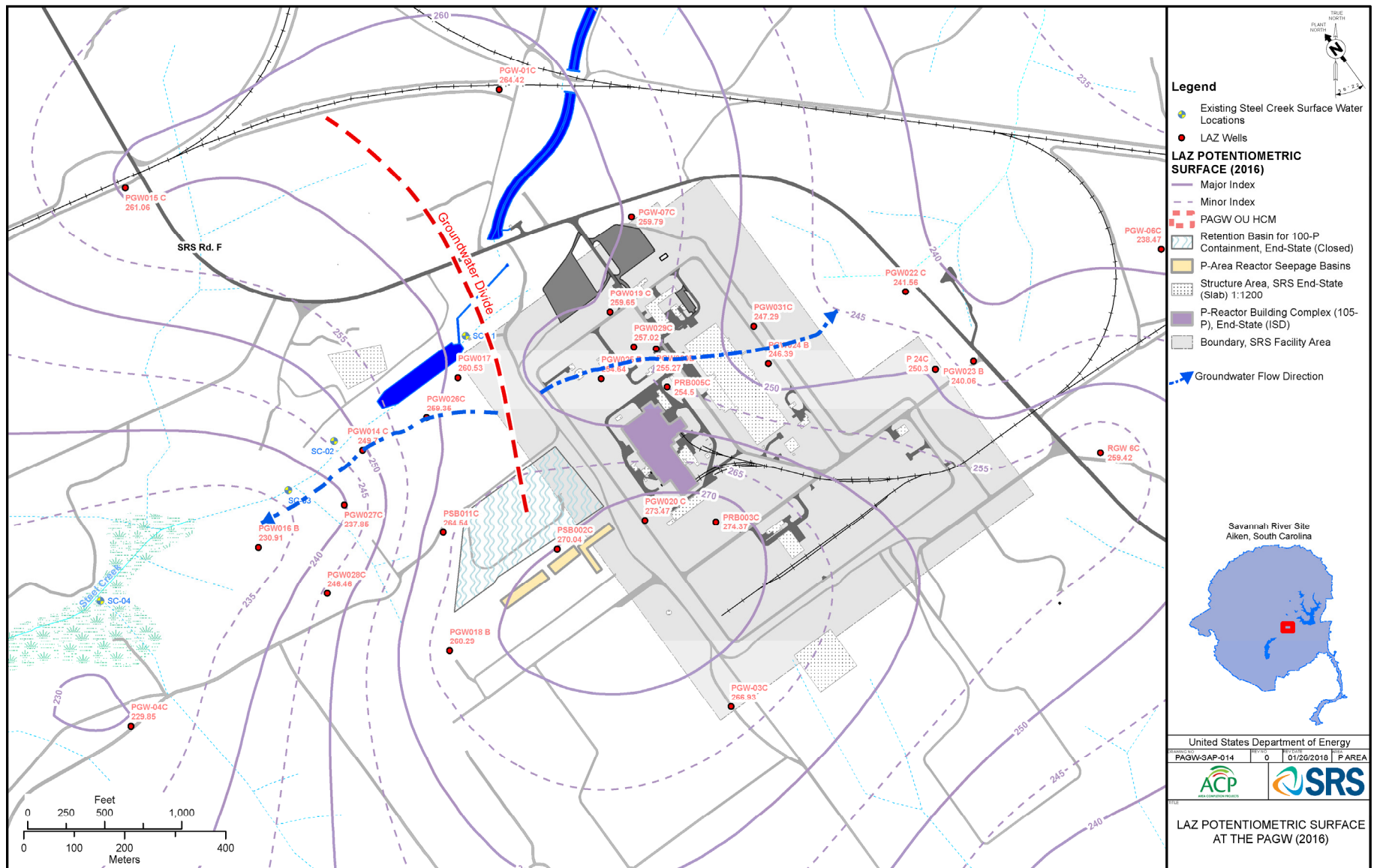


Figure 14. Potentiometric Surface of the LAZ, PAGW OU

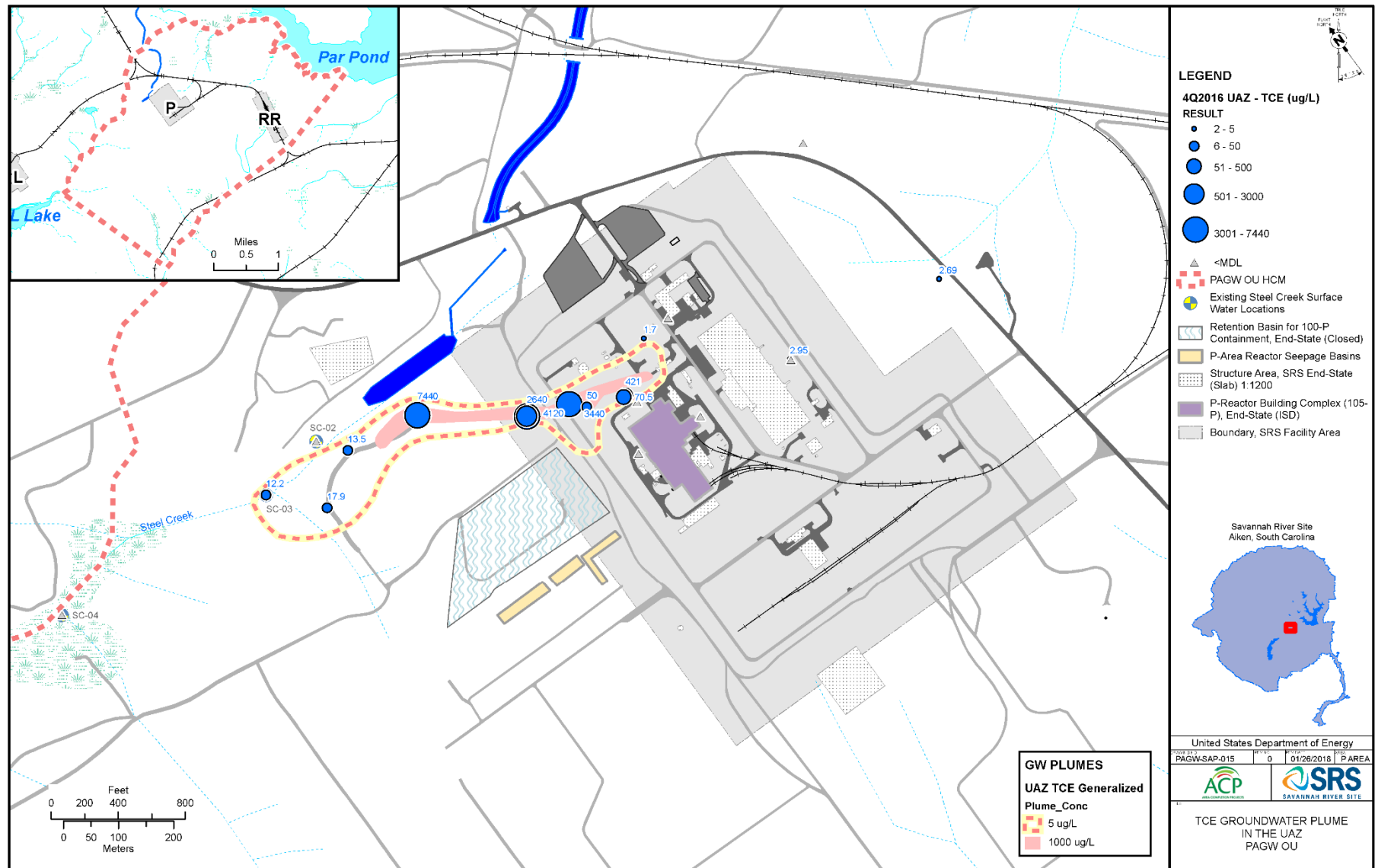


Figure 15. TCE Groundwater Plume in the UAZ, PAGW OU

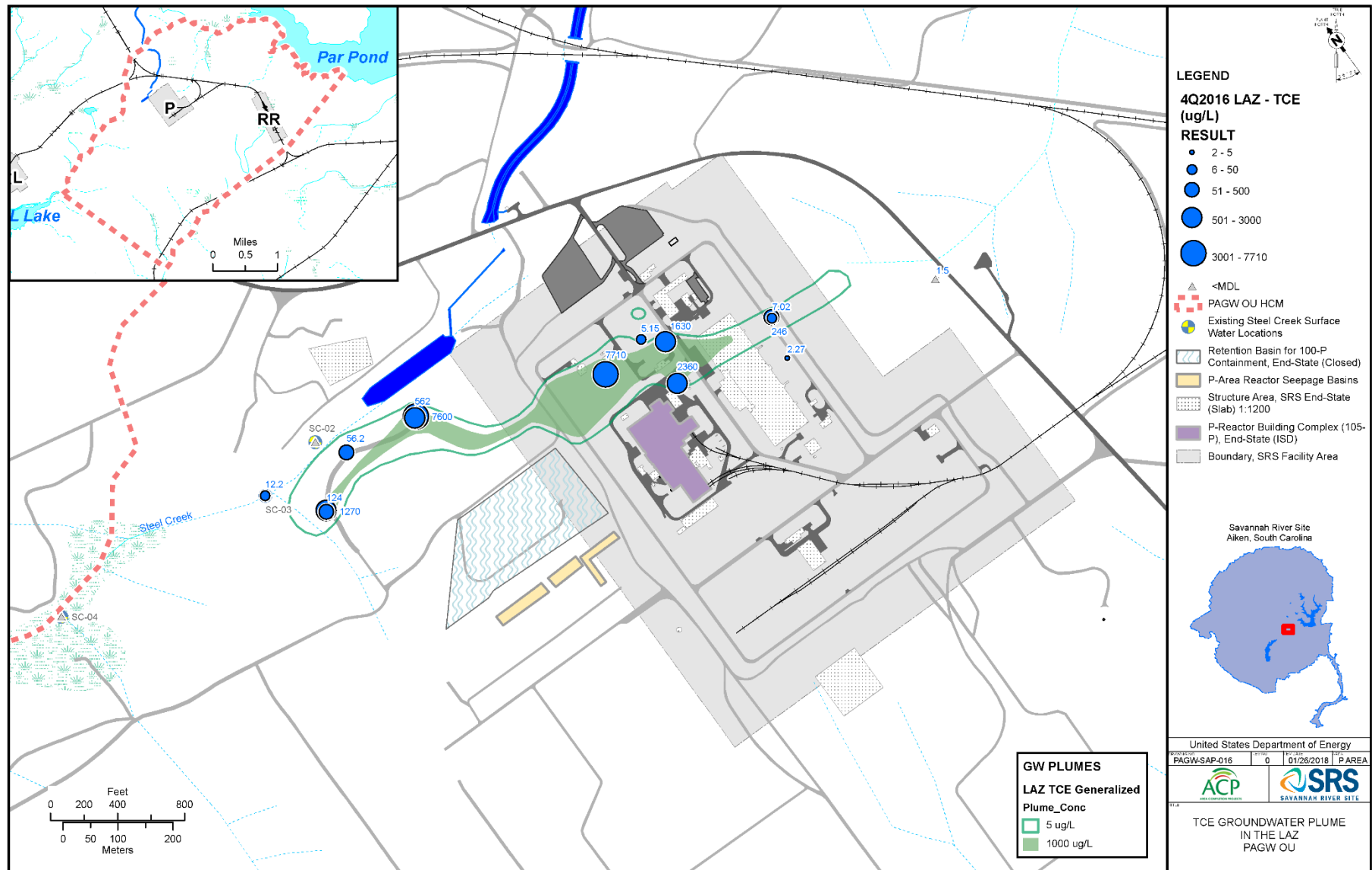


Figure 16. TCE Groundwater Plume in the LAZ, PAGW OU

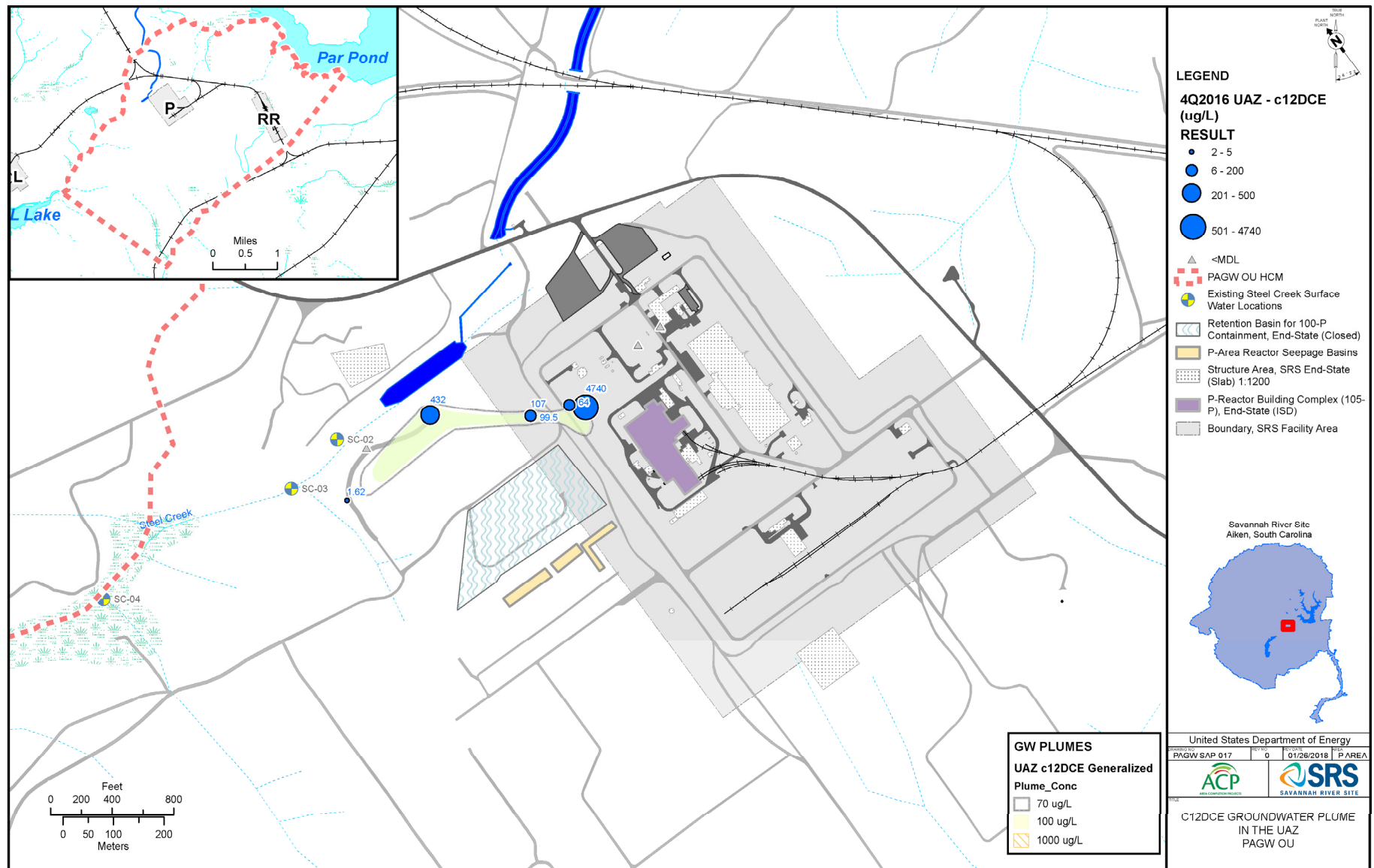


Figure 17. C12DCE Groundwater Plume in the UAZ, PAGW OU

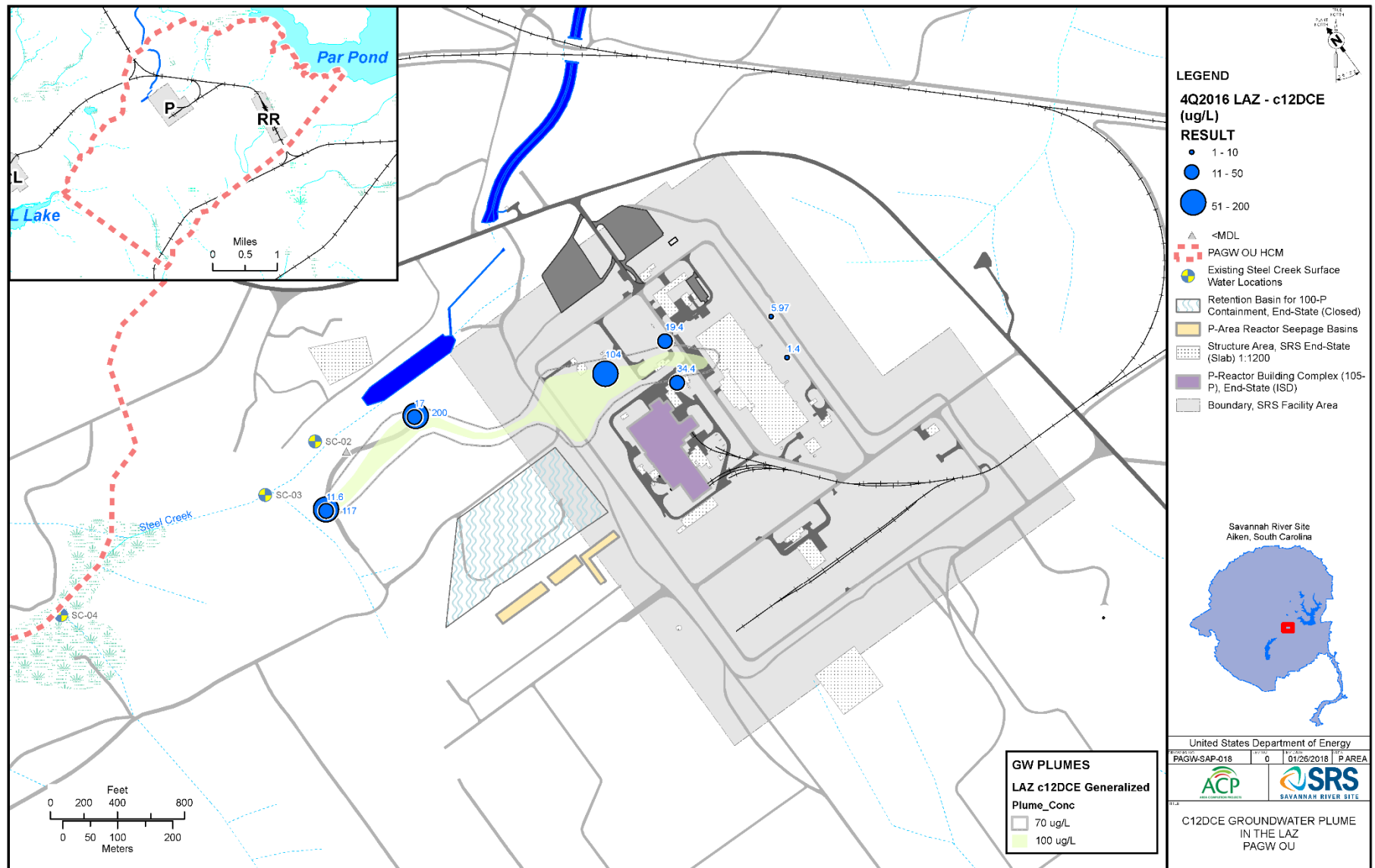


Figure 18. C12DCE Groundwater Plume in the LAZ, PAGW OU

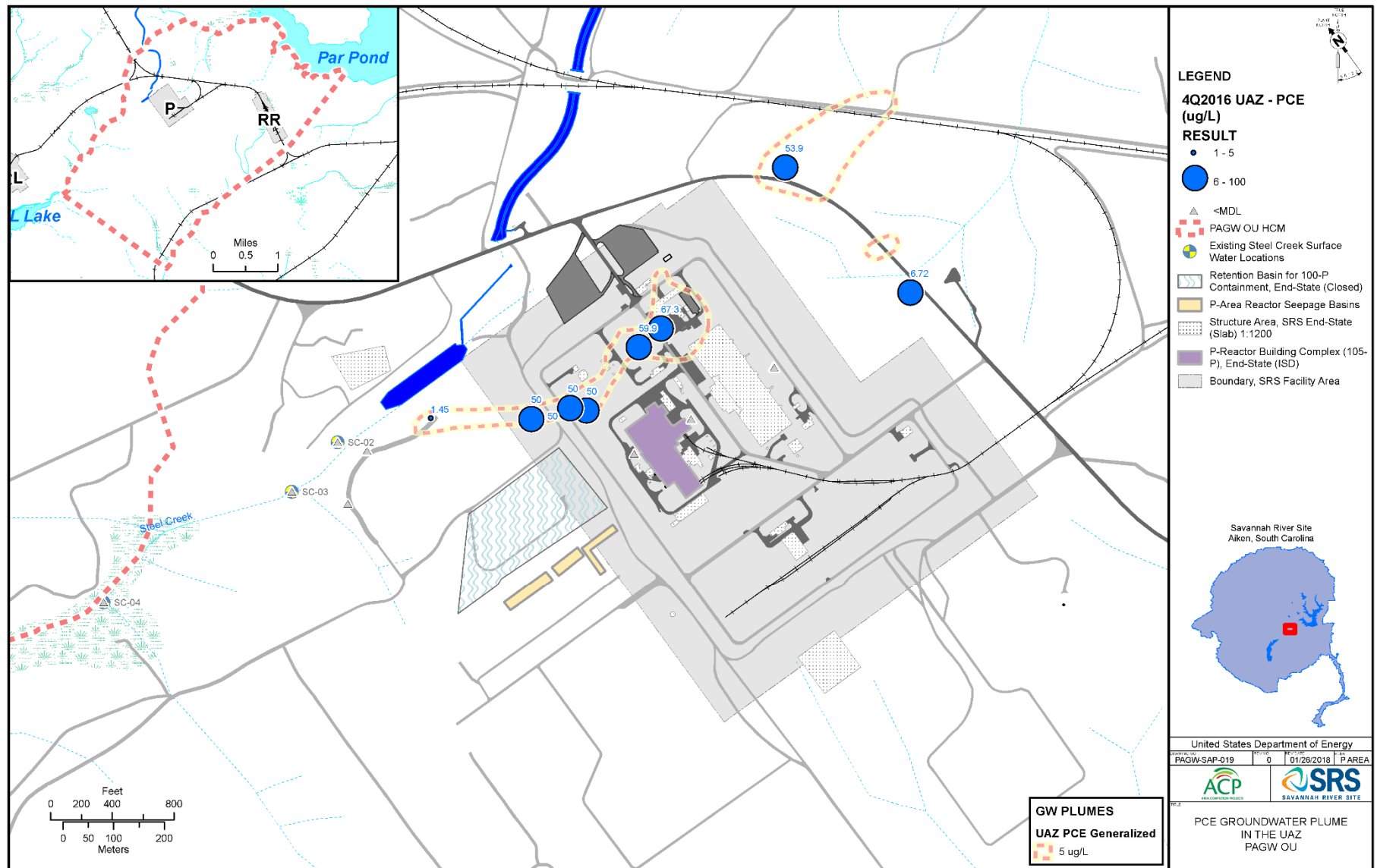


Figure 19. PCE Groundwater Plume in the UAZ, PAGW OU

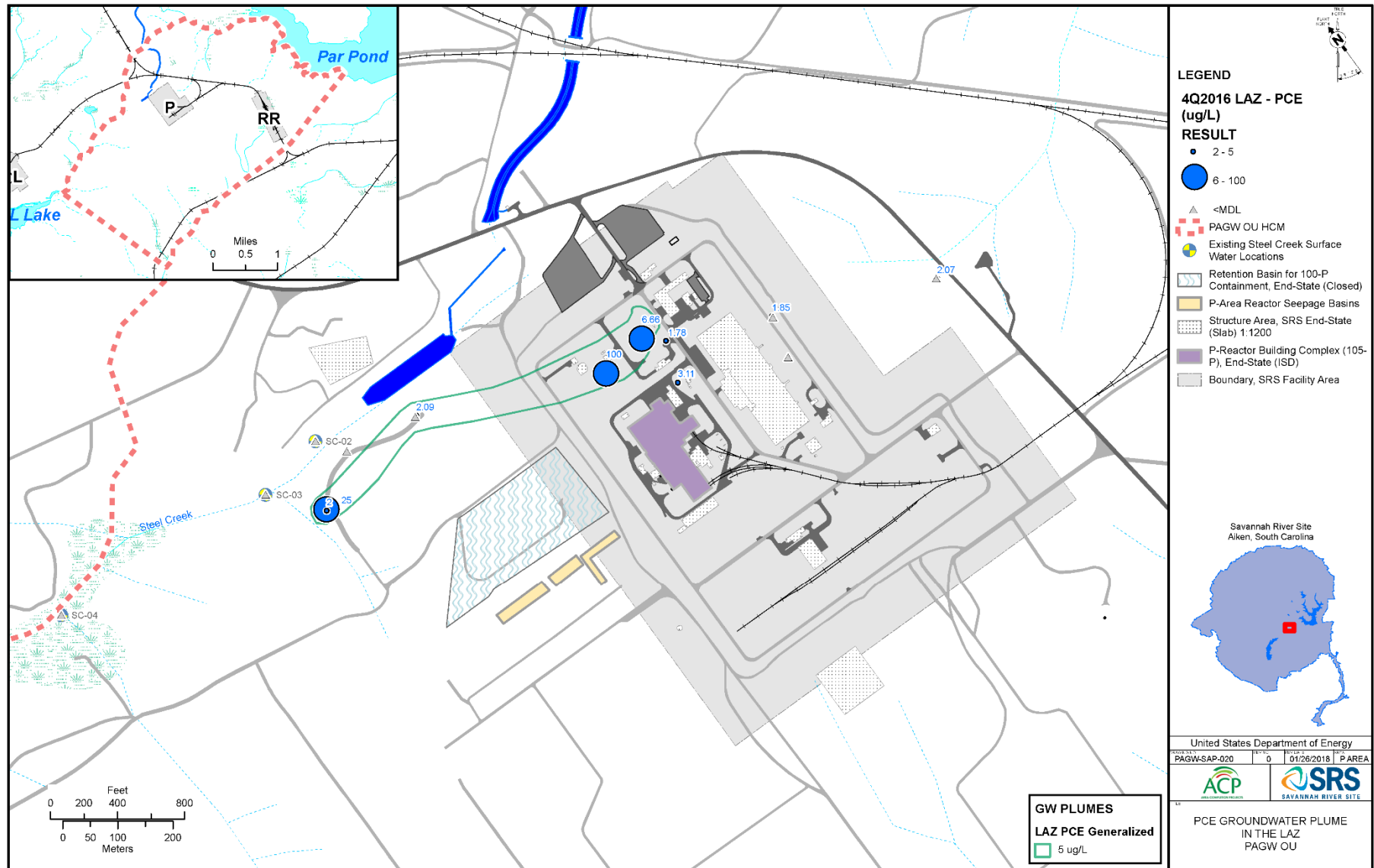


Figure 20. PCE Groundwater Plume in the LAZ, PAGW OU

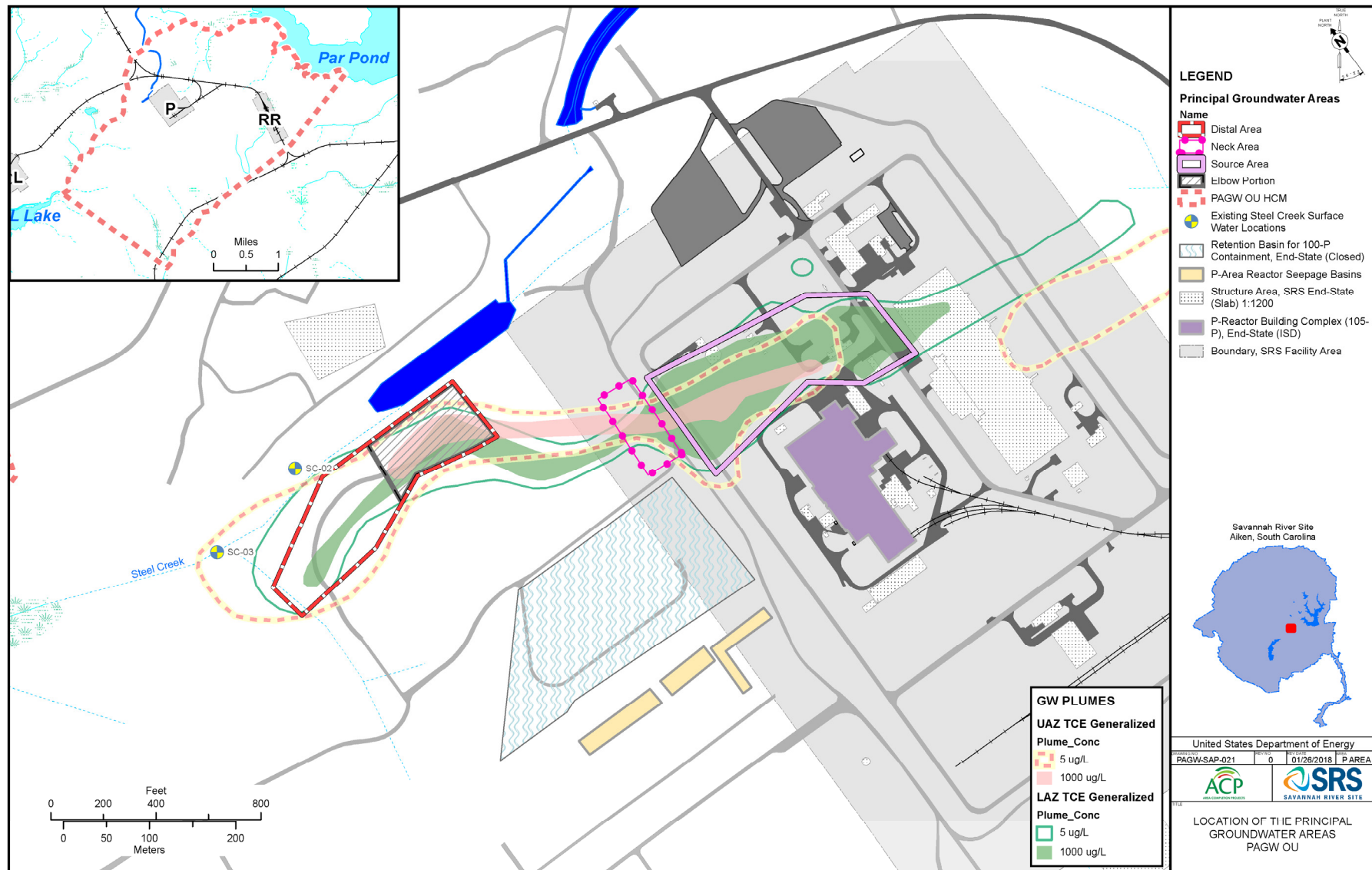


Figure 21. Principal Groundwater Areas, PAGW OU

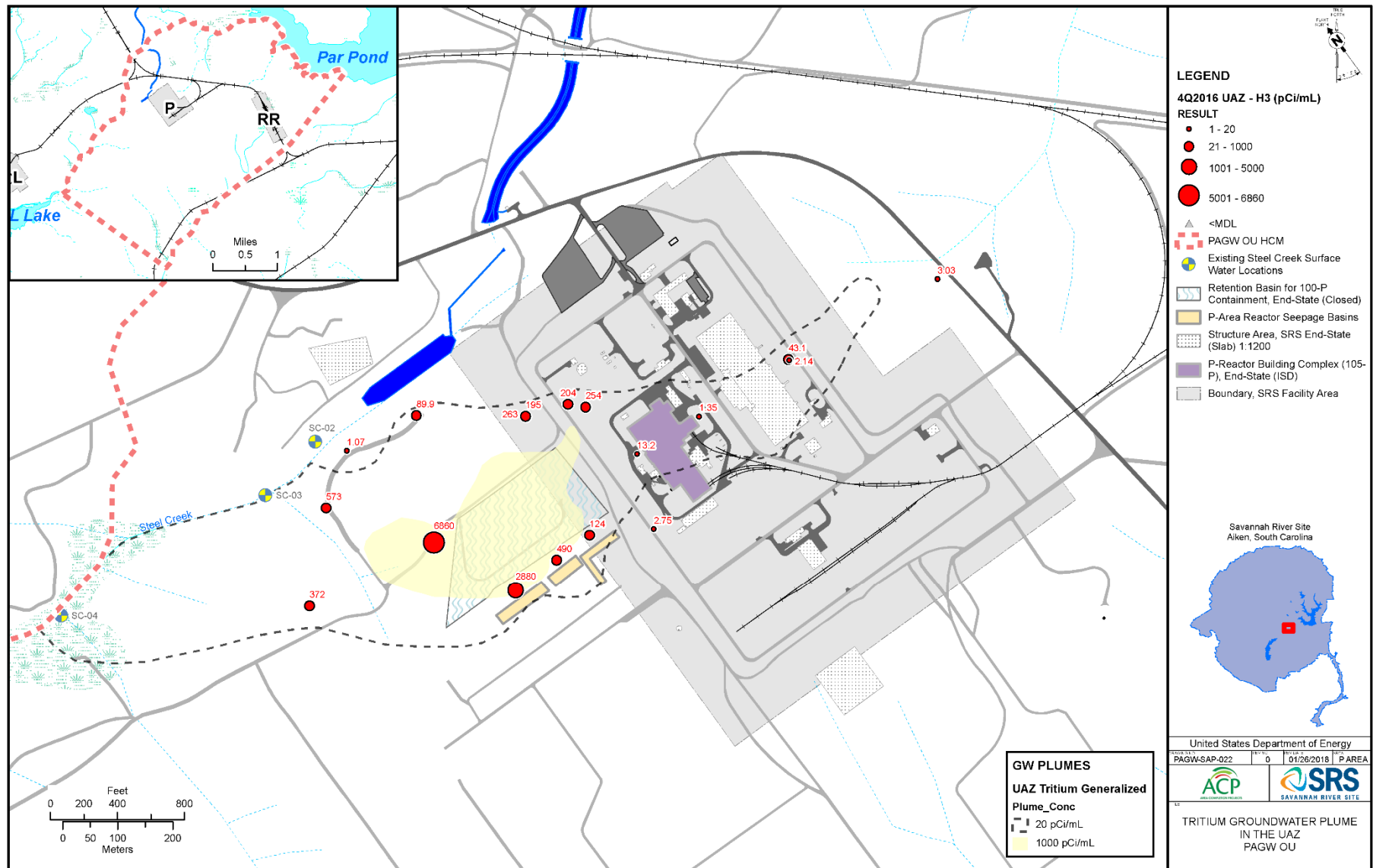


Figure 22. Tritium Groundwater Plume in the UAZ, PAGW OU

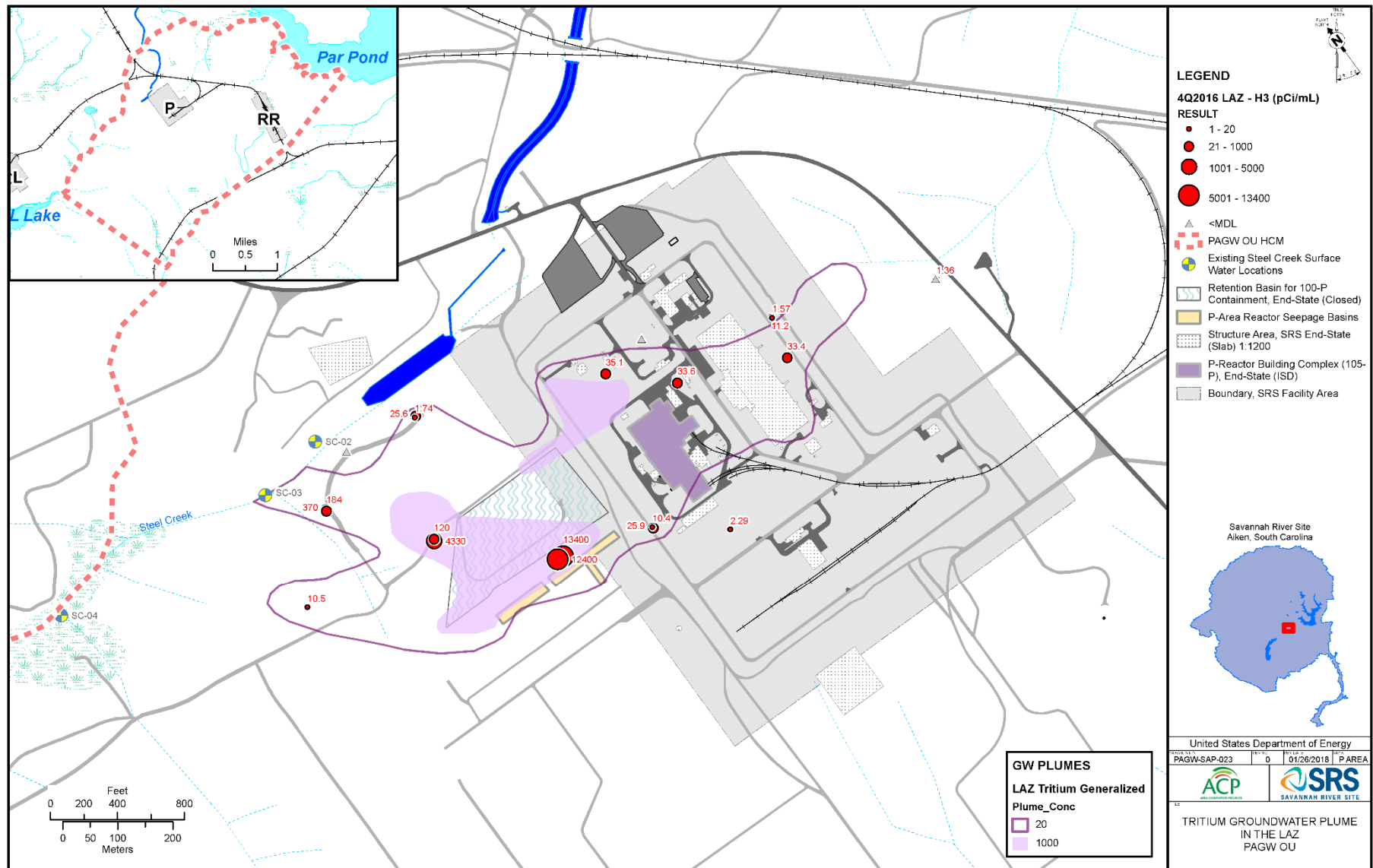


Figure 23. Tritium Groundwater Plume in the LAZ, PAGW OU

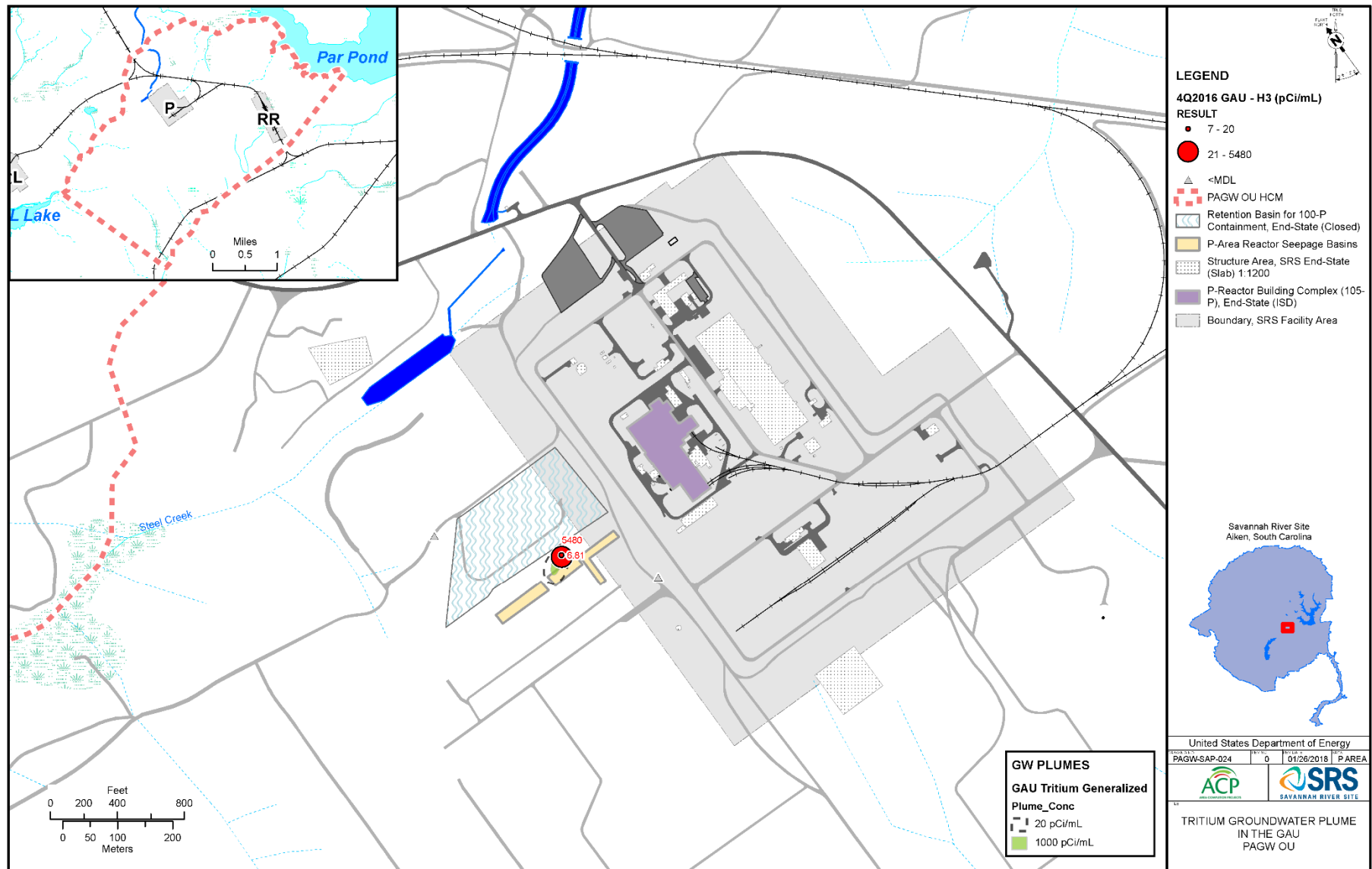


Figure 24. Tritium Groundwater Plume in the GAU, PAGW OU

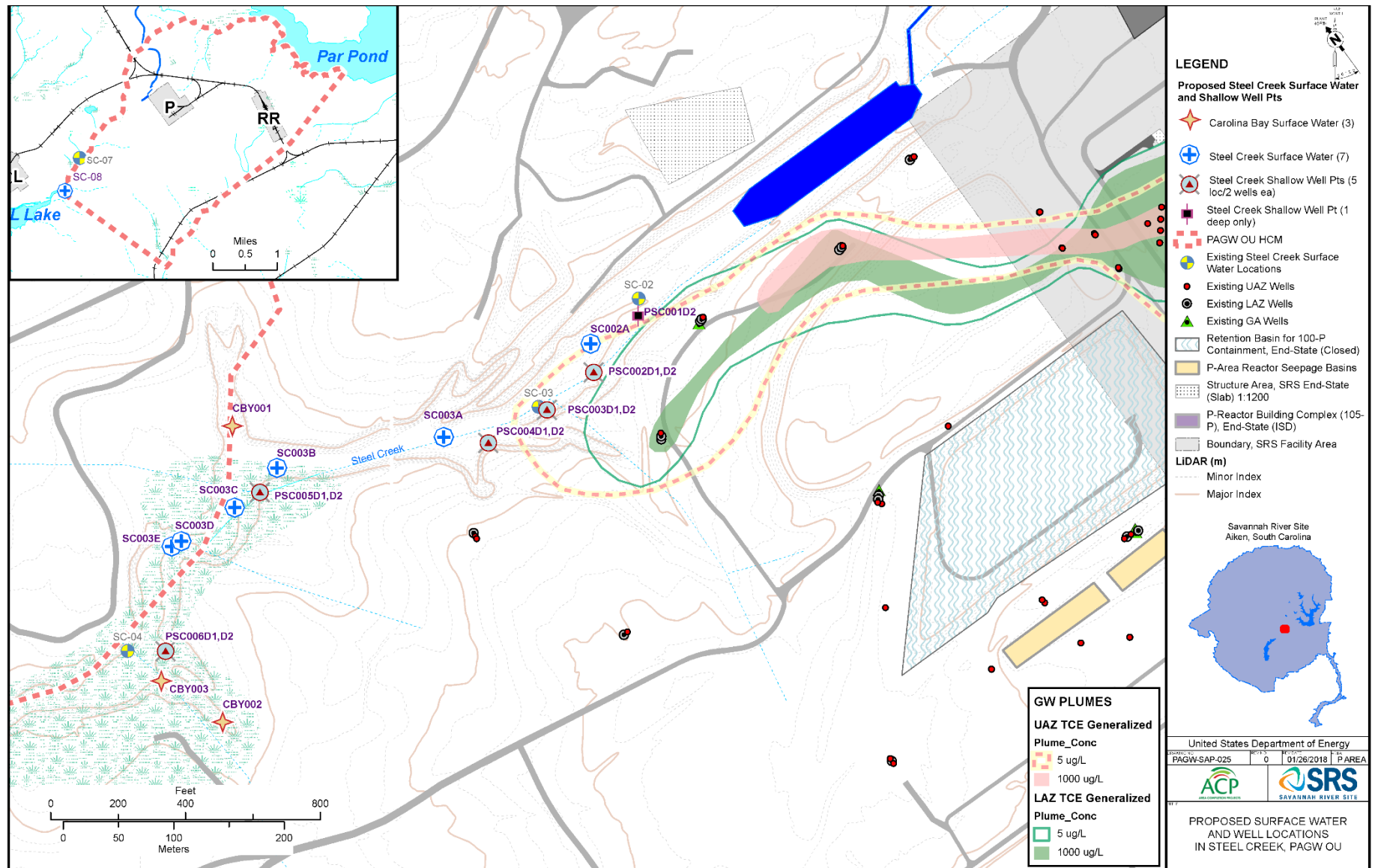


Figure 25. Proposed Surface Water and Well Locations in Steel Creek, PAGW OU

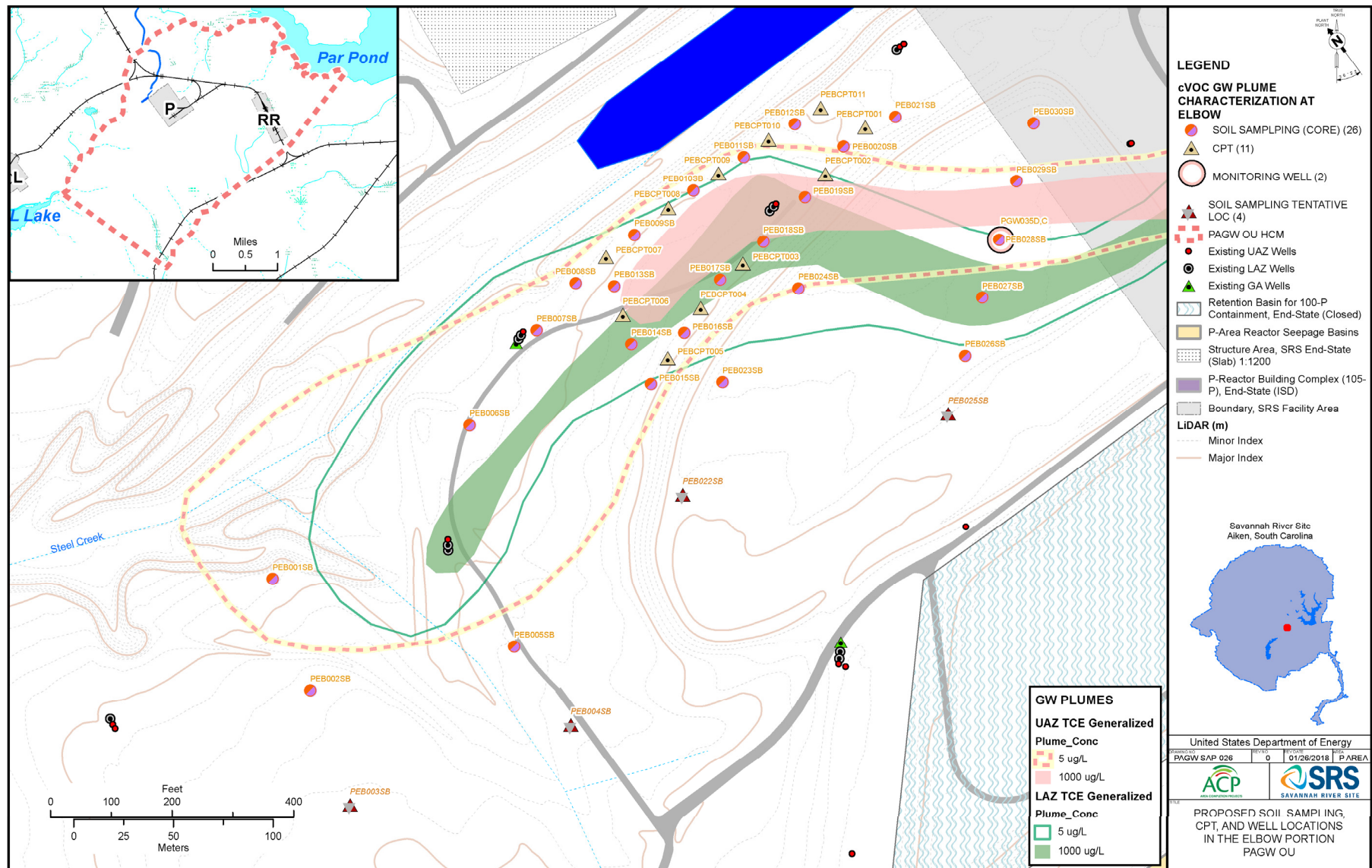


Figure 26. Proposed Soil Sampling, CPT, and Well Installations in the Elbow Portion of the Distal Area, PAGW OU

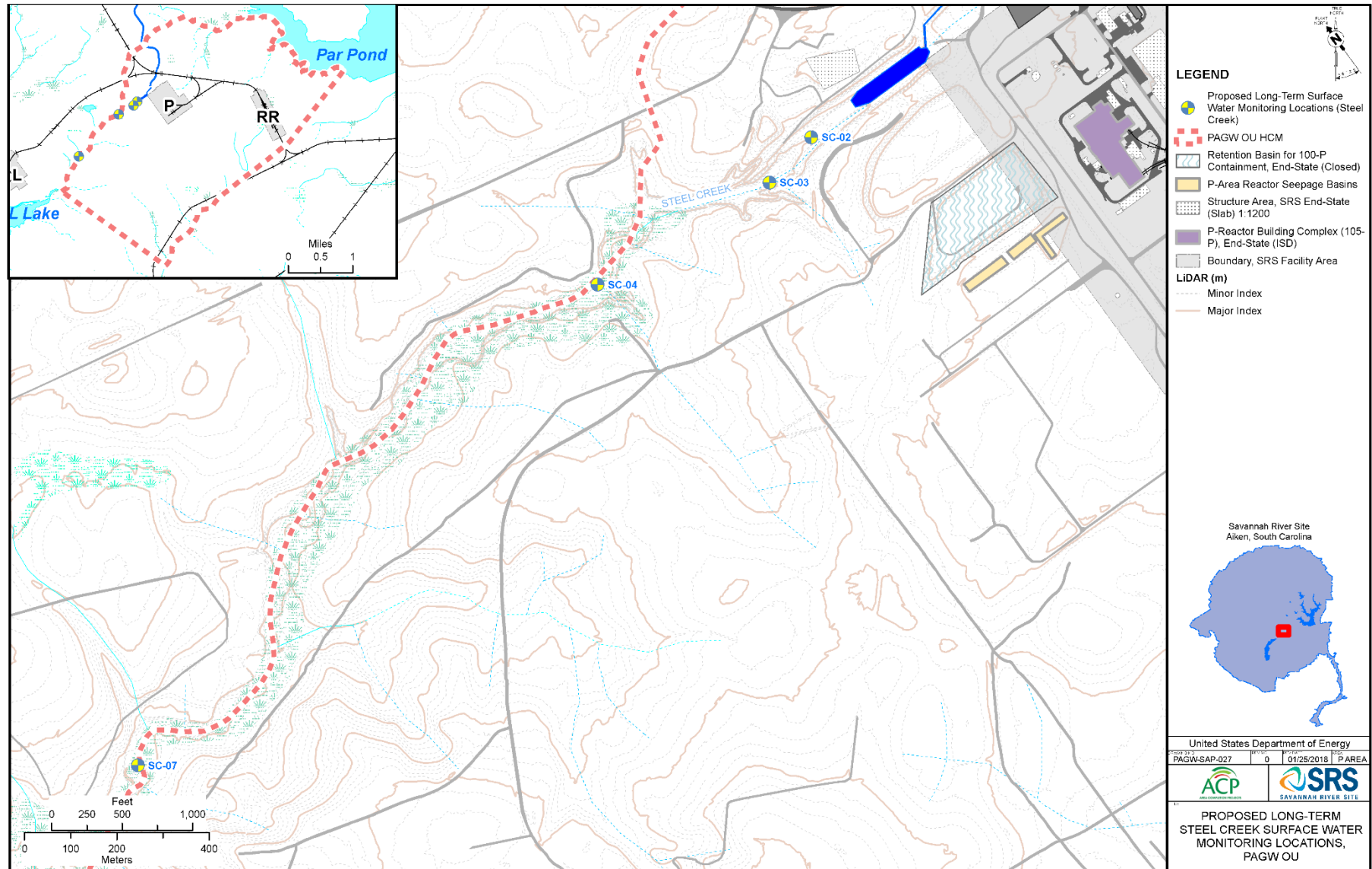


Figure 27. Proposed Steel Creek Surface Water Monitoring Locations, PAGW OU

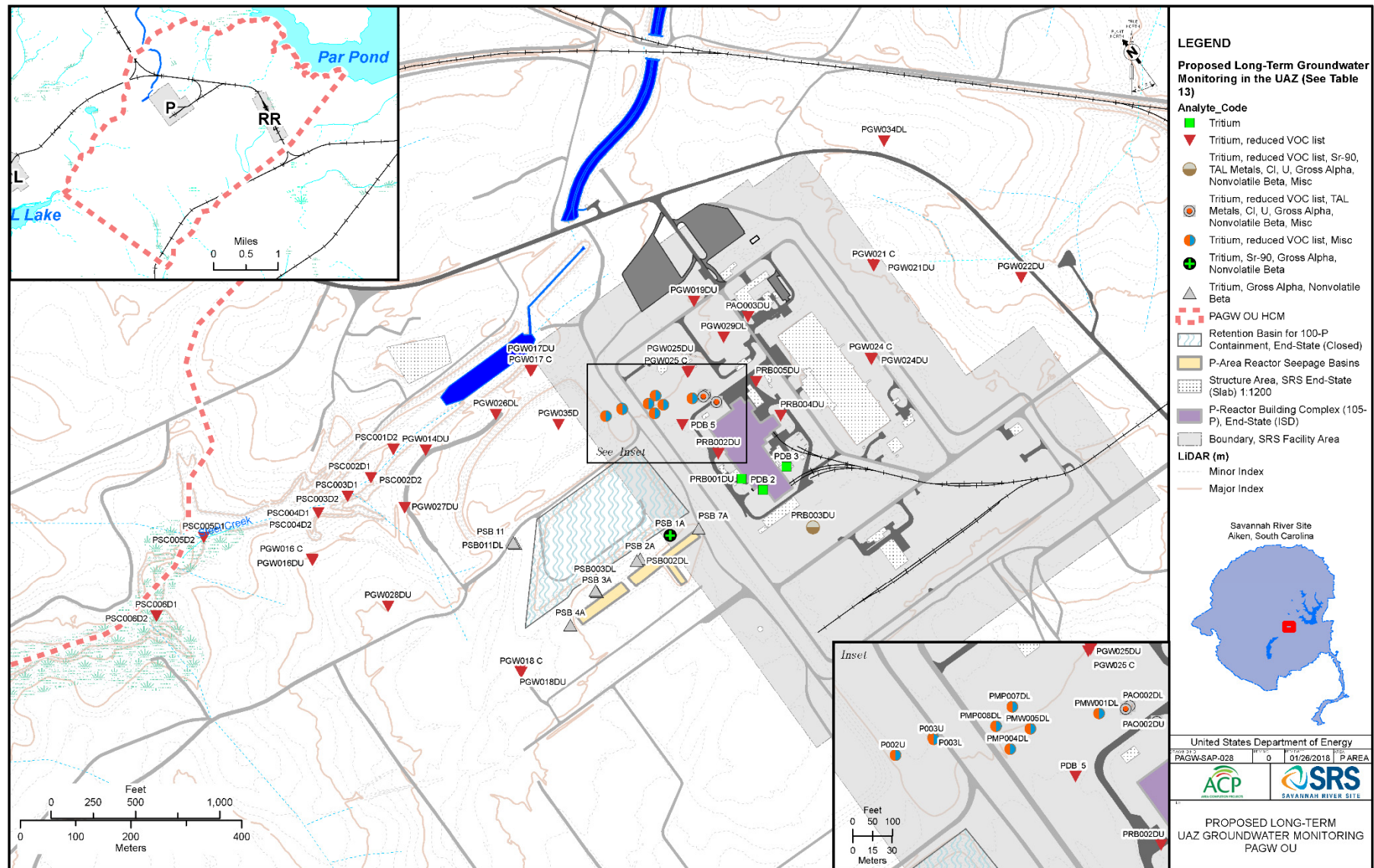


Figure 28. Proposed Long-Term Groundwater Monitoring in the UAZ, PAGW OU

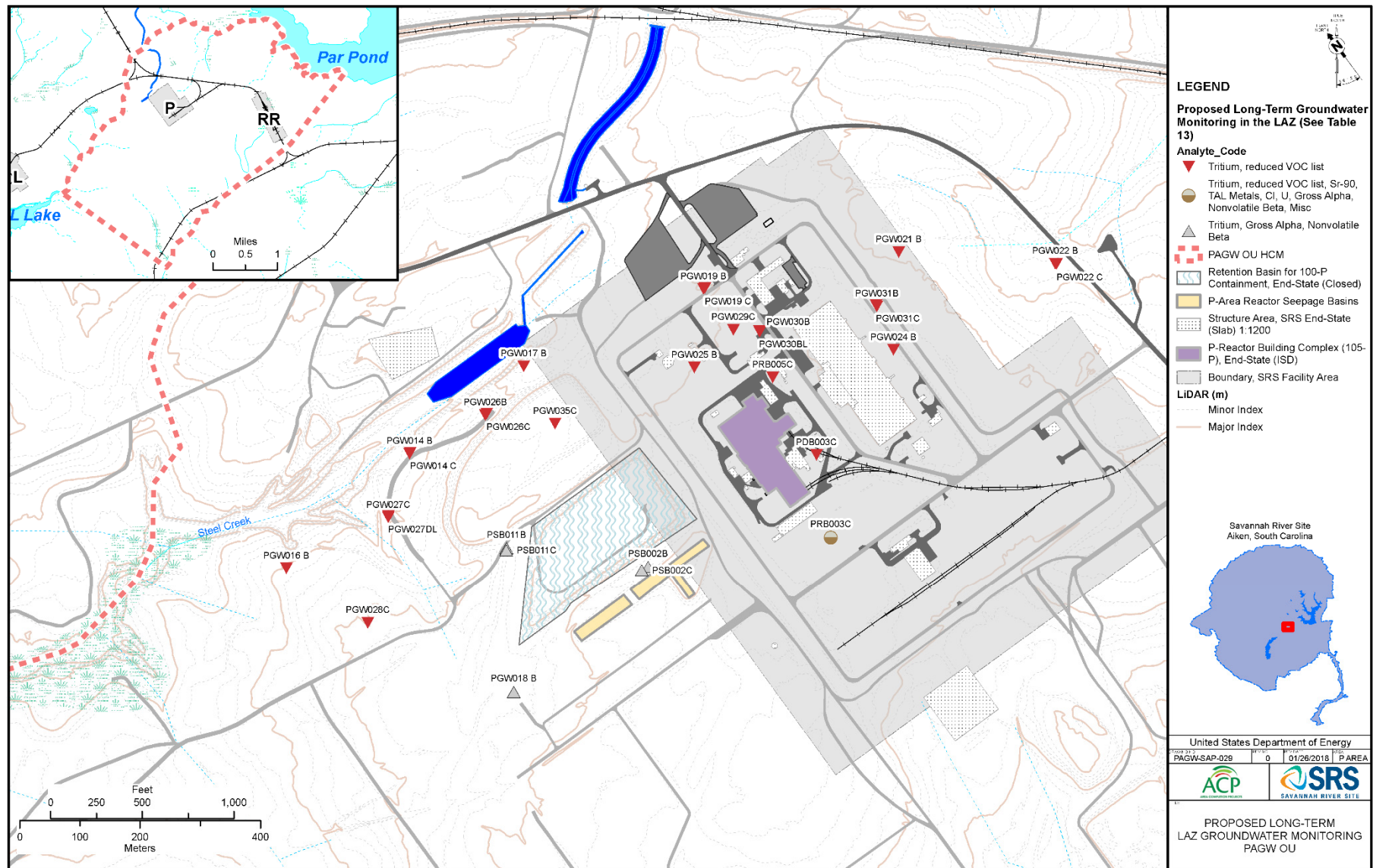


Figure 29. Proposed Long-Term Groundwater Monitoring in the LAZ, PAGW OU

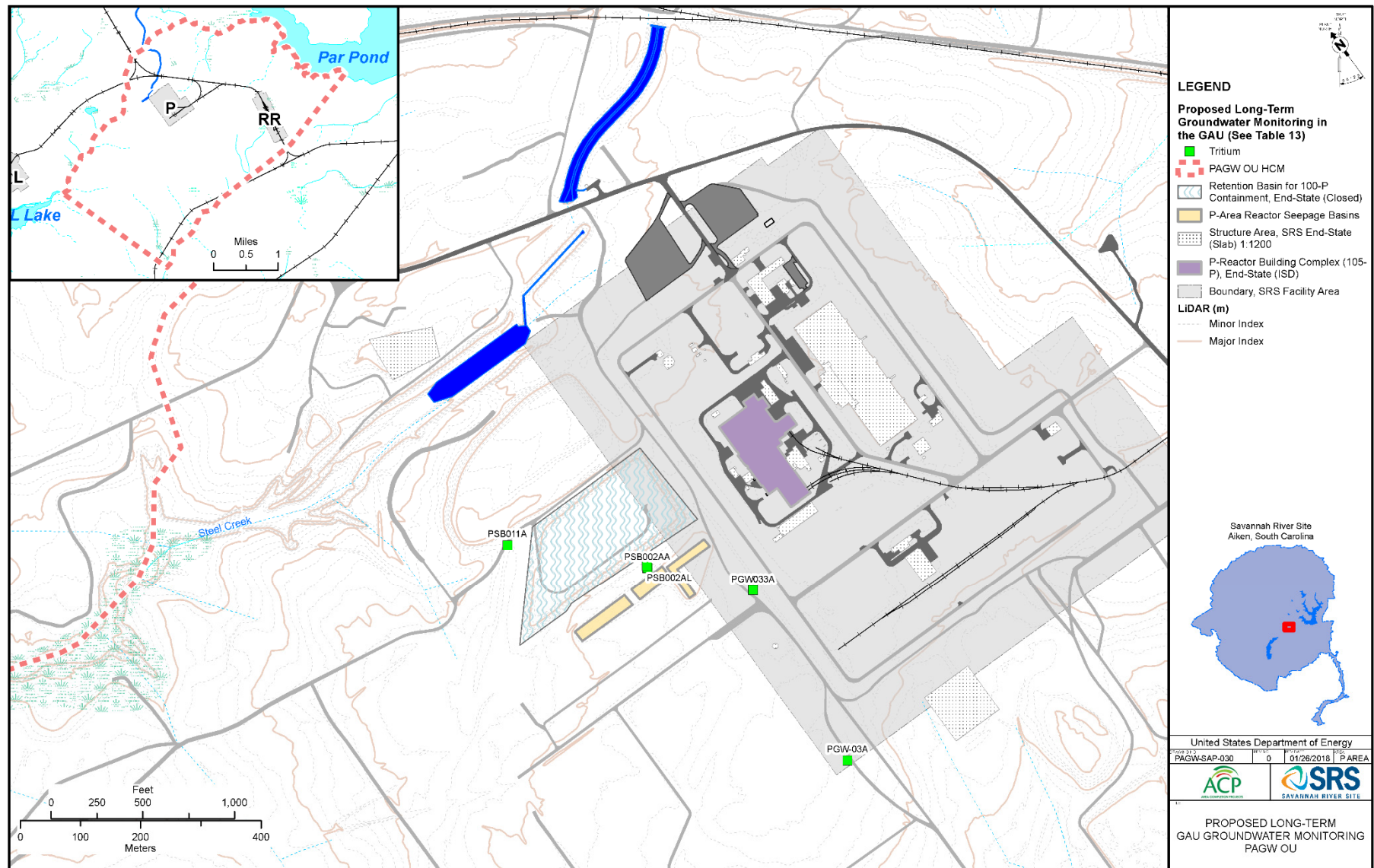


Figure 30. Proposed Long-Term Groundwater Monitoring in the GAU, PAGW OU

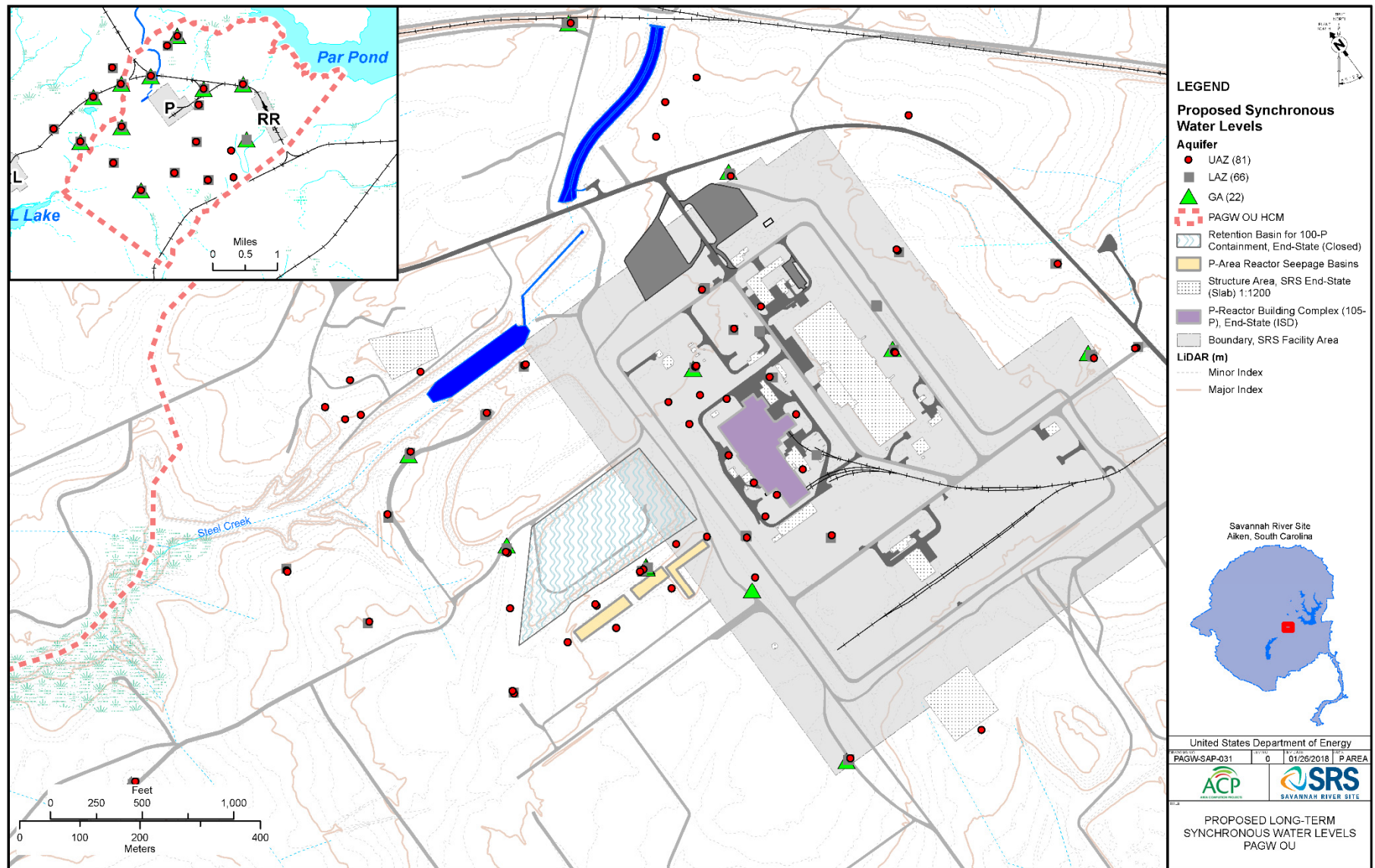


Figure 31. Proposed Long-Term Synchronous Water Levels, PAGW OU

**This page intentionally left blank.**

**TABLES**

**This page intentionally left blank.**

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 78 of 154

Table 1. Steel Creek Surface Water Data Summary (2014-2016)

Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
Radionuclides	TRITIUM	10028-17-8	pCi/mL	13 / 13	4.31	2320	20	MCL	11 / 13	SC-03	11/3/2014
Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	2 / 5	0.41	2.8	70	MCL	0 / 5	SC-03	11/17/2015
Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	7 / 13	0.59	28	5	MCL	3 / 13	SC-03	3/3/2015

**This page intentionally left blank.**

Table 2. Depth-Discrete CPT PCE, TCE, and Tritium Data

ACTIVITY	STATION NAME	AQUIFER	TOP OF SAMPLE INTERVAL (FT BLS)	BOTTOM OF SAMPLE INTERVAL (FT BLS)	PCE	TCE	TRITIUM
					MCL	5 ug/L	5 ug/L
EASTERN VOC UAZ/LAZ PLUME CPTs (SAP)	PRGW087	UAZ	56	58	<MDL	<MDL	1.29
			72	74	<MDL	<MDL	1.72
			85.5	87.5	58.1	0.45	1.56
			96	98	57.9	1.11	1.74
			107	108	48.9	0.8	2.13
		LAZ	124	126	3.42	1.32	1.28
			133	135	0.62	2.34	<MDL
			141	142	0.36	<MDL	1.03
			148	149	<MDL	<MDL	<MDL
	PRGW088	UAZ	43	45	0.41	<MDL	1.58
			54	56	1.03	1.41	1.26
			67	69	0.49	0.84	0.862
			86	88	6.86	4.09	4.55
		LAZ	102	104	<MDL	<MDL	<MDL
			112	114	<MDL	<MDL	<MDL
			137	139	<MDL	<MDL	<MDL
	PRGW089	UAZ	43	45	<MDL	<MDL	1.29
			59	61	<MDL	<MDL	0.799
			73	75	<MDL	<MDL	2.42
			81	83	1.83	2.02	3.7
		LAZ	103	105	0.84	1.38	1.85
			112	114	<MDL	<MDL	<MDL
			134	136	<MDL	<MDL	<MDL
	PRGW090	UAZ	147	149	<MDL	<MDL	<MDL
			63	65	1.81	3.64	4.06
			77	79	<MDL	<MDL	<MDL
			98	100	<MDL	<MDL	<MDL
		LAZ	108	110	0.53	<MDL	0.411
			122	124	<MDL	<MDL	<MDL
			129	130	1.46	4.83	4.22
	PRGW091	UAZ	139	140	1.65	7.68	5.92
			146	148	0.9	3.47	3.83
			53	55	0.55	0.64	1.04
63			65	0.76	0.76	2.49	
LAZ		73	75	0.46	<MDL	1.05	
		88	89	<MDL	0.94	<MDL	
		96	97	<MDL	1.02	0.861	
EASTERN VOC UAZ/LAZ PLUME CPTs (post-SAP)	PRGW110	UAZ	CPTs	48	<MDL	<MDL	1.63
			57	59	0.26	0.25	2.36
			75	77	6	3.5	2.75
		LAZ	108	110	<MDL	<MDL	<MDL
			127	129	<MDL	<MDL	<MDL
	PRGW111	UAZ	137	140	<MDL	<MDL	0.652
			53	55	<MDL	<MDL	0.864
			67	69	0.9	<MDL	1.58
		LAZ	82	84	2	<MDL	2.06
			116	118	<MDL	<MDL	1.69
			121.69	123.69	<MDL	<MDL	<MDL

\*Highlighted red text indicates MCL exceedance

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 81 of 154

Table 3. CPT Data Summary

Station	Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level
<i>2014 CPT SAP Locations</i>											
PRGW087	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	5 / 5	1.29	2.13	20	MCL	
PRGW087	UAZ	Volatiles	1,2-DICHLOROETHANE (EDC)	107-06-2	ug/L	1 / 5	0.49	0.49	5	MCL	
PRGW087	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	2 / 5	0.34	0.63	0.22	RSL	2 / 5
PRGW087	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	3 / 5	48.9	58.1	5	MCL	3 / 5
PRGW087	UAZ	Volatiles	TOLUENE	108-88-3	ug/L	3 / 5	0.32	0.38	1000	MCL	
PRGW087	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	3 / 5	0.45	1.11	5	MCL	
PRGW087	UAZ	Volatiles	TRICHLOROFLUOROMETHANE	75-69-4	ug/L	2 / 5	1.1	1.2	5200	RSL	
PRGW087	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	2 / 4	1.03	1.28	20	MCL	
PRGW087	LAZ	Volatiles	ACETONE	67-64-1	ug/L	1 / 4	2.65	2.65	14000	RSL	
PRGW087	LAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	1 / 4	0.35	0.35	0.22	RSL	1 / 4
PRGW087	LAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	3 / 4	0.36	3.42	5	MCL	
PRGW087	LAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 4	0.3	0.3	1000	MCL	
PRGW087	LAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	2 / 4	1.32	2.34	5	MCL	
PRGW088	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	4 / 4	0.862	4.55	20	MCL	
PRGW088	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	3 / 4	0.46	0.74	0.22	RSL	3 / 4
PRGW088	UAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	1 / 4	0.34	0.34	70	MCL	
PRGW088	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	4 / 4	0.39	6.86	5	MCL	1 / 4
PRGW088	UAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 4	0.42	0.42	1000	MCL	
PRGW088	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	3 / 4	0.84	4.09	5	MCL	
PRGW089	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	4 / 4	0.799	3.7	20	MCL	
PRGW089	UAZ	Volatiles	1,2,4-TRICHLOROBENZENE	120-82-1	ug/L	1 / 4	0.77	0.77	70	MCL	
PRGW089	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	1 / 4	0.33	0.33	0.22	RSL	1 / 4
PRGW089	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	1 / 4	1.83	1.83	5	MCL	
PRGW089	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	1 / 4	2.02	2.02	5	MCL	
PRGW089	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	1 / 4	1.85	1.85	20	MCL	
PRGW089	LAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	1 / 4	0.48	0.48	0.22	RSL	1 / 4
PRGW089	LAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	1 / 4	0.84	0.84	5	MCL	
PRGW089	LAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	1 / 4	1.38	1.38	5	MCL	
PRGW090	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	2 / 4	0.411	3.85	20	MCL	
PRGW090	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	3 / 4	0.52	1.98	0.22	RSL	3 / 4
PRGW090	UAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	1 / 4	0.84	0.84	70	MCL	
PRGW090	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	2 / 4	0.53	1.81	5	MCL	
PRGW090	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	1 / 4	3.64	3.64	5	MCL	
PRGW090	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	3 / 4	3.83	5.92	20	MCL	
PRGW090	LAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	3 / 4	1.56	1.8	0.22	RSL	3 / 4
PRGW090	LAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	3 / 4	0.86	2.27	70	MCL	
PRGW090	LAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	3 / 4	0.9	1.65	5	MCL	
PRGW090	LAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	3 / 4	3.47	7.68	5	MCL	1 / 4
PRGW091	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	3 / 4	0.814	2.49	20	MCL	
PRGW091	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	2 / 4	0.37	0.37	0.22	RSL	2 / 4
PRGW091	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	3 / 4	0.44	0.76	5	MCL	
PRGW091	UAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 4	1.07	1.07	1000	MCL	
PRGW091	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	4 / 4	0.64	0.94	5	MCL	
PRGW091	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	1 / 2	0.861	0.861	20	MCL	
PRGW091	LAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 2	2.52	2.52	1000	MCL	
PRGW091	LAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	1 / 2	1.02	1.02	5	MCL	

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 82 of 154

Table 3. CPT Data Summary (Continued)

Station	Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level
<i>post 2014 SAP CPT Locations</i>											
PRGW110	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	3 / 3	1.63	2.75	20	MCL	
PRGW110	UAZ	Volatiles	ACETONE	67-64-1	ug/L	3 / 3	0.76	1.1	14000	RSL	
PRGW110	UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	2 / 3	0.6	1	0.22	RSL	2 / 3
PRGW110	UAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	1 / 3	0.32	0.32	70	MCL	
PRGW110	UAZ	Volatiles	METHYLCYCLOHEXANE	108-87-2	ug/L	1 / 3	4	4			
PRGW110	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	2 / 3	0.26	6	5	MCL	1 / 3
PRGW110	UAZ	Volatiles	TOLUENE	108-88-3	ug/L	3 / 3	0.21	5.6	1000	MCL	
PRGW110	UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	2 / 3	0.25	3.5	5	MCL	
PRGW110	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	1 / 3	0.652	0.652	20	MCL	
PRGW110	LAZ	Volatiles	1,2-DICHLOROPROPANE	78-87-5	ug/L	1 / 3	1	1	5	MCL	
PRGW110	LAZ	Volatiles	2-HEXANONE	591-78-6	ug/L	1 / 3	1.5	1.5	38	RSL	
PRGW110	LAZ	Volatiles	ACETONE	67-64-1	ug/L	2 / 3	1.3	22	14000	RSL	
PRGW110	LAZ	Volatiles	ETHYLBENZENE	100-41-4	ug/L	1 / 3	0.21	0.21	700	MCL	
PRGW110	LAZ	Volatiles	METHYL ETHYL KETONE	78-93-3	ug/L	1 / 3	9.8	9.8	5600	RSL	
PRGW110	LAZ	Volatiles	TOLUENE	108-88-3	ug/L	3 / 3	0.8	21	1000	MCL	
PRGW111	UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	3 / 3	0.864	2.06	20	MCL	
PRGW111	UAZ	Volatiles	1,2,4-TRICHLOROBENZENE	120-82-1	ug/L	1 / 3	0.11	0.11	70	MCL	
PRGW111	UAZ	Volatiles	ACETONE	67-64-1	ug/L	3 / 3	0.52	0.84	14000	RSL	
PRGW111	UAZ	Volatiles	O-XYLENE	95-47-6	ug/L	1 / 3	1	1	190	RSL	
PRGW111	UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	2 / 3	0.9	2	5	MCL	
PRGW111	UAZ	Volatiles	TOLUENE	108-88-3	ug/L	2 / 3	0.34	2.4	1000	MCL	
PRGW111	LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	1 / 2	1.69	1.69	20	MCL	
PRGW111	LAZ	Volatiles	1,2-DIBROMOETHANE	106-93-4	ug/L	1 / 2	1	1	0.05	MCL	1 / 2
PRGW111	LAZ	Volatiles	ACETONE	67-64-1	ug/L	2 / 2	0.51	0.72	14000	RSL	
PRGW111	LAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	1 / 2	0.13	0.13	0.22	RSL	
PRGW111	LAZ	Volatiles	TOLUENE	108-88-3	ug/L	2 / 2	0.34	0.76	1000	MCL	

**Table 4. Gordon Aquifer Tritium Investigation Data Summary**

Station	Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level
<i>2014 SAP DPT Locations</i>											
PRGW100	GA	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	4 / 5	3.08	74.2	15	MCL	3 / 5
PRGW100	GA	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	5 / 5	2.87	43.5	50	MCL	
PRGW100	GA	Radionuclides	TRITIUM	10028-17-8	pCi/mL	1 / 5	8.9	8.9	20	MCL	
PRGW101	GA	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	5 / 5	1.7	256	15	MCL	3 / 5
PRGW101	GA	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	4 / 5	5.73	90.8	50	MCL	1 / 5
PRGW102	GA	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	5 / 5	0.891	178	15	MCL	2 / 5
PRGW102	GA	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	4 / 5	1.92	71.4	50	MCL	1 / 5

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 84 of 154

Table 5. Data Summary from the MicroCED Treatability Study Site (2014-2016)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
UAZ	CSIA	CIS-1,2-DICHLOROETHENE-AREA	CIS-12-DCE-A	Vs	1 / 3	67.574	67.574				P002U	06/05/14
UAZ	CSIA	CIS-1,2-DICHLOROETHENE-CARBON	CIS-12-DCE-C	0/00	1 / 3	-23.635	-23.635				P002U	06/05/14
UAZ	CSIA	TETRACHLOROETHENE-AREA	PCE-A	Vs	2 / 3	1	1.484				P002U	06/05/14
UAZ	CSIA	TETRACHLOROETHENE-CARBON	PCE-C	0/00	2 / 3	-27.831	-25.893				P002U	06/05/14
UAZ	CSIA	TRICHLOROETHENE-AREA	TCE-A	Vs	2 / 3	41.51	68.344				P002U	06/05/14
UAZ	CSIA	TRICHLOROETHENE-CARBON	TCE-C	0/00	2 / 3	-24.403	-24.365				PMW001DL	05/28/14
UAZ	Inorganics	CHLORIDE	16887-00-6	mg/L	16 / 16	2.05	53.1				PMW006DL	05/28/14
UAZ	Inorganics	NITRATE	14797-55-8	mg/L	12 / 16	0.0762	2.13	10	MCL		PMW001DL	05/28/14
UAZ	Inorganics	SULFATE	14808-79-8	mg/L	16 / 16	0.198	1.66				PMP003DL	06/03/14
UAZ	Inorganics	TOTAL PHOSPHATES (AS P)	7723-14-0	ug/L	7 / 16	17.8	23800	0.4	RSL	7 / 16	PMW006DL	05/28/14
UAZ	Metals	FERRIC IRON	FE3	mg/L	6 / 16	0.092	2.8				PMW004DL	05/27/14
UAZ	Metals	FEROUS IRON	FE2	mg/L	4 / 16	0.72	120				PMP002DL	05/29/14
UAZ	Metals	IRON	7439-89-6	mg/L	11 / 16	30.1	110000	14	RSL	11 / 16	PMP001DL	05/29/14
UAZ	Metals	MANGANESE	7439-96-5	ug/L	15 / 16	2.13	3130	430	RSL	1 / 16	PMP001DL	05/29/14
UAZ	Miscellaneous	CHEMICAL OXYGEN DEMAND	GIS-14-0	ug/L	13 / 16	12100	10700000				PMW006DL	05/28/14
UAZ	Miscellaneous	DISSOLVED ORGANIC CARBON	DOC	mg/L	80 / 80	0.434	5070				PMW006DL	05/28/14
UAZ	Miscellaneous	TOTAL INORGANIC CARBON	TIC	mg/L	16 / 16	7.47	1970				PMW004DL	05/27/14
UAZ	Miscellaneous	TOTAL ORGANIC CARBON	7440-44-0	mg/L	78 / 80	0.345	4980				PMW006DL	05/28/14
UAZ	Physical	CARBON DIOXIDE	124-38-9	mg/L	16 / 16	37	220				PMW005DL	05/27/14
UAZ	Physical	NITROGEN	7727-37-9	mg/L	16 / 16	3.1	24				P002L	06/05/14
UAZ	Physical	OXYGEN	7782-44-7	mg/L	16 / 16	0.73	11				P003L	06/04/14
UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	19 / 20	15.1	1540	20	MCL	17 / 20	PMP005DL	06/02/14
UAZ	Volatiles	BUTANE	BUTANE	ug/L	2 / 16	0.042	0.049				PMW006DL	05/28/14
UAZ	Volatiles	CHLOROETHENE (VINYL CHLORIDE)	75-01-4	ug/L	4 / 23	0.76	1.81	2	MCL		PMW006DL	05/28/14
UAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	16 / 23	0.88	6210	70	MCL	10 / 23	PMP002DL	05/29/14
UAZ	Volatiles	DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	ug/L	2 / 20	5.65	17	5	MCL	2 / 20	PMW001DL	05/28/14
UAZ	Volatiles	ETHANE	74-84-0	ug/L	15 / 16	0.0047	0.96				PMW005DL	05/27/14
UAZ	Volatiles	ETHYLENE	74-85-1	ug/L	16 / 16	0.0097	1.5				PMW005DL	05/27/14
UAZ	Volatiles	ISOBUTANE	75-28-5	ug/L	1 / 16	0.039	0.039				PMP002DL	05/29/14
UAZ	Volatiles	METHANE	74-82-8	ug/L	16 / 16	0.14	25000				PMW006DL	05/28/14
UAZ	Volatiles	PROPANE	74-98-6	ug/L	6 / 16	0.0054	0.075				PMP002DL	05/29/14
UAZ	Volatiles	PROPYLENE	PROPENE	ug/L	1 / 2	0.043	0.043				PMP002DL	05/29/14
UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	4 / 23	1	37.8	5	MCL	3 / 23	PMP007DL	06/02/14
UAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 20	0.41	0.41	1000	MCL		PMW004DL	05/27/14
UAZ	Volatiles	TRANS-1,2-DICHLOROETHYLENE	156-60-5	ug/L	1 / 20	2.7	2.7	100	MCL		PMP004DL	06/03/14
UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	20 / 23	0.4	13900	5	MCL	18 / 23	PMP006DL	06/02/14

**This page intentionally left blank.**

Table 6. CSIA Data Summary

ANALYTE NAME	RESULT UNITS	QUARTER	PMW001DL (Background Well)	PMW005DL (Injection Well)	P002U (Downgradient Well)
CHLOROETHENE (VINYL CHLORIDE)	ug/L	2007-3Q			0.9
		2009-1Q			<MDL
		2009-2Q	<MDL	5	2
		2010-1Q	<MDL	10	<MDL
		2011-1Q	<MDL	<MDL	<MDL
		2011-3Q	<MDL	3.76	0.45
		2014-2Q	<MDL	0.8	<MDL
CHLOROETHENE (VINYL CHLORIDE)-CARBON	0/00	2007-3Q			<MDL
		2009-2Q	<MDL	<MDL	<MDL
		2010-1Q	<MDL	<MDL	<MDL
		2011-1Q	<MDL	<MDL	<MDL
		2011-3Q	<MDL	<MDL	<MDL
		2014-2Q	<MDL	<MDL	<MDL
CIS-1,2-DICHLOROETHYLENE	ug/L	2007-3Q			500
		2009-1Q			358
		2009-2Q	<MDL	400	400
		2010-1Q	6	800	800
		2011-1Q	2.4	9.5	224
		2011-3Q	1.3	0.6	230
		2014-2Q	<MDL	<MDL	250
CIS-1,2-DICHLOROETHYLENE-CARBON	0/00	2007-3Q			-23.95
		2009-2Q	<MDL	-22.51	-22.47
		2010-1Q	<MDL	<MDL	-23.62
		2011-1Q	-24.38	-23.51	-24.58
		2011-3Q	<MDL	<MDL	-25.06
		2014-2Q	<MDL	<MDL	-23.635
TETRACHLOROETHYLENE (PCE)	ug/L	2007-3Q			5
		2009-1Q			7.03
		2009-2Q	<MDL	2	200
		2010-1Q	1.76	3	<MDL
		2011-1Q	1.5	<MDL	6
		2011-3Q	1.6	1.4	4.9
		2014-2Q	<MDL	<MDL	<MDL
TETRACHLOROETHYLENE-CARBON	0/00	2007-3Q			-21.31
		2009-2Q	<MDL	<MDL	<MDL
		2010-1Q	<MDL	<MDL	<MDL
		2011-1Q	<MDL	<MDL	-26.09
		2011-3Q	<MDL	<MDL	<MDL
		2014-2Q	-27.831	<MDL	-25.893
TRICHLOROETHYLENE (TCE)	ug/L	2007-3Q			10000
		2009-1Q			8540
		2009-2Q	3000	20000	9000
		2010-1Q	4000	40000	20000
		2011-1Q	1100	170	4700
		2011-3Q	920	1.4	4200
		2014-2Q	447	<MDL	7070
TRICHLOROETHYLENE-CARBON	0/00	2007-3Q			-25.26
		2009-2Q	-23.97	-24.85	-24.22
		2010-1Q	-24.29	-24.87	-25.1
		2011-1Q	-25.17	-24.37	-23.81
		2011-3Q	-25.26		-26.99
		2014-2Q	-24.365		-24.403

MDL: method detection limit

0/00: part per thousand

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 87 of 154

Table 7. Microbial Analyses Data Summary

	Lab Name	Sample Name	Sample Date	Sample Matrix	Project Identifier	Analysis Method	Parameter <sup>†</sup>	Result*	Result Qualifier	Units	Detection Limit	Report Limit
BACKGROUND WELL	MI	PMW001DL	5/12/2014	Bio-Trap	0511E-1	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMW001DL	5/12/2014	Bio-Trap	0511E-1	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMW001DL	5/12/2014	Bio-Trap	0511E-1	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMW001DL	5/12/2014	Bio-Trap	0511E-1	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
INJECTION WELLS	MI	PMW002DL	5/12/2014	Bio-Trap	0511E-2	CENSUS	DHC	2.36E+03		cells/bead	5.00E+00	2.50E+01
	MI	PMW002DL	5/12/2014	Bio-Trap	0511E-2	CENSUS	BVC	1.76E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW002DL	5/12/2014	Bio-Trap	0511E-2	CENSUS	TCE	8.29E+01		cells/bead	5.00E+00	2.50E+01
	MI	PMW002DL	5/12/2014	Bio-Trap	0511E-2	CENSUS	VCR	6.50E+00	J	cells/bead	5.00E+00	2.50E+01
	MI	PMW003DL	5/12/2014	Bio-Trap	0511E-5	CENSUS	DHC	3.36E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW003DL	5/12/2014	Bio-Trap	0511E-5	CENSUS	BVC	9.90E+00	J	cells/bead	5.00E+00	2.50E+01
	MI	PMW003DL	5/12/2014	Bio-Trap	0511E-5	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMW003DL	5/12/2014	Bio-Trap	0511E-5	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMW004DL	5/12/2014	Bio-Trap	0511E-13	CENSUS	DHC	6.43E+03		cells/bead	5.00E+00	2.50E+01
	MI	PMW004DL	5/12/2014	Bio-Trap	0511E-13	CENSUS	BVC	4.85E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW004DL	5/12/2014	Bio-Trap	0511E-13	CENSUS	TCE	1.19E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW004DL	5/12/2014	Bio-Trap	0511E-13	CENSUS	VCR	1.77E+01	J	cells/bead	5.00E+00	2.50E+01
	MI	PMW005DL	5/12/2014	Bio-Trap	0511E-7	CENSUS	DHC	2.20E+04		cells/bead	5.00E+00	2.50E+01
	MI	PMW005DL	5/12/2014	Bio-Trap	0511E-7	CENSUS	BVC	1.90E+03		cells/bead	5.00E+00	2.50E+01
	MI	PMW005DL	5/12/2014	Bio-Trap	0511E-7	CENSUS	TCE	2.31E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW005DL	5/12/2014	Bio-Trap	0511E-7	CENSUS	VCR	1.52E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW006DL	5/12/2014	Bio-Trap	0511E-8	CENSUS	DHC	8.78E+04		cells/bead	5.00E+00	2.50E+01
	MI	PMW006DL	5/12/2014	Bio-Trap	0511E-8	CENSUS	BVC	9.12E+03		cells/bead	5.00E+00	2.50E+01
	MI	PMW006DL	5/12/2014	Bio-Trap	0511E-8	CENSUS	TCE	5.84E+02		cells/bead	5.00E+00	2.50E+01
	MI	PMW006DL	5/12/2014	Bio-Trap	0511E-8	CENSUS	VCR	6.55E+02		cells/bead	5.00E+00	2.50E+01
PIEZOMETERS	MI	PMP001DL	5/12/2014	Bio-Trap	0511E-3	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP001DL	5/12/2014	Bio-Trap	0511E-3	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP001DL	5/12/2014	Bio-Trap	0511E-3	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP001DL	5/12/2014	Bio-Trap	0511E-3	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP002DL	5/12/2014	Bio-Trap	0511E-4	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP002DL	5/12/2014	Bio-Trap	0511E-4	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP002DL	5/12/2014	Bio-Trap	0511E-4	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP002DL	5/12/2014	Bio-Trap	0511E-4	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP003DL	5/12/2014	Bio-Trap	0511E-6	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP003DL	5/12/2014	Bio-Trap	0511E-6	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP003DL	5/12/2014	Bio-Trap	0511E-6	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP003DL	5/12/2014	Bio-Trap	0511E-6	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP004DL	5/12/2014	Bio-Trap	0511E-12	CENSUS	DHC	4.25E+01		cells/bead	5.00E+00	2.50E+01
	MI	PMP004DL	5/12/2014	Bio-Trap	0511E-12	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP004DL	5/12/2014	Bio-Trap	0511E-12	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP004DL	5/12/2014	Bio-Trap	0511E-12	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP006DL	5/12/2014	Bio-Trap	0511E-10	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP006DL	5/12/2014	Bio-Trap	0511E-10	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP006DL	5/12/2014	Bio-Trap	0511E-10	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
	MI	PMP006DL	5/12/2014	Bio-Trap	0511E-10	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
MI	PMP007DL	5/12/2014	Bio-Trap	0511E-9	CENSUS	DHC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01	
MI	PMP007DL	5/12/2014	Bio-Trap	0511E-9	CENSUS	BVC	2.50E+01	U	cells/bead	5.00E+00	2.50E+01	
MI	PMP007DL	5/12/2014	Bio-Trap	0511E-9	CENSUS	TCE	2.50E+01	U	cells/bead	5.00E+00	2.50E+01	
MI	PMP007DL	5/12/2014	Bio-Trap	0511E-9	CENSUS	VCR	2.50E+01	U	cells/bead	5.00E+00	2.50E+01	

<sup>†</sup>DHC: *dehalococoides* | TCE: tceA Reductase | BVC: BAV1 Vinyl Chloride Reductase | VCR: Vinyl Chloride Reductase

\*NOTE: 1)  $\geq 10^4$  cells/mL indicate useful biodegradation rates to support reductive dechlorination

2)  $10^3$  to  $< 10^4$  cells/mL indicate reductive dechlorination may be occurring; however, conditions may be limiting

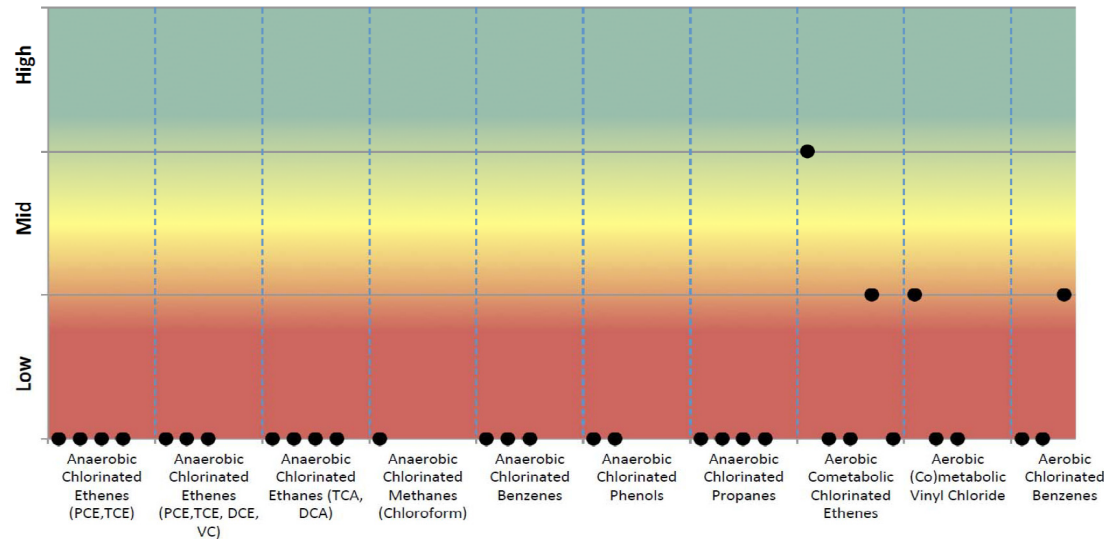
3)  $< 10^3$  cells/mL indicate complete reductive dechlorination is unlikely to occur

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

Table 8. QuantArray® Data Summary (PMP005DL)

Lab Name	Sample Name	Sample Date	Sample Matrix	Project Identifier	Analysis Method	Parameter	Parameter Name	Biodegradation Pathway(s)	Result	Result Qualifier	Units	Detection Limit	Report Limit
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	1,2 DCP	1,2-Dichloropropane Reductase	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	ANA	Anaeromyxobacter spp.	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	APS	Sulfate Reducing Bacteria	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	BVC	BAV1 Vinyl Chloride Reductase	Reductive Dechlorination	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DECO	Dehalobium chloroaceraia	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DHbt	Dehalobacter spp.	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DHC	Dehalococcoides spp.	Reductive Dechlorination	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DHG	Dehalogenimonas spp.	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DSB	Desulfobacterium spp.	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	DSM	Desulfuramonas spp.	Reductive Dechlorination	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	EBAC	Total Eubacteria	Aerobic (Co)Metabolic	5.16E+05		cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	EtnC	Ethene Monooxygenase	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	MGN	Methogens	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	PHE	Phenol Hydroxylase	Aerobic (Co)Metabolic	2.60E+03		cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	PMMO	Particulate Methane Monooxygenase	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	RMO	Toluene Monooxygenase	Aerobic (Co)Metabolic	2.09E+03		cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	TCBO	Trichlorobenzene Dioxygenase	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	TCE	tceA Reductase	Reductive Dechlorination	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	TOD	Toluene Dioxygenase	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	VCR	Vinyl Chloride Reductase	Reductive Dechlorination	2.50E+01	U	cells/bead	5.00E+00	2.50E+01
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	SMMO	Soluble Methane Monooxygenase	Aerobic (Co)Metabolic	3.76E+05		cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	EtnE	Epoxyalkane transferase	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02
MI	PMP005DL	5/12/2014	Bio-Trap	051LE-11	QUANTARRAY	RDEG	Toluene Monooxygenase 2	Aerobic (Co)Metabolic	2.50E+02	U	cells/bead	5.00E+00	2.50E+02

Microbial Populations PMP005DL



Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 89 of 154

Table 9. Summary of Detected Constituents in UAZ (2014-2016)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
UAZ	Inorganics	CYANIDE	57-12-5	ug/L	9 / 53	3	12	200	MCL		PSB003DL	3/4/2015
UAZ	Inorganics	SULFATE	14808-79-8	mg/L	5 / 5	0.431	990				PAO001DU	3/9/2015
UAZ	Metals	ALUMINIUM	7429-90-5	ug/L	56 / 59	19	39000	20000	RSL	3 / 59	PAO001DU	8/27/2014
UAZ	Metals	ANTIMONY	7440-36-0	ug/L	1 / 59	4.05	4.05	6	MCL		PAO002DL	11/14/2016
UAZ	Metals	ARSENIC	7440-38-2	ug/L	9 / 59	1.3	66	10	MCL	3 / 59	PAO001DU	11/14/2016
UAZ	Metals	BARIUM	7440-39-3	ug/L	59 / 59	3.8	190	2000	MCL		PGW023DU	8/19/2014
UAZ	Metals	BERYLLIUM	7440-41-7	ug/L	8 / 59	0.36	2.7	4	MCL		PAO001DU	8/27/2014
UAZ	Metals	BORON	7440-42-8	ug/L	23 / 44	12	140	4000	RSL		PSB 1A	8/25/2014
UAZ	Metals	CADMIUM	7440-43-9	ug/L	5 / 59	0.1	0.13	5	MCL		PGW026DL	9/23/2014
UAZ	Metals	CALCIUM	7440-70-2	ug/L	59 / 59	150	62000				PRB001DU	8/27/2014
UAZ	Metals	CHROMIUM	7440-47-3	ug/L	37 / 59	1.1	460	100	MCL	3 / 59	PAO001DU	8/27/2014
UAZ	Metals	COBALT	7440-48-4	ug/L	55 / 59	0.23	22	6	RSL	2 / 59	PDB 5	8/25/2014
UAZ	Metals	COPPER	7440-50-8	ug/L	48 / 59	0.49	62	1300	MCL		PSB 3A	8/25/2014
UAZ	Metals	IRON	7439-89-6	mg/L	45 / 59	0.0382	70000	14	RSL	42 / 59	PRB004DU	8/27/2014
UAZ	Metals	LEAD	7439-92-1	ug/L	56 / 61	0.18	198	15	MCL	4 / 61	PGW024 C	11/15/2016
UAZ	Metals	LITHIUM	7439-93-2	ug/L	34 / 44	0.87	18	40	RSL		PGW027DU	8/27/2014
UAZ	Metals	MAGNESIUM	7439-95-4	ug/L	59 / 59	160	5500				PRB002DU	9/10/2014
UAZ	Metals	MANGANESE	7439-96-5	ug/L	58 / 61	1.6	2000	430	RSL	4 / 61	PRB002DU	9/10/2014
UAZ	Metals	MERCURY	7439-97-6	ug/L	8 / 59	0.13	1.7	2	MCL		PAO001DU	8/27/2014
UAZ	Metals	MOLYBDENUM	7439-98-7	ug/L	6 / 44	1.1	2.5	100	RSL		PGW016DU	8/18/2014
UAZ	Metals	NICKEL	7440-02-0	ug/L	50 / 59	0.96	18	390	RSL		PAO001DU	8/27/2014
UAZ	Metals	POTASSIUM	7440-09-7	ug/L	59 / 59	55	5400				PAO002DU	8/27/2014
UAZ	Metals	SELENIUM	7782-49-2	ug/L	12 / 59	1.6	280	50	MCL	2 / 59	PAO001DU	8/27/2014
UAZ	Metals	SODIUM	7440-23-5	ug/L	59 / 59	1800	800000				PAO001DU	8/27/2014
UAZ	Metals	STRONTIUM	7440-24-6	ug/L	37 / 44	5.6	160	12000	RSL		PGW024 C	9/3/2014
UAZ	Metals	THALLIUM	7440-28-0	ug/L	2 / 59	0.58	1.7	2	MCL		PSB 6A	8/25/2014
UAZ	Metals	THORIUM	TH	ug/L	3 / 44	0.86	8.9				PAO001DU	8/27/2014
UAZ	Metals	TIN	7440-31-5	ug/L	10 / 44	1.9	5.8	12000	RSL		PSB 6A	8/25/2014
UAZ	Metals	TITANIUM	7440-32-6	ug/L	12 / 44	2.2	30				PGW024 C	9/3/2014
UAZ	Metals	URANIUM	7440-61-1	ug/L	5 / 45	0.6	96.9	30	MCL	2 / 45	PAO001DU	11/14/2016
UAZ	Metals	VANADIUM	7440-62-2	ug/L	8 / 59	2.7	10	86	RSL		PSB003DL	3/9/2015
UAZ	Metals	ZINC	7440-66-6	ug/L	30 / 59	8.8	1000	6000	RSL		PAO003DU	8/27/2014

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 90 of 154

Table 9. Summary of Detected Constituents in UAZ (2014-2016) (Continued)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
UAZ	Radionuclides	AMERICIUM-243	14993-75-0	pCi/L	2 / 3	0.538	2.58	15	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	BISMUTH-214	14733-03-0	pCi/L	2 / 2	37.5	86	15	MCL	2 / 2	PAO002DU	3/9/2015
UAZ	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	33 / 59	1.38	50.7	15	MCL	4 / 59	PAO001DU	3/9/2015
UAZ	Radionuclides	IODINE-129	15046-84-1	pCi/L	2 / 60	1.29	7.19	1	MCL	2 / 60	PGW020DU	9/10/2014
UAZ	Radionuclides	LEAD-214	15067-28-4	pCi/L	3 / 3	52.3	163				PAO001DU	12/15/2014
UAZ	Radionuclides	NICKEL-63	13981-37-8	pCi/L	2 / 3	2.6	2.67	50	MCL		PAO002DU	3/9/2015
UAZ	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	43 / 67	1.13	76.5	50	MCL	1 / 67	PAO001DU	8/27/2014
UAZ	Radionuclides	PLUTONIUM-238	13981-16-3	pCi/L	2 / 3	0.0482	0.0872	15	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	PLUTONIUM-239/240	PU3940	pCi/L	2 / 3	0.0449	0.0526				PAO002DU	3/9/2015
UAZ	Radionuclides	PLUTONIUM-242	13982-10-0	pCi/L	1 / 3	0.0538	0.0538	15	MCL		PAO001DU	12/15/2014
UAZ	Radionuclides	RADIUM-226	13982-63-3	pCi/L	4 / 4	0.73	1.7	5	MCL		PAO002DU	3/9/2015
UAZ	Radionuclides	RADIUM-228	15262-20-1	pCi/L	3 / 4	0.438	1.37	5	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	STRONTIUM-90	10098-97-2	pCi/L	12 / 62	0.246	14.1	8	MCL	3 / 62	PSB 1A	11/17/2016
UAZ	Radionuclides	THORIUM-228	14274-82-9	pCi/L	2 / 3	0.246	0.526	15	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	THORIUM-230	14269-63-7	pCi/L	3 / 3	0.161	2.31	15	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	THORIUM-232	7440-29-1	pCi/L	2 / 3	0.292	0.539	15	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	TRITIUM	10028-17-8	pCi/mL	100 / 104	0.621	7790	20	MCL	40 / 104	PSB011DL	8/19/2014
UAZ	Radionuclides	URANIUM-233/234	U3334	pCi/L	3 / 4	9.45	15.3				PAO001DU	3/9/2015
UAZ	Radionuclides	URANIUM-235	15117-96-1	pCi/L	2 / 4	0.564	0.999	54.76236525	MCL		PAO001DU	3/9/2015
UAZ	Radionuclides	URANIUM-238	U238	pCi/L	3 / 4	11	20.2	10.07114255	MCL	3 / 4	PAO001DU	3/9/2015
UAZ	Semi-Volatiles	1,4-DIOXANE	123-91-1	ug/L	1 / 110	5.9	5.9	0.46	RSL	1 / 110	PGW018 C	3/19/2015
UAZ	Semi-Volatiles	DIETHYL PHTHALATE	84-66-2	ug/L	1 / 15	7.7	7.7	15000	RSL		PGW029DL	8/27/2014
UAZ	Volatiles	1,1,2-TRICHLOROETHANE	79-00-5	ug/L	1 / 63	0.89	0.89	5	MCL		PGW026DL	11/15/2016
UAZ	Volatiles	1,1-DICHLOROETHYLENE	75-35-4	ug/L	2 / 63	0.12	0.71	7	MCL		PGW026DL	11/15/2016
UAZ	Volatiles	1,2-DICHLOROBENZENE	95-50-1	ug/L	3 / 63	0.17	0.4	600	MCL		PGW020DU	9/10/2014
UAZ	Volatiles	1,2-DICHLOROETHANE (EDC)	107-06-2	ug/L	1 / 63	0.28	0.28	5	MCL		PGW034DL	12/15/2014
UAZ	Volatiles	ACETONE	67-64-1	ug/L	5 / 63	5.9	35	14000	RSL		PSB003DL	9/9/2014
UAZ	Volatiles	CARBON DISULFIDE	75-15-0	ug/L	3 / 63	0.13	7.4	810	RSL		PAO002DL	8/27/2014
UAZ	Volatiles	CARBON TETRACHLORIDE	56-23-5	ug/L	1 / 63	0.41	0.41	5	MCL		PGW026DL	11/15/2016
UAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	20 / 63	0.12	6.9	0.22	RSL	16 / 63	PGW023 C	8/18/2014
UAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	20 / 63	0.2	4740	70	MCL	6 / 63	PMP002DL	11/21/2016
UAZ	Volatiles	DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	ug/L	4 / 63	0.28	14	5	MCL	1 / 63	PGW026DL	9/23/2014
UAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	34 / 100	0.25	260	5	MCL	15 / 100	PGW025 C	9/24/2014
UAZ	Volatiles	TOLUENE	108-88-3	ug/L	1 / 63	0.13	0.13	1000	MCL		PGW019DU	8/27/2014
UAZ	Volatiles	TRANS-1,2-DICHLOROETHYLENE	156-60-5	ug/L	5 / 63	0.43	13	100	MCL		PGW026DL	9/23/2014
UAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	45 / 103	0.25	7440	5	MCL	20 / 103	PGW026DL	11/15/2016
UAZ	Volatiles	TRICHLOROFLUOROMETHANE	75-69-4	ug/L	3 / 63	0.35	0.59	5200	RSL		PGW034DL	12/15/2014

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

Table 10. Summary of Detected Constituents in LAZ (2014-2016)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
LAZ	Inorganics	CYANIDE	57-12-5	ug/L	7 / 49	2.9	19	200	MCL		PSB002C	3/9/2015
LAZ	Metals	ALUMINUM	7429-90-5	ug/L	44 / 49	14	2100	20000	RSL		PGW017 B	8/18/2014
LAZ	Metals	ANTIMONY	7440-36-0	ug/L	1 / 49	1.7	1.7	6	MCL		PGW026C	9/23/2014
LAZ	Metals	ARSENIC	7440-38-2	ug/L	6 / 49	1.3	1.8	10	MCL		PGW029C	2/24/2015
LAZ	Metals	BARIUM	7440-39-3	ug/L	49 / 49	3.4	150	2000	MCL		PGW014 B	8/18/2014
LAZ	Metals	BERYLLIUM	7440-41-7	ug/L	14 / 49	0.37	1.1	4	MCL		PGW029C	9/24/2014
LAZ	Metals	BORON	7440-42-8	ug/L	23 / 32	12	130	4000	RSL		PSB002C	8/18/2014
LAZ	Metals	CADMIUM	7440-43-9	ug/L	17 / 49	0.11	1.2	5	MCL		PGW029C	9/24/2014
LAZ	Metals	CALCIUM	7440-70-2	ug/L	49 / 49	260	38000				PGW016 B	8/25/2014
LAZ	Metals	CHROMIUM	7440-47-3	ug/L	28 / 49	1	8	100	MCL		PGW030BL	8/27/2014
LAZ	Metals	COBALT	7440-48-4	ug/L	45 / 49	0.25	31	6	RSL	2 / 49	PGW029C	9/24/2014
LAZ	Metals	COPPER	7440-50-8	ug/L	20 / 49	0.63	120	1300	MCL		PGW020 C	8/27/2014
LAZ	Metals	IRON	7439-89-6	mg/L	27 / 49	22	1200	14	RSL	27 / 49	PRB005C	9/3/2014
LAZ	Metals	LEAD	7439-92-1	ug/L	37 / 50	0.17	370	15	MCL	1 / 50	PGW020 C	8/27/2014
LAZ	Metals	LITHIUM	7439-93-2	ug/L	29 / 32	0.93	56	40	RSL	2 / 32	PSB002C	8/18/2014
LAZ	Metals	MAGNESIUM	7439-95-4	ug/L	49 / 49	69	1600				PGW016 B	8/25/2014
LAZ	Metals	MANGANESE	7439-96-5	ug/L	50 / 50	0.72	500	430	RSL	1 / 50	PGW029C	9/24/2014
LAZ	Metals	MERCURY	7439-97-6	ug/L	6 / 49	0.13	0.88	2	MCL		PGW014 C	8/20/2014
LAZ	Metals	MOLYBDENUM	7439-98-7	ug/L	3 / 32	1.1	2	100	RSL		PGW022 B	8/20/2014
LAZ	Metals	NICKEL	7440-02-0	ug/L	41 / 49	0.4	15	390	RSL		PGW029C	9/24/2014
LAZ	Metals	POTASSIUM	7440-09-7	ug/L	49 / 49	180	8900				PSB002C	8/18/2014
LAZ	Metals	SELENIUM	7782-49-2	ug/L	7 / 49	1.9	2.8	50	MCL		PGW019 B	8/27/2014
LAZ	Metals	SILVER	7440-22-4	ug/L	1 / 49	0.89	0.89	94	RSL		PGW020 C	8/27/2014
LAZ	Metals	SODIUM	7440-23-5	ug/L	49 / 49	1200	24000				PGW022 B	8/20/2014
LAZ	Metals	STRONTIUM	7440-24-6	ug/L	26 / 32	5.8	330	12000	RSL		PGW016 B	8/25/2014
LAZ	Metals	THALLIUM	7440-28-0	ug/L	8 / 49	0.57	1.9	2	MCL		PGW031C	9/22/2014
LAZ	Metals	THORIUM	TH	ug/L	2 / 32	0.6	2.4				PGW017 B	8/18/2014
LAZ	Metals	TIN	7440-31-5	ug/L	13 / 32	1.1	8.2	12000	RSL		PGW031B	8/27/2014
LAZ	Metals	TITANIUM	7440-32-6	ug/L	8 / 32	2.6	11				PGW017 B	8/18/2014
LAZ	Metals	URANIUM	7440-61-1	ug/L	7 / 32	0.23	0.6	30	MCL		PGW017 B	8/18/2014
LAZ	Metals	VANADIUM	7440-62-2	ug/L	2 / 49	2.8	8.8	86	RSL		PGW022 B	8/20/2014
LAZ	Metals	ZINC	7440-66-6	ug/L	20 / 49	8.3	25	6000	RSL		PGW019 B	8/27/2014

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 92 of 154

Table 10. Summary of Detected Constituents in LAZ (2014-2016) (Continued)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
LAZ	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	19 / 49	1.58	6.7	15	MCL		PGW029C	9/24/2014
LAZ	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	39 / 49	0.981	47.7	50	MCL		PGW021 B	8/27/2014
LAZ	Radionuclides	STRONTIUM-90	10098-97-2	pCi/L	2 / 49	0.323	1.49	8	MCL		PGW021 B	8/27/2014
LAZ	Radionuclides	TRITIUM	10028-17-8	pCi/ml	68 / 87	0.401	16400	20	MCL	35 / 87	PSB002C	8/18/2014
LAZ	Semi-Volatiles	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	117-81-7	ug/L	3 / 37	6	6.9	6	MCL	3 / 37	PGW026B	9/23/2014
LAZ	Volatiles	1,1,2-TRICHLOROETHANE	79-00-5	ug/L	6 / 61	0.43	0.98	5	MCL		PRB005C	3/4/2015
LAZ	Volatiles	1,1-DICHLOROETHYLENE	75-35-4	ug/L	3 / 61	0.34	0.38	7	MCL		PGW026C	11/15/2016
LAZ	Volatiles	1,2,4-TRICHLOROBENZENE	120-82-1	ug/L	1 / 61	0.62	0.62	70	MCL		PGW020 C	8/27/2014
LAZ	Volatiles	1,2-DICHLOROBENZENE	95-50-1	ug/L	2 / 61	0.52	1.2	600	MCL		PGW020 C	8/27/2014
LAZ	Volatiles	ACETONE	67-64-1	ug/L	1 / 61	8.2	8.2	14000	RSL		PGW014 C	8/20/2014
LAZ	Volatiles	CARBON DISULFIDE	75-15-0	ug/L	2 / 61	0.46	0.55	810	RSL		PRB003C	3/10/2015
LAZ	Volatiles	CARBON TETRACHLORIDE	56-23-5	ug/L	2 / 61	0.15	0.4	5	MCL		PGW026C	11/15/2016
LAZ	Volatiles	CHLOROETHENE (VINYL CHLORIDE)	75-01-4	ug/L	1 / 61	0.1	0.1	2	MCL		PRB005C	9/3/2014
LAZ	Volatiles	CHLOROFORM	67-66-3	ug/L	33 / 61	0.12	9.4	0.22	RSL	30 / 61	PGW025 B	9/22/2014
LAZ	Volatiles	CHLOROMETHANE (METHYL CHLORIDE)	74-87-3	ug/L	1 / 61	0.24	0.24	190	RSL		PRB003C	9/3/2014
LAZ	Volatiles	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/L	30 / 61	0.14	220	70	MCL	9 / 61	PGW026C	9/23/2014
LAZ	Volatiles	DICHLORODIFLUOROMETHANE	75-71-8	ug/L	1 / 61	0.38	0.38	200	RSL		PSB002B	3/9/2015
LAZ	Volatiles	DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	ug/L	9 / 61	0.29	21	5	MCL	1 / 61	PGW026C	9/23/2014
LAZ	Volatiles	METHYL ACETATE	79-20-9	ug/L	1 / 61	0.68	0.68	20000	RSL		PGW031C	3/10/2015
LAZ	Volatiles	TETRACHLOROETHYLENE (PCE)	127-18-4	ug/L	19 / 80	0.18	10	5	MCL	3 / 80	PGW029C	2/24/2015
LAZ	Volatiles	TOLUENE	108-88-3	ug/L	5 / 61	0.11	2.7	1000	MCL		PRB003C	3/10/2015
LAZ	Volatiles	TRANS-1,2-DICHLOROETHYLENE	156-60-5	ug/L	17 / 61	0.14	6.3	100	MCL		PGW026C	2/23/2015
LAZ	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	41 / 80	0.31	7710	5	MCL	30 / 80	PGW025 B	11/15/2016

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

Table 11. Summary of Detected Constituents in GAU (2014-2016)

Aquifer	Analyte Group	Analyte Name	CAS Number	Units	Frequency of Detection	Minimum Detected Result	Maximum Detected Result	Screening Level	Screening Level Source	Above Screening Level	Location of Maximum	Date of Maximum Detection
GA	Inorganics	CYANIDE	57-12-5	ug/L	1 / 12	4	4	200	MCL		PGW014 A	8/18/2014
GA	Metals	ALUMINIUM	7429-90-5	ug/L	11 / 12	17	2400	20000	RSL		PGW033A	3/2/2015
GA	Metals	ARSENIC	7440-38-2	ug/L	5 / 12	1.2	5.2	10	MCL		PGW025 A	9/10/2014
GA	Metals	BARIUM	7440-39-3	ug/L	12 / 12	7.4	220	2000	MCL		PGW033A	3/2/2015
GA	Metals	BERYLLIUM	7440-41-7	ug/L	3 / 12	0.35	0.42	4	MCL		PGW033A	12/17/2014
GA	Metals	BORON	7440-42-8	ug/L	2 / 7	51	60	4000	RSL		PSB002AA	8/18/2014
GA	Metals	CADMIUM	7440-43-9	ug/L	5 / 12	0.11	0.18	5	MCL		PSB002AL	9/3/2014
GA	Metals	CALCIUM	7440-70-2	ug/L	12 / 12	2300	39000				PGW033A	12/17/2014
GA	Metals	CHROMIUM	7440-47-3	ug/L	12 / 12	1.1	10	100	MCL		PSB002AL	3/4/2015
GA	Metals	COBALT	7440-48-4	ug/L	9 / 12	0.28	3.8	6	RSL		PSB002AA	8/18/2014
GA	Metals	COPPER	7440-50-8	ug/L	9 / 12	0.46	15	1300	MCL		PGW014 A	8/18/2014
GA	Metals	IRON	7439-89-6	mg/L	11 / 12	24	1200	14	RSL	11 / 12	PGW033A	3/2/2015
GA	Metals	LEAD	7439-92-1	ug/L	9 / 12	0.22	3.7	15	MCL		PGW033A	3/2/2015
GA	Metals	LITHIUM	7439-93-2	ug/L	4 / 7	1.8	21	40	RSL		PSB002AA	8/18/2014
GA	Metals	MAGNESIUM	7439-95-4	ug/L	12 / 12	170	1400				PSB002AL	9/3/2014
GA	Metals	MANGANESE	7439-96-5	ug/L	11 / 12	2.4	96	430	RSL		PSB002AL	9/3/2014
GA	Metals	MOLYBDENUM	7439-98-7	ug/L	3 / 7	1	3.1	100	RSL		PSB002AL	9/3/2014
GA	Metals	NICKEL	7440-02-0	ug/L	11 / 12	0.43	16	390	RSL		PGW025 A	9/10/2014
GA	Metals	POTASSIUM	7440-09-7	ug/L	12 / 12	590	3600				PSB002AA	8/18/2014
GA	Metals	SODIUM	7440-23-5	ug/L	12 / 12	1700	7600				PGW033A	12/17/2014
GA	Metals	STRONTIUM	7440-24-6	ug/L	7 / 7	6	170	12000	RSL		PSB011A	9/9/2014
GA	Metals	THORIUM	TH	ug/L	1 / 7	0.68	0.68				PSB002AA	8/18/2014
GA	Metals	TIN	7440-31-5	ug/L	2 / 7	2.5	3.2	12000	RSL		PSB011A	9/9/2014
GA	Metals	TITANIUM	7440-32-6	ug/L	3 / 7	3.9	4.4				PSB011A	9/9/2014
GA	Metals	URANIUM	7440-61-1	ug/L	3 / 7	0.25	0.48	30	MCL		PSB002AA	8/18/2014
GA	Metals	VANADIUM	7440-62-2	ug/L	3 / 12	3.1	4.2	86	RSL		PGW014 A	8/18/2014
GA	Metals	ZINC	7440-66-6	ug/L	6 / 12	8.7	14	6000	RSL		PGW024 A	9/3/2014
GA	Pesticides/Herbicides	ALPHA-BENZENE HEXACHLORIDE	319-84-6	ug/L	1 / 9	0.034	0.034	0.0072	RSL	1 / 9	PGW033A	12/17/2014
GA	Pesticides/Herbicides	GAMMA-CHLORDANE	5103-74-2	ug/L	1 / 9	0.05	0.05				PGW033A	12/17/2014
GA	Radionuclides	GROSS ALPHA	12587-46-1	pCi/L	3 / 12	3.34	13.4	15	MCL		PGW033A	3/2/2015
GA	Radionuclides	NONVOLATILE BETA	12587-47-2	pCi/L	9 / 12	1.51	4.6	50	MCL		PGW033A	3/2/2015
GA	Radionuclides	STRONTIUM-90	10098-97-2	pCi/L	1 / 12	1.64	1.64	8	MCL		PSB002AL	9/3/2014
GA	Radionuclides	TRITIUM	10028-17-8	pCi/mL	9 / 20	0.473	5860	20	MCL	3 / 20	PSB002AA	3/4/2015
GA	Volatiles	1,2-DICHLOROBENZENE	95-50-1	ug/L	1 / 13	0.18	0.18	600	MCL		PSB002AA	3/4/2015
GA	Volatiles	CHLOROFORM	67-66-3	ug/L	2 / 13	0.5	0.56	0.22	RSL	2 / 13	PSB002AA	3/4/2015
GA	Volatiles	DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	ug/L	1 / 13	7.1	7.1	5	MCL	1 / 13	PGW033A	12/17/2014
GA	Volatiles	TRICHLOROETHYLENE (TCE)	79-01-6	ug/L	4 / 16	0.26	0.32	5	MCL		PSB002AA	2/24/2015

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 94 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Surface Water Sample Locations</b>											
1	Steel Creek	SC-02	01	existing surface loc		REG	Surface Water	Grab	1, 2	445206.639	3676568.604
2	Steel Creek	SC002A	02	new surface loc		REG	Surface Water	Grab	1, 2	445163.1619	3676527.849
3	Steel Creek	SC-03	03	existing surface loc		REG	Surface Water	Grab	1, 2	445116	3676471
4	Steel Creek	SC003A	04	new surface loc		REG	Surface Water	Grab	1, 2	445030.2085	3676443.844
5	Steel Creek	SC003B	05	new surface loc		REG	Surface Water	Grab	1, 2	444879.3957	3676416.062
6	Steel Creek	SC003B	05SPL	new surface loc		SPL	Surface Water	Grab	1, 2	444879.3957	3676416.062
7	Steel Creek	SC003C	06	new surface loc		REG	Surface Water	Grab	1, 2	444841.0311	3676380.343
8	Steel Creek	SC003D	07	new surface loc		REG	Surface Water	Grab	1, 2	444792.7445	3676349.916
9	Steel Creek	SC003E	08	new surface loc		REG	Surface Water	Grab	1, 2	444784.1455	3676345.286
10	Steel Creek	CBY001	09	new surface loc		REG	Surface Water	Grab	1, 2	444839.0467	3676453.765
11	Steel Creek	CBY002	10	new surface loc		REG	Surface Water	Grab	1, 2	444830.4477	3676187.197
12	Steel Creek	CBY003	11	new surface loc		REG	Surface Water	Grab	1, 2	444774.8851	3676224.239
13	Steel Creek	SC-04	12	existing surface loc		REG	Surface Water	Grab	1, 2	444744.214	3676251.196
14	Steel Creek	SC-04	12FD	existing surface loc		FD	Surface Water	Grab	1, 2	444744.214	3676251.196
15	Steel Creek	SC-07	13	existing surface loc		REG	Surface Water	Grab	1, 2	443749.357	3675216.035
16	Steel Creek	SC-08	14	new surface loc		REG	Surface Water	Grab	1, 2	443381.194	3674395.715

REG: REGULAR SAMPLE FD: FIELD DUPLICATE SPL: SPLIT SAMPLE

**New Monitoring Well Locations**

1	TCE Plume @ Steel Creek	PGW035D	01	105	115	REG	Groundwater	Pump	1, 2	445504.332	3676598.004
2	TCE Plume @ Steel Creek	PGW035C	02	145	155	REG	Groundwater	Pump	1, 2	445504.332	3676598.004
3	Steel Creek	PSC001D2	03	8	10	REG	Groundwater	Pump	1, 2	445206.1568	3676552.984
4	Steel Creek	PSC002D1	04	3	5	REG	Groundwater	Pump	1, 2	445165.8078	3676502.052
5	Steel Creek	PSC002D1	04FD	3	5	FD	Groundwater	Pump	1, 2	445165.8078	3676502.052
6	Steel Creek	PSC002D2	05	8	10	REG	Groundwater	Pump	1, 2	445165.8078	3676502.052
7	Steel Creek	PSC003D1	06	3	5	REG	Groundwater	Pump	1, 2	445123.4743	3676468.318
8	Steel Creek	PSC003D2	07	8	10	REG	Groundwater	Pump	1, 2	445123.4743	3676468.318
9	Steel Creek	PSC004D1	08	3	5	REG	Groundwater	Pump	1, 2	445070.5576	3676438.552
10	Steel Creek	PSC004D2	09	8	10	REG	Groundwater	Pump	1, 2	445070.5576	3676438.552
11	Steel Creek	PSC005D1	10	3	5	REG	Groundwater	Pump	1, 2	444863.8278	3676393.995
12	Steel Creek	PSC005D2	11	8	10	REG	Groundwater	Pump	1, 2	444863.8278	3676393.995
13	Steel Creek	PSC005D2	11SPL	8	10	SPL	Groundwater	Pump	1, 2	444863.8278	3676393.995
14	Steel Creek	PSC006D1	12	3	5	REG	Groundwater	Pump	1, 2	444778.5937	3676250.991
15	Steel Creek	PSC006D2	13	8	10	REG	Groundwater	Pump	1, 2	444778.5937	3676250.991

REG: REGULAR SAMPLE FD: FIELD DUPLICATE SPL: SPLIT SAMPLE

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1	TCE Plume @ Steel Creek	PEB001SB-1	0001	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
2	TCE Plume @ Steel Creek	PEB001SB-2	0002	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
3	TCE Plume @ Steel Creek	PEB001SB-3	0003	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
4	TCE Plume @ Steel Creek	PEB001SB-4	0004	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
5	TCE Plume @ Steel Creek	PEB001SB-5	0005	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
6	TCE Plume @ Steel Creek	PEB001SB-5	0005FD	See footnote b		FD	Deep Soil	Plug	3	445139.1598	3676427.559
7	TCE Plume @ Steel Creek	PEB001SB-6	0006	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
8	TCE Plume @ Steel Creek	PEB001SB-7	0007	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
9	TCE Plume @ Steel Creek	PEB001SB-8	0008	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
10	TCE Plume @ Steel Creek	PEB001SB-9	0009	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
11	TCE Plume @ Steel Creek	PEB001SB-10	0010	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
12	TCE Plume @ Steel Creek	PEB001SB-10	0010SPL	See footnote b		SPL	Deep Soil	Plug	4	445139.1598	3676427.559

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 95 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
13	TCE Plume @ Steel Creek	PEB001SB-11	0011	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
14	TCE Plume @ Steel Creek	PEB001SB-12	0012	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
15	TCE Plume @ Steel Creek	PEB001SB-13	0013	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
16	TCE Plume @ Steel Creek	PEB001SB-14	0014	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
17	TCE Plume @ Steel Creek	PEB001SB-15	0015	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
18	TCE Plume @ Steel Creek	<i>PEB001SB-15</i>	<i>0016FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445139.1598</i>	<i>3676427.559</i>
19	TCE Plume @ Steel Creek	PEB001SB-16	0016	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
20	TCE Plume @ Steel Creek	PEB001SB-17	0017	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
21	TCE Plume @ Steel Creek	PEB001SB-18	0018	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
22	TCE Plume @ Steel Creek	PEB001SB-19	0019	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
23	TCE Plume @ Steel Creek	PEB001SB-20	0020	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
24	TCE Plume @ Steel Creek	<i>PEB001SB-20</i>	<i>0020RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445139.1598</i>	<i>3676427.559</i>
25	TCE Plume @ Steel Creek	PEB001SB-21	0021	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
26	TCE Plume @ Steel Creek	PEB001SB-22	0022	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
27	TCE Plume @ Steel Creek	PEB001SB-23	0023	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
28	TCE Plume @ Steel Creek	PEB001SB-24	0024	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
29	TCE Plume @ Steel Creek	PEB001SB-25	0025	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
30	TCE Plume @ Steel Creek	<i>PEB001SB-25</i>	<i>0025FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445139.1598</i>	<i>3676427.559</i>
31	TCE Plume @ Steel Creek	PEB001SB-26	0026	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
32	TCE Plume @ Steel Creek	PEB001SB-27	0027	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
33	TCE Plume @ Steel Creek	PEB001SB-28	0028	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
34	TCE Plume @ Steel Creek	PEB001SB-29	0029	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
35	TCE Plume @ Steel Creek	PEB001SB-30	0030	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
36	TCE Plume @ Steel Creek	<i>PEB001SB-30</i>	<i>0030SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445139.1598</i>	<i>3676427.559</i>
37	TCE Plume @ Steel Creek	PEB001SB-31	0031	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
38	TCE Plume @ Steel Creek	PEB001SB-32	0032	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
39	TCE Plume @ Steel Creek	PEB001SB-33	0033	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
40	TCE Plume @ Steel Creek	PEB001SB-34	0034	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
41	TCE Plume @ Steel Creek	PEB001SB-35	0035	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
42	TCE Plume @ Steel Creek	PEB001SB-36	0036	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
43	TCE Plume @ Steel Creek	PEB001SB-37	0037	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
44	TCE Plume @ Steel Creek	PEB001SB-38	0038	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
45	TCE Plume @ Steel Creek	PEB001SB-39	0039	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
46	TCE Plume @ Steel Creek	PEB001SB-40	0040	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
47	TCE Plume @ Steel Creek	PEB001SB-41	0041	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
48	TCE Plume @ Steel Creek	PEB001SB-42	0042	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
49	TCE Plume @ Steel Creek	PEB001SB-43	0043	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
50	TCE Plume @ Steel Creek	PEB001SB-44	0044	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
51	TCE Plume @ Steel Creek	PEB001SB-45	0045	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
52	TCE Plume @ Steel Creek	<i>PEB001SB-45</i>	<i>0045FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445139.1598</i>	<i>3676427.559</i>
53	TCE Plume @ Steel Creek	PEB001SB-46	0046	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
54	TCE Plume @ Steel Creek	PEB001SB-47	0047	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 96 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
55	TCE Plume @ Steel Creek	PEB001SB-48	0048	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
56	TCE Plume @ Steel Creek	PEB001SB-49	0049	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
57	TCE Plume @ Steel Creek	PEB001SB-50	0050	See footnote b		REG	Deep Soil	Plug	3	445139.1598	3676427.559
58	TCE Plume @ Steel Creek	<i>PEB001SB-50</i>	<i>0050SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445139.1598</i>	<i>3676427.559</i>
59	TCE Plume @ Steel Creek	PEB002SB-1	0051	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
60	TCE Plume @ Steel Creek	PEB002SB-2	0052	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
61	TCE Plume @ Steel Creek	PEB002SB-3	0053	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
62	TCE Plume @ Steel Creek	PEB002SB-4	0054	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
63	TCE Plume @ Steel Creek	PEB002SB-5	0055	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
64	TCE Plume @ Steel Creek	<i>PEB002SB-5</i>	<i>0056FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445157.9982</i>	<i>3676371.562</i>
65	TCE Plume @ Steel Creek	PEB002SB-6	0057	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
66	TCE Plume @ Steel Creek	PEB002SB-7	0058	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
67	TCE Plume @ Steel Creek	PEB002SB-8	0059	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
68	TCE Plume @ Steel Creek	PEB002SB-9	0060	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
69	TCE Plume @ Steel Creek	PEB002SB-10	0061	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
70	TCE Plume @ Steel Creek	<i>PEB002SB-10</i>	<i>0061RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445157.9982</i>	<i>3676371.562</i>
71	TCE Plume @ Steel Creek	PEB002SB-11	0062	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
72	TCE Plume @ Steel Creek	PEB002SB-12	0063	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
73	TCE Plume @ Steel Creek	PEB002SB-13	0064	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
74	TCE Plume @ Steel Creek	PEB002SB-14	0065	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
75	TCE Plume @ Steel Creek	PEB002SB-15	0066	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
76	TCE Plume @ Steel Creek	<i>PEB002SB-15</i>	<i>0066FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445157.9982</i>	<i>3676371.562</i>
77	TCE Plume @ Steel Creek	PEB002SB-16	0067	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
78	TCE Plume @ Steel Creek	PEB002SB-17	0068	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
79	TCE Plume @ Steel Creek	PEB002SB-18	0069	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
80	TCE Plume @ Steel Creek	PEB002SB-19	0070	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
81	TCE Plume @ Steel Creek	PEB002SB-20	0071	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
82	TCE Plume @ Steel Creek	<i>PEB002SB-20</i>	<i>0071SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445157.9982</i>	<i>3676371.562</i>
83	TCE Plume @ Steel Creek	PEB002SB-21	0072	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
84	TCE Plume @ Steel Creek	PEB002SB-22	0073	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
85	TCE Plume @ Steel Creek	PEB002SB-23	0074	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
86	TCE Plume @ Steel Creek	PEB002SB-24	0075	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
87	TCE Plume @ Steel Creek	PEB002SB-25	0076	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
88	TCE Plume @ Steel Creek	PEB002SB-26	0077	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
89	TCE Plume @ Steel Creek	PEB002SB-27	0078	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
90	TCE Plume @ Steel Creek	PEB002SB-28	0079	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
91	TCE Plume @ Steel Creek	PEB002SB-29	0080	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
92	TCE Plume @ Steel Creek	PEB002SB-30	0081	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
93	TCE Plume @ Steel Creek	PEB002SB-31	0082	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
94	TCE Plume @ Steel Creek	PEB002SB-32	0083	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
95	TCE Plume @ Steel Creek	PEB002SB-33	0084	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
96	TCE Plume @ Steel Creek	PEB002SB-34	0085	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 97 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
97	TCE Plume @ Steel Creek	PEB0025B-35	0086	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
98	TCE Plume @ Steel Creek	<i>PEB0025B-35</i>	<i>0086FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445157.9982</i>	<i>3676371.562</i>
99	TCE Plume @ Steel Creek	PEB0025B-36	0087	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
100	TCE Plume @ Steel Creek	PEB0025B-37	0088	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
101	TCE Plume @ Steel Creek	PEB0025B-38	0089	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
102	TCE Plume @ Steel Creek	PEB0025B-39	0090	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
103	TCE Plume @ Steel Creek	PEB0025B-40	0091	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
104	TCE Plume @ Steel Creek	<i>PEB0025B-40</i>	<i>0091SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445157.9982</i>	<i>3676371.562</i>
105	TCE Plume @ Steel Creek	PEB0025B-41	0092	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
106	TCE Plume @ Steel Creek	PEB0025B-42	0093	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
107	TCE Plume @ Steel Creek	PEB0025B-43	0094	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
108	TCE Plume @ Steel Creek	PEB0025B-44	0095	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
109	TCE Plume @ Steel Creek	PEB0025B-45	0096	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
110	TCE Plume @ Steel Creek	PEB0025B-46	0097	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
111	TCE Plume @ Steel Creek	PEB0025B-47	0098	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
112	TCE Plume @ Steel Creek	PEB0025B-48	0099	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
113	TCE Plume @ Steel Creek	PEB0025B-49	0100	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
114	TCE Plume @ Steel Creek	PEB0025B-50	0101	See footnote b		REG	Deep Soil	Plug	3	445157.9982	3676371.562
115	TCE Plume @ Steel Creek	PEB0035B-1	0102	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
116	TCE Plume @ Steel Creek	PEB0035B-2	0103	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
117	TCE Plume @ Steel Creek	PEB0035B-3	0104	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
118	TCE Plume @ Steel Creek	PEB0035B-4	0105	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
119	TCE Plume @ Steel Creek	PEB0035B-5	0106	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
120	TCE Plume @ Steel Creek	<i>PEB0035B-5</i>	<i>0106FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445177.8485</i>	<i>3676313.924</i>
121	TCE Plume @ Steel Creek	PEB0035B-6	0107	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
122	TCE Plume @ Steel Creek	PEB0035B-7	0108	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
123	TCE Plume @ Steel Creek	PEB0035B-8	0109	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
124	TCE Plume @ Steel Creek	PEB0035B-9	0110	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
125	TCE Plume @ Steel Creek	PEB0035B-10	0111	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
126	TCE Plume @ Steel Creek	<i>PEB0035B-10</i>	<i>0111SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445177.8485</i>	<i>3676313.924</i>
127	TCE Plume @ Steel Creek	PEB0035B-11	0112	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
128	TCE Plume @ Steel Creek	PEB0035B-12	0113	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
129	TCE Plume @ Steel Creek	PEB0035B-13	0114	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
130	TCE Plume @ Steel Creek	PEB0035B-14	0115	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
131	TCE Plume @ Steel Creek	PEB0035B-15	0116	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
132	TCE Plume @ Steel Creek	PEB0035B-16	0117	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
133	TCE Plume @ Steel Creek	PEB0035B-17	0118	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
134	TCE Plume @ Steel Creek	PEB0035B-18	0119	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
135	TCE Plume @ Steel Creek	PEB0035B-19	0120	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
136	TCE Plume @ Steel Creek	PEB0035B-20	0121	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
137	TCE Plume @ Steel Creek	PEB0035B-21	0122	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
138	TCE Plume @ Steel Creek	PEB0035B-22	0123	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 98 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
139	TCE Plume @ Steel Creek	PEB0035B-23	0124	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
140	TCE Plume @ Steel Creek	PEB0035B-24	0125	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
141	TCE Plume @ Steel Creek	PEB0035B-25	0126	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
142	TCE Plume @ Steel Creek	PEB0035B-25	0126FD	See footnote b		FD	Deep Soil	Plug	3	445177.8485	3676313.924
143	TCE Plume @ Steel Creek	PEB0035B-26	0127	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
144	TCE Plume @ Steel Creek	PEB0035B-27	0128	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
145	TCE Plume @ Steel Creek	PEB0035B-28	0129	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
146	TCE Plume @ Steel Creek	PEB0035B-29	0130	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
147	TCE Plume @ Steel Creek	PEB0035B-30	0131	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
148	TCE Plume @ Steel Creek	PEB0035B-30	0131SPL	See footnote b		SPL	Deep Soil	Plug	4	445177.8485	3676313.924
149	TCE Plume @ Steel Creek	PEB0035B-31	0132	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
150	TCE Plume @ Steel Creek	PEB0035B-32	0133	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
151	TCE Plume @ Steel Creek	PEB0035B-33	0134	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
152	TCE Plume @ Steel Creek	PEB0035B-34	0135	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
153	TCE Plume @ Steel Creek	PEB0035B-35	0136	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
154	TCE Plume @ Steel Creek	PEB0035B-35	0136FB	See footnote b		FB	Deep Soil	Plug	3	445177.8485	3676313.924
155	TCE Plume @ Steel Creek	PEB0035B-36	0137	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
156	TCE Plume @ Steel Creek	PEB0035B-37	0138	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
157	TCE Plume @ Steel Creek	PEB0035B-38	0139	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
158	TCE Plume @ Steel Creek	PEB0035B-39	0140	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
159	TCE Plume @ Steel Creek	PEB0035B-40	0141	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
160	TCE Plume @ Steel Creek	PEB0035B-40	0141RB	See footnote b		RB	Deep Soil	Plug	3	445177.8485	3676313.924
161	TCE Plume @ Steel Creek	PEB0035B-41	0142	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
162	TCE Plume @ Steel Creek	PEB0035B-42	0143	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
163	TCE Plume @ Steel Creek	PEB0035B-43	0144	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
164	TCE Plume @ Steel Creek	PEB0035B-44	0145	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
165	TCE Plume @ Steel Creek	PEB0035B-45	0146	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
166	TCE Plume @ Steel Creek	PEB0035B-45	0146FD	See footnote b		FD	Deep Soil	Plug	3	445177.8485	3676313.924
167	TCE Plume @ Steel Creek	PEB0035B-46	0147	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
168	TCE Plume @ Steel Creek	PEB0035B-47	0148	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
169	TCE Plume @ Steel Creek	PEB0035B-48	0149	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
170	TCE Plume @ Steel Creek	PEB0035B-49	0150	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
171	TCE Plume @ Steel Creek	PEB0035B-50	0151	See footnote b		REG	Deep Soil	Plug	3	445177.8485	3676313.924
172	TCE Plume @ Steel Creek	PEB0035B-50	0151SPL	See footnote b		SPL	Deep Soil	Plug	4	445177.8485	3676313.924
173	TCE Plume @ Steel Creek	PEB0045B-1	0152	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
174	TCE Plume @ Steel Creek	PEB0045B-2	0153	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
175	TCE Plume @ Steel Creek	PEB0045B-3	0154	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
176	TCE Plume @ Steel Creek	PEB0045B-4	0155	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
177	TCE Plume @ Steel Creek	PEB0045B-5	0156	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
178	TCE Plume @ Steel Creek	PEB0045B-6	0157	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
179	TCE Plume @ Steel Creek	PEB0045B-7	0158	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
180	TCE Plume @ Steel Creek	PEB0045B-8	0159	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 99 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
181	TCE Plume @ Steel Creek	PEB0045B-9	0160	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
182	TCE Plume @ Steel Creek	PEB0045B-10	0161	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
183	TCE Plume @ Steel Creek	PEB0045B-11	0162	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
184	TCE Plume @ Steel Creek	PEB0045B-12	0163	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
185	TCE Plume @ Steel Creek	PEB0045B-13	0164	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
186	TCE Plume @ Steel Creek	PEB0045B-14	0165	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
187	TCE Plume @ Steel Creek	PEB0045B-15	0166	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
188	TCE Plume @ Steel Creek	<b>PEB0045B-15</b>	<b>0166FD</b>	<b>See footnote b</b>		<b>FD</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445288.5831</b>	<b>3676354.174</b>
189	TCE Plume @ Steel Creek	PEB0045B-16	0167	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
190	TCE Plume @ Steel Creek	PEB0045B-17	0168	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
191	TCE Plume @ Steel Creek	PEB0045B-18	0169	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
192	TCE Plume @ Steel Creek	PEB0045B-19	0170	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
193	TCE Plume @ Steel Creek	PEB0045B-20	0171	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
194	TCE Plume @ Steel Creek	<b>PEB0045B-20</b>	<b>0171SPL</b>	<b>See footnote b</b>		<b>SPL</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>4</b>	<b>445288.5831</b>	<b>3676354.174</b>
195	TCE Plume @ Steel Creek	PEB0045B-21	0172	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
196	TCE Plume @ Steel Creek	PEB0045B-22	0173	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
197	TCE Plume @ Steel Creek	PEB0045B-23	0174	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
198	TCE Plume @ Steel Creek	PEB0045B-24	0175	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
199	TCE Plume @ Steel Creek	PEB0045B-25	0176	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
200	TCE Plume @ Steel Creek	<b>PEB0045B-25</b>	<b>0176FB</b>	<b>See footnote b</b>		<b>FB</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445288.5831</b>	<b>3676354.174</b>
201	TCE Plume @ Steel Creek	PEB0045B-26	0177	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
202	TCE Plume @ Steel Creek	PEB0045B-27	0178	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
203	TCE Plume @ Steel Creek	PEB0045B-28	0179	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
204	TCE Plume @ Steel Creek	PEB0045B-29	0180	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
205	TCE Plume @ Steel Creek	PEB0045B-30	0181	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
206	TCE Plume @ Steel Creek	<b>PEB0045B-30</b>	<b>0181RB</b>	<b>See footnote b</b>		<b>RB</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445288.5831</b>	<b>3676354.174</b>
207	TCE Plume @ Steel Creek	PEB0045B-31	0182	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
208	TCE Plume @ Steel Creek	PEB0045B-32	0183	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
209	TCE Plume @ Steel Creek	PEB0045B-33	0184	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
210	TCE Plume @ Steel Creek	PEB0045B-34	0185	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
211	TCE Plume @ Steel Creek	PEB0045B-35	0186	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
212	TCE Plume @ Steel Creek	<b>PEB0045B-35</b>	<b>0186FD</b>	<b>See footnote b</b>		<b>FD</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445288.5831</b>	<b>3676354.174</b>
213	TCE Plume @ Steel Creek	PEB0045B-36	0187	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
214	TCE Plume @ Steel Creek	PEB0045B-37	0188	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
215	TCE Plume @ Steel Creek	PEB0045B-38	0189	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
216	TCE Plume @ Steel Creek	PEB0045B-39	0190	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
217	TCE Plume @ Steel Creek	PEB0045B-40	0191	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
218	TCE Plume @ Steel Creek	<b>PEB0045B-40</b>	<b>0191SPL</b>	<b>See footnote b</b>		<b>SPL</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>4</b>	<b>445288.5831</b>	<b>3676354.174</b>
219	TCE Plume @ Steel Creek	PEB0045B-41	0192	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
220	TCE Plume @ Steel Creek	PEB0045B-42	0193	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
221	TCE Plume @ Steel Creek	PEB0045B-43	0194	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
222	TCE Plume @ Steel Creek	PEB0045B-44	0195	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 100 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
223	TCE Plume @ Steel Creek	PEB004SB-45	0196	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
224	TCE Plume @ Steel Creek	PEB004SB-46	0197	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
225	TCE Plume @ Steel Creek	PEB004SB-47	0198	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
226	TCE Plume @ Steel Creek	PEB004SB-48	0199	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
227	TCE Plume @ Steel Creek	PEB004SB-49	0200	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
228	TCE Plume @ Steel Creek	PEB004SB-50	0201	See footnote b		REG	Deep Soil	Plug	3	445288.5831	3676354.174
229	TCE Plume @ Steel Creek	PEB005SB-1	0202	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
230	TCE Plume @ Steel Creek	PEB005SB-2	0203	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
231	TCE Plume @ Steel Creek	PEB005SB-3	0204	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
232	TCE Plume @ Steel Creek	PEB005SB-4	0205	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
233	TCE Plume @ Steel Creek	PEB005SB-5	0206	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
234	TCE Plume @ Steel Creek	PEB005SB-5	0206FD	See footnote b		FD	Deep Soil	Plug	3	445260.26	3676393.713
235	TCE Plume @ Steel Creek	PEB005SB-6	0207	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
236	TCE Plume @ Steel Creek	PEB005SB-7	0208	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
237	TCE Plume @ Steel Creek	PEB005SB-8	0209	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
238	TCE Plume @ Steel Creek	PEB005SB-9	0210	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
239	TCE Plume @ Steel Creek	PEB005SB-10	0211	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
240	TCE Plume @ Steel Creek	PEB005SB-10	0211SPL	See footnote b		SPL	Deep Soil	Plug	4	445260.26	3676393.713
241	TCE Plume @ Steel Creek	PEB005SB-11	0212	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
242	TCE Plume @ Steel Creek	PEB005SB-12	0213	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
243	TCE Plume @ Steel Creek	PEB005SB-13	0214	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
244	TCE Plume @ Steel Creek	PEB005SB-14	0215	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
245	TCE Plume @ Steel Creek	PEB005SB-15	0216	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
246	TCE Plume @ Steel Creek	PEB005SB-15	0216FB	See footnote b		FB	Deep Soil	Plug	3	445260.26	3676393.713
247	TCE Plume @ Steel Creek	PEB005SB-16	0217	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
248	TCE Plume @ Steel Creek	PEB005SB-17	0218	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
249	TCE Plume @ Steel Creek	PEB005SB-18	0219	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
250	TCE Plume @ Steel Creek	PEB005SB-19	0220	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
251	TCE Plume @ Steel Creek	PEB005SB-20	0221	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
252	TCE Plume @ Steel Creek	PEB005SB-20	0221RB	See footnote b		RB	Deep Soil	Plug	3	445260.26	3676393.713
253	TCE Plume @ Steel Creek	PEB005SB-21	0222	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
254	TCE Plume @ Steel Creek	PEB005SB-22	0223	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
255	TCE Plume @ Steel Creek	PEB005SB-23	0224	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
256	TCE Plume @ Steel Creek	PEB005SB-24	0225	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
257	TCE Plume @ Steel Creek	PEB005SB-25	0226	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
258	TCE Plume @ Steel Creek	PEB005SB-25	0226FD	See footnote b		FD	Deep Soil	Plug	3	445260.26	3676393.713
259	TCE Plume @ Steel Creek	PEB005SB-26	0227	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
260	TCE Plume @ Steel Creek	PEB005SB-27	0228	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
261	TCE Plume @ Steel Creek	PEB005SB-28	0229	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
262	TCE Plume @ Steel Creek	PEB005SB-29	0230	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
263	TCE Plume @ Steel Creek	PEB005SB-29	0230SPL	See footnote b		SPL	Deep Soil	Plug	4	445260.26	3676393.713
264	TCE Plume @ Steel Creek	PEB005SB-30	0231	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 101 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
265	TCE Plume @ Steel Creek	PEB0055B-31	0232	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
266	TCE Plume @ Steel Creek	PEB0055B-32	0233	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
267	TCE Plume @ Steel Creek	PEB0055B-33	0234	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
268	TCE Plume @ Steel Creek	PEB0055B-34	0235	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
269	TCE Plume @ Steel Creek	PEB0055B-35	0236	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
270	TCE Plume @ Steel Creek	PEB0055B-36	0237	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
271	TCE Plume @ Steel Creek	PEB0055B-37	0238	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
272	TCE Plume @ Steel Creek	PEB0055B-38	0239	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
273	TCE Plume @ Steel Creek	PEB0055B-39	0240	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
274	TCE Plume @ Steel Creek	PEB0055B-40	0241	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
275	TCE Plume @ Steel Creek	PEB0055B-41	0242	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
276	TCE Plume @ Steel Creek	PEB0055B-42	0243	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
277	TCE Plume @ Steel Creek	PEB0055B-43	0244	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
278	TCE Plume @ Steel Creek	PEB0055B-44	0245	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
279	TCE Plume @ Steel Creek	PEB0055B-45	0246	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
280	TCE Plume @ Steel Creek	<i>PEB0055B-45</i>	<i>0246FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445260.26</i>	<i>3676393.713</i>
281	TCE Plume @ Steel Creek	PEB0055B-46	0247	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
282	TCE Plume @ Steel Creek	PEB0055B-47	0248	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
283	TCE Plume @ Steel Creek	PEB0055B-48	0249	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
284	TCE Plume @ Steel Creek	PEB0055B-49	0250	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
285	TCE Plume @ Steel Creek	PEB0055B-50	0251	See footnote b		REG	Deep Soil	Plug	3	445260.26	3676393.713
286	TCE Plume @ Steel Creek	<i>PEB0055B-50</i>	<i>0251SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445260.26</i>	<i>3676393.713</i>
287	TCE Plume @ Steel Creek	PEB0065B-1	0252	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
288	TCE Plume @ Steel Creek	PEB0065B-2	0253	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
289	TCE Plume @ Steel Creek	PEB0065B-3	0254	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
290	TCE Plume @ Steel Creek	PEB0065B-4	0255	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
291	TCE Plume @ Steel Creek	PEB0065B-5	0256	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
292	TCE Plume @ Steel Creek	<i>PEB0065B-5</i>	<i>0256FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445237.9303</i>	<i>3676504.9</i>
293	TCE Plume @ Steel Creek	PEB0065B-6	0257	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
294	TCE Plume @ Steel Creek	PEB0065B-7	0258	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
295	TCE Plume @ Steel Creek	PEB0065B-8	0259	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
296	TCE Plume @ Steel Creek	PEB0065B-9	0260	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
297	TCE Plume @ Steel Creek	PEB0065B-10	0261	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
298	TCE Plume @ Steel Creek	<i>PEB0065B-10</i>	<i>0261RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445237.9303</i>	<i>3676504.9</i>
299	TCE Plume @ Steel Creek	PEB0065B-11	0262	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
300	TCE Plume @ Steel Creek	PEB0065B-12	0263	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
301	TCE Plume @ Steel Creek	PEB0065B-13	0264	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
302	TCE Plume @ Steel Creek	PEB0065B-14	0265	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
303	TCE Plume @ Steel Creek	PEB0065B-15	0266	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
304	TCE Plume @ Steel Creek	<i>PEB0065B-15</i>	<i>0266FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445237.9303</i>	<i>3676504.9</i>
305	TCE Plume @ Steel Creek	PEB0065B-16	0267	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
306	TCE Plume @ Steel Creek	PEB0065B-17	0268	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 102 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
307	TCE Plume @ Steel Creek	PEB0065B-18	0269	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
308	TCE Plume @ Steel Creek	PEB0065B-19	0270	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
309	TCE Plume @ Steel Creek	PEB0065B-20	0271	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
310	TCE Plume @ Steel Creek	<i>PEB0065B-20</i>	<i>0271SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445237.9303</i>	<i>3676504.9</i>
311	TCE Plume @ Steel Creek	PEB0065B-21	0272	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
312	TCE Plume @ Steel Creek	PEB0065B-22	0273	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
313	TCE Plume @ Steel Creek	PEB0065B-23	0274	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
314	TCE Plume @ Steel Creek	PEB0065B-24	0275	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
315	TCE Plume @ Steel Creek	PEB0065B-25	0276	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
316	TCE Plume @ Steel Creek	PEB0065B-26	0277	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
317	TCE Plume @ Steel Creek	PEB0065B-27	0278	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
318	TCE Plume @ Steel Creek	PEB0065B-28	0279	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
319	TCE Plume @ Steel Creek	PEB0065B-29	0280	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
320	TCE Plume @ Steel Creek	PEB0065B-30	0281	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
321	TCE Plume @ Steel Creek	PEB0065B-31	0282	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
322	TCE Plume @ Steel Creek	PEB0065B-32	0283	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
323	TCE Plume @ Steel Creek	PEB0065B-33	0284	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
324	TCE Plume @ Steel Creek	PEB0065B-34	0285	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
325	TCE Plume @ Steel Creek	PEB0065B-35	0286	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
326	TCE Plume @ Steel Creek	<i>PEB0065B-35</i>	<i>0286FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445237.9303</i>	<i>3676504.9</i>
327	TCE Plume @ Steel Creek	PEB0065B-36	0287	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
328	TCE Plume @ Steel Creek	PEB0065B-37	0288	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
329	TCE Plume @ Steel Creek	PEB0065B-38	0289	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
330	TCE Plume @ Steel Creek	PEB0065B-39	0290	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
331	TCE Plume @ Steel Creek	PEB0065B-40	0291	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
332	TCE Plume @ Steel Creek	<i>PEB0065B-40</i>	<i>0291SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445237.9303</i>	<i>3676504.9</i>
333	TCE Plume @ Steel Creek	PEB0065B-41	0292	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
334	TCE Plume @ Steel Creek	PEB0065B-42	0293	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
335	TCE Plume @ Steel Creek	PEB0065B-43	0294	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
336	TCE Plume @ Steel Creek	PEB0065B-44	0295	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
337	TCE Plume @ Steel Creek	PEB0065B-45	0296	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
338	TCE Plume @ Steel Creek	PEB0065B-46	0297	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
339	TCE Plume @ Steel Creek	PEB0065B-47	0298	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
340	TCE Plume @ Steel Creek	PEB0065B-48	0299	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
341	TCE Plume @ Steel Creek	PEB0065B-49	0300	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
342	TCE Plume @ Steel Creek	PEB0065B-50	0301	See footnote b		REG	Deep Soil	Plug	3	445237.9303	3676504.9
343	TCE Plume @ Steel Creek	PEB0075B-1	0302	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
344	TCE Plume @ Steel Creek	PEB0075B-2	0303	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
345	TCE Plume @ Steel Creek	PEB0075B-3	0304	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
346	TCE Plume @ Steel Creek	PEB0075B-4	0305	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
347	TCE Plume @ Steel Creek	PEB0075B-5	0306	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
348	TCE Plume @ Steel Creek	<i>PEB0075B-5</i>	<i>0306FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445271.4982</i>	<i>3676552.495</i>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 103 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
349	TCE Plume @ Steel Creek	PEB007SB-6	0307	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
350	TCE Plume @ Steel Creek	PEB007SB-7	0308	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
351	TCE Plume @ Steel Creek	PEB007SB-8	0309	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
352	TCE Plume @ Steel Creek	PEB007SB-9	0310	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
353	TCE Plume @ Steel Creek	<i>PEB007SB-9</i>	<i>0310SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445271.4982</i>	<i>3676552.495</i>
354	TCE Plume @ Steel Creek	PEB007SB-10	0311	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
355	TCE Plume @ Steel Creek	PEB007SB-11	0312	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
356	TCE Plume @ Steel Creek	PEB007SB-12	0313	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
357	TCE Plume @ Steel Creek	PEB007SB-13	0314	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
358	TCE Plume @ Steel Creek	PEB007SB-14	0315	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
359	TCE Plume @ Steel Creek	PEB007SB-15	0316	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
360	TCE Plume @ Steel Creek	PEB007SB-16	0317	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
361	TCE Plume @ Steel Creek	PEB007SB-17	0318	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
362	TCE Plume @ Steel Creek	PEB007SB-18	0319	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
363	TCE Plume @ Steel Creek	PEB007SB-19	0320	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
364	TCE Plume @ Steel Creek	PEB007SB-20	0321	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
365	TCE Plume @ Steel Creek	PEB007SB-21	0322	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
366	TCE Plume @ Steel Creek	PEB007SB-22	0323	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
367	TCE Plume @ Steel Creek	PEB007SB-23	0324	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
368	TCE Plume @ Steel Creek	PEB007SB-24	0325	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
369	TCE Plume @ Steel Creek	PEB007SB-25	0326	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
370	TCE Plume @ Steel Creek	<i>PEB007SB-25</i>	<i>0326FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445271.4982</i>	<i>3676552.495</i>
371	TCE Plume @ Steel Creek	PEB007SB-26	0327	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
372	TCE Plume @ Steel Creek	PEB007SB-27	0328	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
373	TCE Plume @ Steel Creek	PEB007SB-28	0329	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
374	TCE Plume @ Steel Creek	PEB007SB-29	0330	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
375	TCE Plume @ Steel Creek	<i>PEB007SB-29</i>	<i>0330SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445271.4982</i>	<i>3676552.495</i>
376	TCE Plume @ Steel Creek	PEB007SB-30	0331	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
377	TCE Plume @ Steel Creek	PEB007SB-31	0332	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
378	TCE Plume @ Steel Creek	PEB007SB-32	0333	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
379	TCE Plume @ Steel Creek	PEB007SB-33	0334	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
380	TCE Plume @ Steel Creek	PEB007SB-34	0335	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
381	TCE Plume @ Steel Creek	PEB007SB-35	0336	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
382	TCE Plume @ Steel Creek	<i>PEB007SB-35</i>	<i>0336FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445271.4982</i>	<i>3676552.495</i>
383	TCE Plume @ Steel Creek	PEB007SB-36	0337	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
384	TCE Plume @ Steel Creek	PEB007SB-37	0338	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
385	TCE Plume @ Steel Creek	PEB007SB-38	0339	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
386	TCE Plume @ Steel Creek	PEB007SB-39	0340	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
387	TCE Plume @ Steel Creek	PEB007SB-40	0341	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
388	TCE Plume @ Steel Creek	<i>PEB007SB-40</i>	<i>0341RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445271.4982</i>	<i>3676552.495</i>
389	TCE Plume @ Steel Creek	PEB007SB-41	0342	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
390	TCE Plume @ Steel Creek	PEB007SB-42	0343	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 104 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
391	TCE Plume @ Steel Creek	PEB007SB-43	0344	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
392	TCE Plume @ Steel Creek	PEB007SB-44	0345	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
393	TCE Plume @ Steel Creek	PEB007SB-45	0346	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
394	TCE Plume @ Steel Creek	<i>PEB007SB-45</i>	<i>0346FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445271.4982</i>	<i>3676552.495</i>
395	TCE Plume @ Steel Creek	PEB007SB-46	0347	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
396	TCE Plume @ Steel Creek	PEB007SB-47	0348	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
397	TCE Plume @ Steel Creek	PEB007SB-48	0349	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
398	TCE Plume @ Steel Creek	PEB007SB-49	0350	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
399	TCE Plume @ Steel Creek	PEB007SB-50	0351	See footnote b		REG	Deep Soil	Plug	3	445271.4982	3676552.495
400	TCE Plume @ Steel Creek	<i>PEB007SB-50</i>	<i>0351SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445271.4982</i>	<i>3676552.495</i>
401	TCE Plume @ Steel Creek	PEB008SB-1	0352	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
402	TCE Plume @ Steel Creek	PEB008SB-2	0353	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
403	TCE Plume @ Steel Creek	PEB008SB-3	0354	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
404	TCE Plume @ Steel Creek	PEB008SB-4	0355	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
405	TCE Plume @ Steel Creek	PEB008SB-5	0356	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
406	TCE Plume @ Steel Creek	PEB008SB-6	0357	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
407	TCE Plume @ Steel Creek	PEB008SB-7	0358	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
408	TCE Plume @ Steel Creek	PEB008SB-8	0359	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
409	TCE Plume @ Steel Creek	PEB008SB-9	0360	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
410	TCE Plume @ Steel Creek	PEB008SB-10	0361	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
411	TCE Plume @ Steel Creek	PEB008SB-11	0362	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
412	TCE Plume @ Steel Creek	PEB008SB-12	0363	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
413	TCE Plume @ Steel Creek	PEB008SB-13	0364	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
414	TCE Plume @ Steel Creek	PEB008SB-14	0365	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
415	TCE Plume @ Steel Creek	PEB008SB-15	0366	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
416	TCE Plume @ Steel Creek	<i>PEB008SB-15</i>	<i>0366FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445291.0774</i>	<i>3676576.308</i>
417	TCE Plume @ Steel Creek	PEB008SB-16	0367	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
418	TCE Plume @ Steel Creek	PEB008SB-17	0368	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
419	TCE Plume @ Steel Creek	PEB008SB-18	0369	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
420	TCE Plume @ Steel Creek	PEB008SB-19	0370	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
421	TCE Plume @ Steel Creek	PEB008SB-20	0371	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
422	TCE Plume @ Steel Creek	<i>PEB008SB-20</i>	<i>0371SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445291.0774</i>	<i>3676576.308</i>
423	TCE Plume @ Steel Creek	PEB008SB-21	0372	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
424	TCE Plume @ Steel Creek	PEB008SB-22	0373	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
425	TCE Plume @ Steel Creek	PEB008SB-23	0374	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
426	TCE Plume @ Steel Creek	PEB008SB-24	0375	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
427	TCE Plume @ Steel Creek	PEB008SB-25	0376	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
428	TCE Plume @ Steel Creek	<i>PEB008SB-25</i>	<i>0376FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445291.0774</i>	<i>3676576.308</i>
429	TCE Plume @ Steel Creek	PEB008SB-26	0377	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
430	TCE Plume @ Steel Creek	PEB008SB-27	0378	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
431	TCE Plume @ Steel Creek	PEB008SB-28	0379	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
432	TCE Plume @ Steel Creek	PEB008SB-29	0380	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 105 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
433	TCE Plume @ Steel Creek	PEB008SB-30	0381	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
434	TCE Plume @ Steel Creek	<i>PEB008SB-30</i>	<i>0381RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445291.0774</i>	<i>3676576.308</i>
435	TCE Plume @ Steel Creek	PEB008SB-31	0382	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
436	TCE Plume @ Steel Creek	PEB008SB-32	0383	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
437	TCE Plume @ Steel Creek	PEB008SB-33	0384	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
438	TCE Plume @ Steel Creek	PEB008SB-34	0385	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
439	TCE Plume @ Steel Creek	PEB008SB-35	0386	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
440	TCE Plume @ Steel Creek	<i>PEB008SB-35</i>	<i>0386FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445291.0774</i>	<i>3676576.308</i>
441	TCE Plume @ Steel Creek	PEB008SB-36	0387	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
442	TCE Plume @ Steel Creek	PEB008SB-37	0388	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
443	TCE Plume @ Steel Creek	PEB008SB-38	0389	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
444	TCE Plume @ Steel Creek	PEB008SB-39	0390	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
445	TCE Plume @ Steel Creek	PEB008SB-40	0391	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
446	TCE Plume @ Steel Creek	<i>PEB008SB-40</i>	<i>0391SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445291.0774</i>	<i>3676576.308</i>
447	TCE Plume @ Steel Creek	PEB008SB-41	0392	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
448	TCE Plume @ Steel Creek	PEB008SB-42	0393	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
449	TCE Plume @ Steel Creek	PEB008SB-43	0394	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
450	TCE Plume @ Steel Creek	PEB008SB-44	0395	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
451	TCE Plume @ Steel Creek	PEB008SB-45	0396	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
452	TCE Plume @ Steel Creek	PEB008SB-46	0397	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
453	TCE Plume @ Steel Creek	PEB008SB-47	0398	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
454	TCE Plume @ Steel Creek	PEB008SB-48	0399	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
455	TCE Plume @ Steel Creek	PEB008SB-49	0400	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
456	TCE Plume @ Steel Creek	PEB008SB-50	0401	See footnote b		REG	Deep Soil	Plug	3	445291.0774	3676576.308
457	TCE Plume @ Steel Creek	PEB009SB-1	0402	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
458	TCE Plume @ Steel Creek	PEB009SB-2	0403	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
459	TCE Plume @ Steel Creek	PEB009SB-3	0404	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
460	TCE Plume @ Steel Creek	PEB009SB-4	0405	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
461	TCE Plume @ Steel Creek	PEB009SB-5	0406	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
462	TCE Plume @ Steel Creek	<i>PEB009SB-5</i>	<i>0406FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445320.5248</i>	<i>3676600.589</i>
463	TCE Plume @ Steel Creek	PEB009SB-6	0407	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
464	TCE Plume @ Steel Creek	PEB009SB-7	0408	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
465	TCE Plume @ Steel Creek	PEB009SB-8	0409	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
466	TCE Plume @ Steel Creek	PEB009SB-9	0410	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
467	TCE Plume @ Steel Creek	PEB009SB-10	0411	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
468	TCE Plume @ Steel Creek	<i>PEB009SB-10</i>	<i>0411SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445320.5248</i>	<i>3676600.589</i>
469	TCE Plume @ Steel Creek	PEB009SB-11	0412	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
470	TCE Plume @ Steel Creek	PEB009SB-12	0413	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
471	TCE Plume @ Steel Creek	PEB009SB-13	0414	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
472	TCE Plume @ Steel Creek	PEB009SB-14	0415	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
473	TCE Plume @ Steel Creek	PEB009SB-15	0416	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
474	TCE Plume @ Steel Creek	<i>PEB009SB-15</i>	<i>0416FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445320.5248</i>	<i>3676600.589</i>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 106 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
475	TCE Plume @ Steel Creek	PEB009SB-16	0417	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
476	TCE Plume @ Steel Creek	PEB009SB-17	0418	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
477	TCE Plume @ Steel Creek	PEB009SB-18	0419	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
478	TCE Plume @ Steel Creek	PEB009SB-19	0420	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
479	TCE Plume @ Steel Creek	PEB009SB-20	0421	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
480	TCE Plume @ Steel Creek	PEB009SB-20	0421RB	See footnote b		RB	Deep Soil	Plug	3	445320.5248	3676600.589
481	TCE Plume @ Steel Creek	PEB009SB-21	0422	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
482	TCE Plume @ Steel Creek	PEB009SB-22	0423	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
483	TCE Plume @ Steel Creek	PEB009SB-23	0424	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
484	TCE Plume @ Steel Creek	PEB009SB-24	0425	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
485	TCE Plume @ Steel Creek	PEB009SB-25	0426	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
486	TCE Plume @ Steel Creek	PEB009SB-25	0426FD	See footnote b		FD	Deep Soil	Plug	3	445320.5248	3676600.589
487	TCE Plume @ Steel Creek	PEB009SB-26	0427	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
488	TCE Plume @ Steel Creek	PEB009SB-27	0428	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
489	TCE Plume @ Steel Creek	PEB009SB-28	0429	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
490	TCE Plume @ Steel Creek	PEB009SB-29	0430	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
491	TCE Plume @ Steel Creek	PEB009SB-30	0431	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
492	TCE Plume @ Steel Creek	PEB009SB-30	0431SPL	See footnote b		SPL	Deep Soil	Plug	4	445320.5248	3676600.589
493	TCE Plume @ Steel Creek	PEB009SB-31	0432	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
494	TCE Plume @ Steel Creek	PEB009SB-32	0433	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
495	TCE Plume @ Steel Creek	PEB009SB-33	0434	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
496	TCE Plume @ Steel Creek	PEB009SB-34	0435	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
497	TCE Plume @ Steel Creek	PEB009SB-35	0436	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
498	TCE Plume @ Steel Creek	PEB009SB-36	0437	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
499	TCE Plume @ Steel Creek	PEB009SB-37	0438	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
500	TCE Plume @ Steel Creek	PEB009SB-38	0439	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
501	TCE Plume @ Steel Creek	PEB009SB-39	0440	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
502	TCE Plume @ Steel Creek	PEB009SB-40	0441	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
503	TCE Plume @ Steel Creek	PEB009SB-41	0442	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
504	TCE Plume @ Steel Creek	PEB009SB-42	0443	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
505	TCE Plume @ Steel Creek	PEB009SB-43	0444	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
506	TCE Plume @ Steel Creek	PEB009SB-44	0445	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
507	TCE Plume @ Steel Creek	PEB009SB-45	0446	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
508	TCE Plume @ Steel Creek	PEB009SB-45	0446FD	See footnote b		FD	Deep Soil	Plug	3	445320.5248	3676600.589
509	TCE Plume @ Steel Creek	PEB009SB-46	0447	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
510	TCE Plume @ Steel Creek	PEB009SB-47	0448	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
511	TCE Plume @ Steel Creek	PEB009SB-48	0449	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
512	TCE Plume @ Steel Creek	PEB009SB-49	0450	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
513	TCE Plume @ Steel Creek	PEB009SB-50	0451	See footnote b		REG	Deep Soil	Plug	3	445320.5248	3676600.589
514	TCE Plume @ Steel Creek	PEB009SB-50	0451SPL	See footnote b		SPL	Deep Soil	Plug	4	445320.5248	3676600.589
515	TCE Plume @ Steel Creek	PEB010SB-1	0452	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
516	TCE Plume @ Steel Creek	PEB010SB-2	0453	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 107 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
517	TCE Plume @ Steel Creek	PEB010SB-3	0454	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
518	TCE Plume @ Steel Creek	PEB010SB-4	0455	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
519	TCE Plume @ Steel Creek	PEB010SB-5	0456	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
520	TCE Plume @ Steel Creek	<i>PEB010SB-5</i>	<i>0456FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445350.0805</i>	<i>3676622.847</i>
521	TCE Plume @ Steel Creek	PEB010SB-6	0457	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
522	TCE Plume @ Steel Creek	PEB010SB-7	0458	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
523	TCE Plume @ Steel Creek	PEB010SB-8	0459	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
524	TCE Plume @ Steel Creek	PEB010SB-9	0460	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
525	TCE Plume @ Steel Creek	PEB010SB-10	0461	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
526	TCE Plume @ Steel Creek	<i>PEB010SB-10</i>	<i>0461RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445350.0805</i>	<i>3676622.847</i>
527	TCE Plume @ Steel Creek	PEB010SB-11	0462	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
528	TCE Plume @ Steel Creek	PEB010SB-12	0463	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
529	TCE Plume @ Steel Creek	PEB010SB-13	0464	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
530	TCE Plume @ Steel Creek	PEB010SB-14	0465	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
531	TCE Plume @ Steel Creek	PEB010SB-15	0466	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
532	TCE Plume @ Steel Creek	<i>PEB010SB-15</i>	<i>0466FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445350.0805</i>	<i>3676622.847</i>
533	TCE Plume @ Steel Creek	PEB010SB-16	0467	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
534	TCE Plume @ Steel Creek	PEB010SB-17	0468	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
535	TCE Plume @ Steel Creek	PEB010SB-18	0469	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
536	TCE Plume @ Steel Creek	PEB010SB-19	0470	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
537	TCE Plume @ Steel Creek	PEB010SB-20	0471	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
538	TCE Plume @ Steel Creek	<i>PEB010SB-20</i>	<i>0471SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445350.0805</i>	<i>3676622.847</i>
539	TCE Plume @ Steel Creek	PEB010SB-21	0472	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
540	TCE Plume @ Steel Creek	PEB010SB-22	0473	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
541	TCE Plume @ Steel Creek	PEB010SB-23	0474	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
542	TCE Plume @ Steel Creek	PEB010SB-24	0475	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
543	TCE Plume @ Steel Creek	PEB010SB-25	0476	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
544	TCE Plume @ Steel Creek	PEB010SB-26	0477	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
545	TCE Plume @ Steel Creek	PEB010SB-27	0478	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
546	TCE Plume @ Steel Creek	PEB010SB-28	0479	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
547	TCE Plume @ Steel Creek	PEB010SB-29	0480	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
548	TCE Plume @ Steel Creek	PEB010SB-30	0481	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
549	TCE Plume @ Steel Creek	PEB010SB-31	0482	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
550	TCE Plume @ Steel Creek	PEB010SB-32	0483	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
551	TCE Plume @ Steel Creek	PEB010SB-33	0484	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
552	TCE Plume @ Steel Creek	PEB010SB-34	0485	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
553	TCE Plume @ Steel Creek	PEB010SB-35	0486	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
554	TCE Plume @ Steel Creek	<i>PEB010SB-35</i>	<i>0476FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445350.0805</i>	<i>3676622.847</i>
555	TCE Plume @ Steel Creek	PEB010SB-36	0487	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
556	TCE Plume @ Steel Creek	PEB010SB-37	0488	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
557	TCE Plume @ Steel Creek	PEB010SB-38	0489	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
558	TCE Plume @ Steel Creek	PEB010SB-39	0490	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 108 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
559	TCE Plume @ Steel Creek	PEB0105B-40	0491	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
560	TCE Plume @ Steel Creek	<i>PEB0105B-40</i>	<i>0491SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445350.0805</i>	<i>3676622.847</i>
561	TCE Plume @ Steel Creek	PEB0105B-41	0492	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
562	TCE Plume @ Steel Creek	PEB0105B-42	0493	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
563	TCE Plume @ Steel Creek	PEB0105B-43	0494	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
564	TCE Plume @ Steel Creek	PEB0105B-44	0495	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
565	TCE Plume @ Steel Creek	PEB0105B-45	0496	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
566	TCE Plume @ Steel Creek	PEB0105B-46	0497	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
567	TCE Plume @ Steel Creek	PEB0105B-47	0498	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
568	TCE Plume @ Steel Creek	PEB0105B-48	0499	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
569	TCE Plume @ Steel Creek	PEB0105B-49	0500	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
570	TCE Plume @ Steel Creek	PEB0105B-50	0501	See footnote b		REG	Deep Soil	Plug	3	445350.0805	3676622.847
571	TCE Plume @ Steel Creek	PEB0115B-1	0502	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
572	TCE Plume @ Steel Creek	PEB0115B-2	0503	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
573	TCE Plume @ Steel Creek	PEB0115B-3	0504	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
574	TCE Plume @ Steel Creek	PEB0115B-4	0505	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
575	TCE Plume @ Steel Creek	PEB0115B-5	0506	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
576	TCE Plume @ Steel Creek	<i>PEB0115B-5</i>	<i>0506FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445375.4248</i>	<i>3676639.594</i>
577	TCE Plume @ Steel Creek	PEB0115B-6	0507	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
578	TCE Plume @ Steel Creek	PEB0115B-7	0508	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
579	TCE Plume @ Steel Creek	PEB0115B-8	0509	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
580	TCE Plume @ Steel Creek	PEB0115B-9	0510	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
581	TCE Plume @ Steel Creek	PEB0115B-10	0511	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
582	TCE Plume @ Steel Creek	<i>PEB0115B-10</i>	<i>0511SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445375.4248</i>	<i>3676639.594</i>
583	TCE Plume @ Steel Creek	PEB0115B-11	0512	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
584	TCE Plume @ Steel Creek	PEB0115B-12	0513	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
585	TCE Plume @ Steel Creek	PEB0115B-13	0514	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
586	TCE Plume @ Steel Creek	PEB0115B-14	0515	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
587	TCE Plume @ Steel Creek	PEB0115B-15	0516	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
588	TCE Plume @ Steel Creek	PEB0115B-16	0517	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
589	TCE Plume @ Steel Creek	PEB0115B-17	0518	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
590	TCE Plume @ Steel Creek	PEB0115B-18	0519	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
591	TCE Plume @ Steel Creek	PEB0115B-19	0520	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
592	TCE Plume @ Steel Creek	PEB0115B-20	0521	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
593	TCE Plume @ Steel Creek	PEB0115B-21	0522	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
594	TCE Plume @ Steel Creek	PEB0115B-22	0523	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
595	TCE Plume @ Steel Creek	PEB0115B-23	0524	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
596	TCE Plume @ Steel Creek	PEB0115B-24	0525	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
597	TCE Plume @ Steel Creek	PEB0115B-25	0526	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
598	TCE Plume @ Steel Creek	<i>PEB0115B-25</i>	<i>0526FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445375.4248</i>	<i>3676639.594</i>
599	TCE Plume @ Steel Creek	PEB0115B-26	0527	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
600	TCE Plume @ Steel Creek	PEB0115B-27	0528	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 109 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
601	TCE Plume @ Steel Creek	PEB0115B-28	0529	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
602	TCE Plume @ Steel Creek	PEB0115B-29	0530	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
603	TCE Plume @ Steel Creek	PEB0115B-30	0531	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
604	TCE Plume @ Steel Creek	<i>PEB0115B-30</i>	<i>0531SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445375.4248</i>	<i>3676639.594</i>
605	TCE Plume @ Steel Creek	PEB0115B-31	0532	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
606	TCE Plume @ Steel Creek	PEB0115B-32	0533	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
607	TCE Plume @ Steel Creek	PEB0115B-33	0534	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
608	TCE Plume @ Steel Creek	PEB0115B-34	0535	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
609	TCE Plume @ Steel Creek	PEB0115B-35	0536	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
610	TCE Plume @ Steel Creek	<i>PEB0115B-35</i>	<i>0536FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445375.4248</i>	<i>3676639.594</i>
611	TCE Plume @ Steel Creek	PEB0115B-36	0537	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
612	TCE Plume @ Steel Creek	PEB0115B-37	0538	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
613	TCE Plume @ Steel Creek	PEB0115B-38	0539	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
614	TCE Plume @ Steel Creek	PEB0115B-39	0540	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
615	TCE Plume @ Steel Creek	PEB0115B-40	0541	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
616	TCE Plume @ Steel Creek	<i>PEB0115B-40</i>	<i>0541RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445375.4248</i>	<i>3676639.594</i>
617	TCE Plume @ Steel Creek	PEB0115B-41	0542	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
618	TCE Plume @ Steel Creek	PEB0115B-42	0543	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
619	TCE Plume @ Steel Creek	PEB0115B-43	0544	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
620	TCE Plume @ Steel Creek	PEB0115B-44	0545	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
621	TCE Plume @ Steel Creek	PEB0115B-45	0546	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
622	TCE Plume @ Steel Creek	<i>PEB0115B-45</i>	<i>0546FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445375.4248</i>	<i>3676639.594</i>
623	TCE Plume @ Steel Creek	PEB0115B-46	0547	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
624	TCE Plume @ Steel Creek	PEB0115B-47	0548	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
625	TCE Plume @ Steel Creek	PEB0115B-48	0549	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
626	TCE Plume @ Steel Creek	PEB0115B-49	0550	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
627	TCE Plume @ Steel Creek	PEB0115B-50	0551	See footnote b		REG	Deep Soil	Plug	3	445375.4248	3676639.594
628	TCE Plume @ Steel Creek	<i>PEB0115B-50</i>	<i>0551SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445375.4248</i>	<i>3676639.594</i>
629	TCE Plume @ Steel Creek	PEB0125B-1	0552	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
630	TCE Plume @ Steel Creek	PEB0125B-2	0553	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
631	TCE Plume @ Steel Creek	PEB0125B-3	0554	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
632	TCE Plume @ Steel Creek	PEB0125B-4	0555	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
633	TCE Plume @ Steel Creek	PEB0125B-5	0556	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
634	TCE Plume @ Steel Creek	PEB0125B-6	0557	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
635	TCE Plume @ Steel Creek	PEB0125B-7	0558	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
636	TCE Plume @ Steel Creek	PEB0125B-8	0559	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
637	TCE Plume @ Steel Creek	PEB0125B-9	0560	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
638	TCE Plume @ Steel Creek	PEB0125B-10	0561	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
639	TCE Plume @ Steel Creek	PEB0125B-11	0562	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
640	TCE Plume @ Steel Creek	PEB0125B-12	0563	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
641	TCE Plume @ Steel Creek	PEB0125B-13	0564	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
642	TCE Plume @ Steel Creek	PEB0125B-14	0565	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 110 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
643	TCE Plume @ Steel Creek	PEB012SB-15	0566	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
644	TCE Plume @ Steel Creek	<i>PEB012SB-15</i>	<i>0566FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445401.025</i>	<i>3676656.247</i>
645	TCE Plume @ Steel Creek	PEB012SB-16	0567	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
646	TCE Plume @ Steel Creek	PEB012SB-17	0568	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
647	TCE Plume @ Steel Creek	PEB012SB-18	0569	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
648	TCE Plume @ Steel Creek	PEB012SB-19	0570	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
649	TCE Plume @ Steel Creek	PEB012SB-20	0571	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
650	TCE Plume @ Steel Creek	<i>PEB012SB-20</i>	<i>0571SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445401.025</i>	<i>3676656.247</i>
651	TCE Plume @ Steel Creek	PEB012SB-21	0572	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
652	TCE Plume @ Steel Creek	PEB012SB-22	0573	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
653	TCE Plume @ Steel Creek	PEB012SB-23	0574	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
654	TCE Plume @ Steel Creek	PEB012SB-24	0575	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
655	TCE Plume @ Steel Creek	PEB012SB-25	0576	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
656	TCE Plume @ Steel Creek	<i>PEB012SB-25</i>	<i>0576FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445401.025</i>	<i>3676656.247</i>
657	TCE Plume @ Steel Creek	PEB012SB-26	0577	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
658	TCE Plume @ Steel Creek	PEB012SB-27	0578	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
659	TCE Plume @ Steel Creek	PEB012SB-28	0579	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
660	TCE Plume @ Steel Creek	PEB012SB-29	0580	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
661	TCE Plume @ Steel Creek	PEB012SB-30	0581	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
662	TCE Plume @ Steel Creek	<i>PEB012SB-30</i>	<i>0581RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445401.025</i>	<i>3676656.247</i>
663	TCE Plume @ Steel Creek	PEB012SB-31	0582	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
664	TCE Plume @ Steel Creek	PEB012SB-32	0583	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
665	TCE Plume @ Steel Creek	PEB012SB-33	0584	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
666	TCE Plume @ Steel Creek	PEB012SB-34	0585	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
667	TCE Plume @ Steel Creek	PEB012SB-35	0586	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
668	TCE Plume @ Steel Creek	<i>PEB012SB-35</i>	<i>0586FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445401.025</i>	<i>3676656.247</i>
669	TCE Plume @ Steel Creek	PEB012SB-36	0587	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
670	TCE Plume @ Steel Creek	PEB012SB-37	0588	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
671	TCE Plume @ Steel Creek	PEB012SB-38	0589	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
672	TCE Plume @ Steel Creek	PEB012SB-39	0590	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
673	TCE Plume @ Steel Creek	PEB012SB-40	0591	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
674	TCE Plume @ Steel Creek	<i>PEB012SB-40</i>	<i>0591SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445401.025</i>	<i>3676656.247</i>
675	TCE Plume @ Steel Creek	PEB012SB-41	0592	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
676	TCE Plume @ Steel Creek	PEB012SB-42	0593	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
677	TCE Plume @ Steel Creek	PEB012SB-43	0594	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
678	TCE Plume @ Steel Creek	PEB012SB-44	0595	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
679	TCE Plume @ Steel Creek	PEB012SB-45	0596	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
680	TCE Plume @ Steel Creek	PEB012SB-46	0597	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
681	TCE Plume @ Steel Creek	PEB012SB-47	0598	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
682	TCE Plume @ Steel Creek	PEB012SB-48	0599	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
683	TCE Plume @ Steel Creek	PEB012SB-49	0600	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247
684	TCE Plume @ Steel Creek	PEB012SB-50	0601	See footnote b		REG	Deep Soil	Plug	3	445401.025	3676656.247

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 111 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
685	TCE Plume @ Steel Creek	PEB013SB-1	0602	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
686	TCE Plume @ Steel Creek	PEB013SB-2	0603	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
687	TCE Plume @ Steel Creek	PEB013SB-3	0604	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
688	TCE Plume @ Steel Creek	PEB013SB-4	0605	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
689	TCE Plume @ Steel Creek	PEB013SB-5	0606	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
690	TCE Plume @ Steel Creek	<i>PEB013SB-5</i>	<i>0606FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445310.4405</i>	<i>3676574.792</i>
691	TCE Plume @ Steel Creek	PEB013SB-6	0607	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
692	TCE Plume @ Steel Creek	PEB013SB-7	0608	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
693	TCE Plume @ Steel Creek	PEB013SB-8	0609	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
694	TCE Plume @ Steel Creek	PEB013SB-9	0610	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
695	TCE Plume @ Steel Creek	PEB013SB-10	0611	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
696	TCE Plume @ Steel Creek	<i>PEB013SB-10</i>	<i>0611SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445310.4405</i>	<i>3676574.792</i>
697	TCE Plume @ Steel Creek	PEB013SB-11	0612	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
698	TCE Plume @ Steel Creek	PEB013SB-12	0613	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
699	TCE Plume @ Steel Creek	PEB013SB-13	0614	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
700	TCE Plume @ Steel Creek	PEB013SB-14	0615	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
701	TCE Plume @ Steel Creek	PEB013SB-15	0616	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
702	TCE Plume @ Steel Creek	<i>PEB013SB-15</i>	<i>0616FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445310.4405</i>	<i>3676574.792</i>
703	TCE Plume @ Steel Creek	PEB013SB-16	0617	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
704	TCE Plume @ Steel Creek	PEB013SB-17	0618	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
705	TCE Plume @ Steel Creek	PEB013SB-18	0619	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
706	TCE Plume @ Steel Creek	PEB013SB-19	0620	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
707	TCE Plume @ Steel Creek	PEB013SB-20	0621	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
708	TCE Plume @ Steel Creek	<i>PEB013SB-20</i>	<i>0621RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445310.4405</i>	<i>3676574.792</i>
709	TCE Plume @ Steel Creek	PEB013SB-21	0622	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
710	TCE Plume @ Steel Creek	PEB013SB-22	0623	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
711	TCE Plume @ Steel Creek	PEB013SB-23	0624	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
712	TCE Plume @ Steel Creek	PEB013SB-24	0625	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
713	TCE Plume @ Steel Creek	PEB013SB-25	0626	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
714	TCE Plume @ Steel Creek	<i>PEB013SB-25</i>	<i>0626FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445310.4405</i>	<i>3676574.792</i>
715	TCE Plume @ Steel Creek	PEB013SB-26	0627	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
716	TCE Plume @ Steel Creek	PEB013SB-27	0628	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
717	TCE Plume @ Steel Creek	PEB013SB-28	0629	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
718	TCE Plume @ Steel Creek	PEB013SB-29	0630	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
719	TCE Plume @ Steel Creek	PEB013SB-30	0631	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
720	TCE Plume @ Steel Creek	<i>PEB013SB-30</i>	<i>0631SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445310.4405</i>	<i>3676574.792</i>
721	TCE Plume @ Steel Creek	PEB013SB-31	0632	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
722	TCE Plume @ Steel Creek	PEB013SB-32	0633	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
723	TCE Plume @ Steel Creek	PEB013SB-33	0634	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
724	TCE Plume @ Steel Creek	PEB013SB-34	0635	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
725	TCE Plume @ Steel Creek	PEB013SB-35	0636	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
726	TCE Plume @ Steel Creek	PEB013SB-36	0637	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 112 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
727	TCE Plume @ Steel Creek	PEB0135B-37	0638	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
728	TCE Plume @ Steel Creek	PEB0135B-38	0639	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
729	TCE Plume @ Steel Creek	PEB0135B-39	0640	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
730	TCE Plume @ Steel Creek	PEB0135B-40	0641	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
731	TCE Plume @ Steel Creek	PEB0135B-41	0642	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
732	TCE Plume @ Steel Creek	PEB0135B-42	0643	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
733	TCE Plume @ Steel Creek	PEB0135B-43	0644	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
734	TCE Plume @ Steel Creek	PEB0135B-44	0645	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
735	TCE Plume @ Steel Creek	PEB0135B-45	0646	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
736	TCE Plume @ Steel Creek	<i>PEB0135B-45</i>	<i>0646FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445310.4405</i>	<i>3676574.792</i>
737	TCE Plume @ Steel Creek	PEB0135B-46	0647	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
738	TCE Plume @ Steel Creek	PEB0135B-47	0648	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
739	TCE Plume @ Steel Creek	PEB0135B-48	0649	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
740	TCE Plume @ Steel Creek	PEB0135B-49	0650	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
741	TCE Plume @ Steel Creek	PEB0135B-50	0651	See footnote b		REG	Deep Soil	Plug	3	445310.4405	3676574.792
742	TCE Plume @ Steel Creek	<i>PEB0135B-50</i>	<i>0651SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445310.4405</i>	<i>3676574.792</i>
743	TCE Plume @ Steel Creek	PEB0145B-1	0652	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
744	TCE Plume @ Steel Creek	PEB0145B-2	0653	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
745	TCE Plume @ Steel Creek	PEB0145B-3	0654	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
746	TCE Plume @ Steel Creek	PEB0145B-4	0655	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
747	TCE Plume @ Steel Creek	PEB0145B-5	0656	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
748	TCE Plume @ Steel Creek	<i>PEB0145B-5</i>	<i>0656FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445318.951</i>	<i>3676545.525</i>
749	TCE Plume @ Steel Creek	PEB0145B-6	0657	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
750	TCE Plume @ Steel Creek	PEB0145B-7	0658	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
751	TCE Plume @ Steel Creek	PEB0145B-8	0659	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
752	TCE Plume @ Steel Creek	PEB0145B-9	0660	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
753	TCE Plume @ Steel Creek	PEB0145B-10	0661	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
754	TCE Plume @ Steel Creek	<i>PEB0145B-10</i>	<i>0661RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445318.951</i>	<i>3676545.525</i>
755	TCE Plume @ Steel Creek	PEB0145B-11	0662	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
756	TCE Plume @ Steel Creek	PEB0145B-12	0663	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
757	TCE Plume @ Steel Creek	PEB0145B-13	0664	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
758	TCE Plume @ Steel Creek	PEB0145B-14	0665	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
759	TCE Plume @ Steel Creek	PEB0145B-15	0666	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
760	TCE Plume @ Steel Creek	<i>PEB0145B-15</i>	<i>0666FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445318.951</i>	<i>3676545.525</i>
761	TCE Plume @ Steel Creek	PEB0145B-16	0667	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
762	TCE Plume @ Steel Creek	PEB0145B-17	0668	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
763	TCE Plume @ Steel Creek	PEB0145B-18	0669	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
764	TCE Plume @ Steel Creek	PEB0145B-19	0670	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
765	TCE Plume @ Steel Creek	PEB0145B-20	0671	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
766	TCE Plume @ Steel Creek	<i>PEB0145B-20</i>	<i>0671SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445318.951</i>	<i>3676545.525</i>
767	TCE Plume @ Steel Creek	PEB0145B-21	0672	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
768	TCE Plume @ Steel Creek	PEB0145B-22	0673	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 113 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
769	TCE Plume @ Steel Creek	PEB0145B-23	0674	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
770	TCE Plume @ Steel Creek	PEB0145B-24	0675	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
771	TCE Plume @ Steel Creek	PEB0145B-25	0676	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
772	TCE Plume @ Steel Creek	PEB0145B-26	0677	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
773	TCE Plume @ Steel Creek	PEB0145B-27	0678	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
774	TCE Plume @ Steel Creek	PEB0145B-28	0679	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
775	TCE Plume @ Steel Creek	PEB0145B-29	0680	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
776	TCE Plume @ Steel Creek	PEB0145B-30	0681	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
777	TCE Plume @ Steel Creek	PEB0145B-31	0682	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
778	TCE Plume @ Steel Creek	PEB0145B-32	0683	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
779	TCE Plume @ Steel Creek	PEB0145B-33	0684	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
780	TCE Plume @ Steel Creek	PEB0145B-34	0685	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
781	TCE Plume @ Steel Creek	PEB0145B-35	0686	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
782	TCE Plume @ Steel Creek	PEB0145B-35	0686FD	See footnote b		FD	Deep Soil	Plug	3	445318.951	3676545.525
783	TCE Plume @ Steel Creek	PEB0145B-36	0687	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
784	TCE Plume @ Steel Creek	PEB0145B-37	0688	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
785	TCE Plume @ Steel Creek	PEB0145B-38	0689	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
786	TCE Plume @ Steel Creek	PEB0145B-39	0690	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
787	TCE Plume @ Steel Creek	PEB0145B-40	0691	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
788	TCE Plume @ Steel Creek	PEB0145B-40	0691SPL	See footnote b		SPL	Deep Soil	Plug	4	445318.951	3676545.525
789	TCE Plume @ Steel Creek	PEB0145B-41	0692	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
790	TCE Plume @ Steel Creek	PEB0145B-42	0693	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
791	TCE Plume @ Steel Creek	PEB0145B-43	0694	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
792	TCE Plume @ Steel Creek	PEB0145B-44	0695	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
793	TCE Plume @ Steel Creek	PEB0145B-45	0696	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
794	TCE Plume @ Steel Creek	PEB0145B-46	0697	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
795	TCE Plume @ Steel Creek	PEB0145B-47	0698	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
796	TCE Plume @ Steel Creek	PEB0145B-48	0699	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
797	TCE Plume @ Steel Creek	PEB0145B-49	0700	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
798	TCE Plume @ Steel Creek	PEB0145B-50	0701	See footnote b		REG	Deep Soil	Plug	3	445318.951	3676545.525
799	TCE Plume @ Steel Creek	PEB0155B-1	0702	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
800	TCE Plume @ Steel Creek	PEB0155B-2	0703	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
801	TCE Plume @ Steel Creek	PEB0155B-3	0704	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
802	TCE Plume @ Steel Creek	PEB0155B-4	0705	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
803	TCE Plume @ Steel Creek	PEB0155B-5	0706	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
804	TCE Plume @ Steel Creek	PEB0155B-5	0706FD	See footnote b		FD	Deep Soil	Plug	3	445328.8527	3676525.654
805	TCE Plume @ Steel Creek	PEB0155B-6	0707	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
806	TCE Plume @ Steel Creek	PEB0155B-7	0708	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
807	TCE Plume @ Steel Creek	PEB0155B-8	0709	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
808	TCE Plume @ Steel Creek	PEB0155B-9	0710	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
809	TCE Plume @ Steel Creek	PEB0155B-10	0711	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
810	TCE Plume @ Steel Creek	PEB0155B-10	0711SPL	See footnote b		SPL	Deep Soil	Plug	4	445328.8527	3676525.654

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 114 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
811	TCE Plume @ Steel Creek	PEB0155B-11	0712	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
812	TCE Plume @ Steel Creek	PEB0155B-12	0713	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
813	TCE Plume @ Steel Creek	PEB0155B-13	0714	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
814	TCE Plume @ Steel Creek	PEB0155B-14	0715	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
815	TCE Plume @ Steel Creek	PEB0155B-15	0716	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
816	TCE Plume @ Steel Creek	PEB0155B-16	0717	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
817	TCE Plume @ Steel Creek	PEB0155B-17	0718	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
818	TCE Plume @ Steel Creek	PEB0155B-18	0719	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
819	TCE Plume @ Steel Creek	PEB0155B-19	0720	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
820	TCE Plume @ Steel Creek	PEB0155B-20	0721	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
821	TCE Plume @ Steel Creek	PEB0155B-21	0722	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
822	TCE Plume @ Steel Creek	PEB0155B-22	0723	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
823	TCE Plume @ Steel Creek	PEB0155B-23	0724	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
824	TCE Plume @ Steel Creek	PEB0155B-24	0725	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
825	TCE Plume @ Steel Creek	PEB0155B-25	0726	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
826	TCE Plume @ Steel Creek	<b>PEB0155B-25</b>	<b>0726FD</b>	<b>See footnote b</b>		<b>FD</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445328.8527</b>	<b>3676525.654</b>
827	TCE Plume @ Steel Creek	PEB0155B-26	0727	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
828	TCE Plume @ Steel Creek	PEB0155B-27	0728	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
829	TCE Plume @ Steel Creek	PEB0155B-28	0729	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
830	TCE Plume @ Steel Creek	PEB0155B-29	0730	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
831	TCE Plume @ Steel Creek	PEB0155B-30	0731	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
832	TCE Plume @ Steel Creek	<b>PEB0155B-30</b>	<b>0731SPL</b>	<b>See footnote b</b>		<b>SPL</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>4</b>	<b>445328.8527</b>	<b>3676525.654</b>
833	TCE Plume @ Steel Creek	PEB0155B-31	0732	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
834	TCE Plume @ Steel Creek	PEB0155B-32	0733	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
835	TCE Plume @ Steel Creek	PEB0155B-33	0734	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
836	TCE Plume @ Steel Creek	PEB0155B-34	0735	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
837	TCE Plume @ Steel Creek	PEB0155B-35	0736	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
838	TCE Plume @ Steel Creek	<b>PEB0155B-35</b>	<b>0736FB</b>	<b>See footnote b</b>		<b>FB</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445328.8527</b>	<b>3676525.654</b>
839	TCE Plume @ Steel Creek	PEB0155B-36	0737	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
840	TCE Plume @ Steel Creek	PEB0155B-37	0738	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
841	TCE Plume @ Steel Creek	PEB0155B-38	0739	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
842	TCE Plume @ Steel Creek	PEB0155B-39	0740	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
843	TCE Plume @ Steel Creek	PEB0155B-40	0741	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
844	TCE Plume @ Steel Creek	<b>PEB0155B-40</b>	<b>0741RB</b>	<b>See footnote b</b>		<b>RB</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445328.8527</b>	<b>3676525.654</b>
845	TCE Plume @ Steel Creek	PEB0155B-41	0742	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
846	TCE Plume @ Steel Creek	PEB0155B-42	0743	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
847	TCE Plume @ Steel Creek	PEB0155B-43	0744	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
848	TCE Plume @ Steel Creek	PEB0155B-44	0745	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
849	TCE Plume @ Steel Creek	PEB0155B-45	0746	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
850	TCE Plume @ Steel Creek	<b>PEB0155B-45</b>	<b>0746FD</b>	<b>See footnote b</b>		<b>FD</b>	<b>Deep Soil</b>	<b>Plug</b>	<b>3</b>	<b>445328.8527</b>	<b>3676525.654</b>
851	TCE Plume @ Steel Creek	PEB0155B-46	0747	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
852	TCE Plume @ Steel Creek	PEB0155B-47	0748	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 115 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
853	TCE Plume @ Steel Creek	PEB015SB-48	0749	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
854	TCE Plume @ Steel Creek	PEB015SB-49	0750	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
855	TCE Plume @ Steel Creek	PEB015SB-50	0751	See footnote b		REG	Deep Soil	Plug	3	445328.8527	3676525.654
856	TCE Plume @ Steel Creek	<i>PEB015SB-50</i>	<i>0751SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445328.8527</i>	<i>3676525.654</i>
857	TCE Plume @ Steel Creek	PEB016SB-1	0752	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
858	TCE Plume @ Steel Creek	PEB016SB-2	0753	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
859	TCE Plume @ Steel Creek	PEB016SB-3	0754	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
860	TCE Plume @ Steel Creek	PEB016SB-4	0755	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
861	TCE Plume @ Steel Creek	PEB016SB-5	0756	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
862	TCE Plume @ Steel Creek	PEB016SB-6	0757	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
863	TCE Plume @ Steel Creek	PEB016SB-7	0758	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
864	TCE Plume @ Steel Creek	PEB016SB-8	0759	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
865	TCE Plume @ Steel Creek	PEB016SB-9	0760	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
866	TCE Plume @ Steel Creek	PEB016SB-10	0761	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
867	TCE Plume @ Steel Creek	PEB016SB-11	0762	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
868	TCE Plume @ Steel Creek	PEB016SB-12	0763	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
869	TCE Plume @ Steel Creek	PEB016SB-13	0764	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
870	TCE Plume @ Steel Creek	PEB016SB-14	0765	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
871	TCE Plume @ Steel Creek	PEB016SB-15	0766	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
872	TCE Plume @ Steel Creek	<i>PEB016SB-15</i>	<i>0766FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445345.4782</i>	<i>3676551.201</i>
873	TCE Plume @ Steel Creek	PEB016SB-16	0767	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
874	TCE Plume @ Steel Creek	PEB016SB-17	0768	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
875	TCE Plume @ Steel Creek	PEB016SB-18	0769	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
876	TCE Plume @ Steel Creek	PEB016SB-19	0770	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
877	TCE Plume @ Steel Creek	PEB016SB-20	0771	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
878	TCE Plume @ Steel Creek	<i>PEB016SB-20</i>	<i>0771SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445345.4782</i>	<i>3676551.201</i>
879	TCE Plume @ Steel Creek	PEB016SB-21	0772	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
880	TCE Plume @ Steel Creek	PEB016SB-22	0773	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
881	TCE Plume @ Steel Creek	PEB016SB-23	0774	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
882	TCE Plume @ Steel Creek	PEB016SB-24	0775	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
883	TCE Plume @ Steel Creek	PEB016SB-25	0776	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
884	TCE Plume @ Steel Creek	<i>PEB016SB-25</i>	<i>0776FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445345.4782</i>	<i>3676551.201</i>
885	TCE Plume @ Steel Creek	PEB016SB-26	0777	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
886	TCE Plume @ Steel Creek	PEB016SB-27	0778	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
887	TCE Plume @ Steel Creek	PEB016SB-28	0779	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
888	TCE Plume @ Steel Creek	PEB016SB-29	0780	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
889	TCE Plume @ Steel Creek	PEB016SB-30	0781	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
890	TCE Plume @ Steel Creek	<i>PEB016SB-30</i>	<i>0781RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445345.4782</i>	<i>3676551.201</i>
891	TCE Plume @ Steel Creek	PEB016SB-31	0782	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
892	TCE Plume @ Steel Creek	PEB016SB-32	0783	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
893	TCE Plume @ Steel Creek	PEB016SB-33	0784	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
894	TCE Plume @ Steel Creek	PEB016SB-34	0785	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 116 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
895	TCE Plume @ Steel Creek	PEB0165B-35	0786	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
896	TCE Plume @ Steel Creek	<i>PEB0165B-35</i>	<i>0786FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445345.4782</i>	<i>3676551.201</i>
897	TCE Plume @ Steel Creek	PEB0165B-36	0787	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
898	TCE Plume @ Steel Creek	PEB0165B-37	0788	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
899	TCE Plume @ Steel Creek	PEB0165B-38	0789	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
900	TCE Plume @ Steel Creek	PEB0165B-39	0790	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
901	TCE Plume @ Steel Creek	PEB0165B-40	0791	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
902	TCE Plume @ Steel Creek	<i>PEB0165B-40</i>	<i>0791SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445345.4782</i>	<i>3676551.201</i>
903	TCE Plume @ Steel Creek	PEB0165B-41	0792	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
904	TCE Plume @ Steel Creek	PEB0165B-42	0793	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
905	TCE Plume @ Steel Creek	PEB0165B-43	0794	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
906	TCE Plume @ Steel Creek	PEB0165B-44	0795	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
907	TCE Plume @ Steel Creek	PEB0165B-45	0796	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
908	TCE Plume @ Steel Creek	PEB0165B-46	0797	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
909	TCE Plume @ Steel Creek	PEB0165B-47	0798	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
910	TCE Plume @ Steel Creek	PEB0165B-48	0799	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
911	TCE Plume @ Steel Creek	PEB0165B-49	0800	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
912	TCE Plume @ Steel Creek	PEB0165B-50	0801	See footnote b		REG	Deep Soil	Plug	3	445345.4782	3676551.201
913	TCE Plume @ Steel Creek	PEB0175B-1	0802	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
914	TCE Plume @ Steel Creek	PEB0175B-2	0803	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
915	TCE Plume @ Steel Creek	PEB0175B-3	0804	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
916	TCE Plume @ Steel Creek	PEB0175B-4	0805	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
917	TCE Plume @ Steel Creek	PEB0175B-5	0806	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
918	TCE Plume @ Steel Creek	<i>PEB0175B-5</i>	<i>0806FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445363.6125</i>	<i>3676578.14</i>
919	TCE Plume @ Steel Creek	PEB0175B-6	0807	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
920	TCE Plume @ Steel Creek	PEB0175B-7	0808	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
921	TCE Plume @ Steel Creek	PEB0175B-8	0809	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
922	TCE Plume @ Steel Creek	PEB0175B-9	0810	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
923	TCE Plume @ Steel Creek	PEB0175B-10	0811	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
924	TCE Plume @ Steel Creek	<i>PEB0175B-10</i>	<i>0811SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445363.6125</i>	<i>3676578.14</i>
925	TCE Plume @ Steel Creek	PEB0175B-11	0812	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
926	TCE Plume @ Steel Creek	PEB0175B-12	0813	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
927	TCE Plume @ Steel Creek	PEB0175B-13	0814	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
928	TCE Plume @ Steel Creek	PEB0175B-14	0815	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
929	TCE Plume @ Steel Creek	PEB0175B-15	0816	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
930	TCE Plume @ Steel Creek	<i>PEB0175B-15</i>	<i>0816FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445363.6125</i>	<i>3676578.14</i>
931	TCE Plume @ Steel Creek	PEB0175B-16	0817	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
932	TCE Plume @ Steel Creek	PEB0175B-17	0818	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
933	TCE Plume @ Steel Creek	PEB0175B-18	0819	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
934	TCE Plume @ Steel Creek	PEB0175B-19	0820	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
935	TCE Plume @ Steel Creek	PEB0175B-20	0821	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
936	TCE Plume @ Steel Creek	<i>PEB0175B-20</i>	<i>0821RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445363.6125</i>	<i>3676578.14</i>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 117 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
937	TCE Plume @ Steel Creek	PEB0175B-21	0822	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
938	TCE Plume @ Steel Creek	PEB0175B-22	0823	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
939	TCE Plume @ Steel Creek	PEB0175B-23	0824	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
940	TCE Plume @ Steel Creek	PEB0175B-24	0825	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
941	TCE Plume @ Steel Creek	PEB0175B-25	0826	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
942	TCE Plume @ Steel Creek	PEB0175B-25	0826FD	See footnote b		FD	Deep Soil	Plug	3	445363.6125	3676578.14
943	TCE Plume @ Steel Creek	PEB0175B-26	0827	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
944	TCE Plume @ Steel Creek	PEB0175B-27	0828	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
945	TCE Plume @ Steel Creek	PEB0175B-28	0829	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
946	TCE Plume @ Steel Creek	PEB0175B-29	0830	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
947	TCE Plume @ Steel Creek	PEB0175B-30	0831	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
948	TCE Plume @ Steel Creek	PEB0175B-30	0831SPL	See footnote b		SPL	Deep Soil	Plug	4	445363.6125	3676578.14
949	TCE Plume @ Steel Creek	PEB0175B-31	0832	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
950	TCE Plume @ Steel Creek	PEB0175B-32	0833	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
951	TCE Plume @ Steel Creek	PEB0175B-33	0834	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
952	TCE Plume @ Steel Creek	PEB0175B-34	0835	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
953	TCE Plume @ Steel Creek	PEB0175B-35	0836	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
954	TCE Plume @ Steel Creek	PEB0175B-36	0837	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
955	TCE Plume @ Steel Creek	PEB0175B-37	0838	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
956	TCE Plume @ Steel Creek	PEB0175B-38	0839	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
957	TCE Plume @ Steel Creek	PEB0175B-39	0840	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
958	TCE Plume @ Steel Creek	PEB0175B-40	0841	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
959	TCE Plume @ Steel Creek	PEB0175B-41	0842	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
960	TCE Plume @ Steel Creek	PEB0175B-42	0843	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
961	TCE Plume @ Steel Creek	PEB0175B-43	0844	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
962	TCE Plume @ Steel Creek	PEB0175B-44	0845	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
963	TCE Plume @ Steel Creek	PEB0175B-45	0846	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
964	TCF Plume @ Steel Creek	PEB0175B-45	0846FD	See footnote b		FD	Deep Soil	Plug	3	445363.6125	3676578.14
965	TCE Plume @ Steel Creek	PEB0175B-46	0847	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
966	TCE Plume @ Steel Creek	PEB0175B-47	0848	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
967	TCE Plume @ Steel Creek	PEB0175B-48	0849	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
968	TCE Plume @ Steel Creek	PEB0175B-49	0850	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
969	TCE Plume @ Steel Creek	PEB0175B-50	0851	See footnote b		REG	Deep Soil	Plug	3	445363.6125	3676578.14
970	TCE Plume @ Steel Creek	PEB0175B-50	0851SPL	See footnote b		SPL	Deep Soil	Plug	4	445363.6125	3676578.14
971	TCE Plume @ Steel Creek	PEB0185B-1	0852	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
972	TCE Plume @ Steel Creek	PEB0185B-2	0853	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
973	TCE Plume @ Steel Creek	PEB0185B-3	0854	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
974	TCE Plume @ Steel Creek	PEB0185B-4	0855	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
975	TCE Plume @ Steel Creek	PEB0185B-5	0856	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
976	TCE Plume @ Steel Creek	PEB0185B-5	0856FB	See footnote b		FB	Deep Soil	Plug	3	445385.2959	3676597.262
977	TCE Plume @ Steel Creek	PEB0185B-6	0857	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
978	TCE Plume @ Steel Creek	PEB0185B-7	0858	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 118 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
979	TCE Plume @ Steel Creek	PEB018SB-8	0859	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
980	TCE Plume @ Steel Creek	PEB018SB-9	0860	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
981	TCE Plume @ Steel Creek	PEB018SB-10	0861	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
982	TCE Plume @ Steel Creek	<i>PEB018SB-10</i>	<i>0861RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445385.2959</i>	<i>3676597.262</i>
983	TCE Plume @ Steel Creek	PEB018SB-11	0862	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
984	TCE Plume @ Steel Creek	PEB018SB-12	0863	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
985	TCE Plume @ Steel Creek	PEB018SB-13	0864	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
986	TCE Plume @ Steel Creek	PEB018SB-14	0865	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
987	TCE Plume @ Steel Creek	PEB018SB-15	0866	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
988	TCE Plume @ Steel Creek	<i>PEB018SB-15</i>	<i>0866FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445385.2959</i>	<i>3676597.262</i>
989	TCE Plume @ Steel Creek	PEB018SB-16	0867	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
990	TCE Plume @ Steel Creek	PEB018SB-17	0868	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
991	TCE Plume @ Steel Creek	PEB018SB-18	0869	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
992	TCE Plume @ Steel Creek	PEB018SB-19	0870	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
993	TCE Plume @ Steel Creek	PEB018SB-20	0871	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
994	TCE Plume @ Steel Creek	<i>PEB018SB-20</i>	<i>0871SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445385.2959</i>	<i>3676597.262</i>
995	TCE Plume @ Steel Creek	PEB018SB-21	0872	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
996	TCE Plume @ Steel Creek	PEB018SB-22	0873	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
997	TCE Plume @ Steel Creek	PEB018SB-23	0874	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
998	TCE Plume @ Steel Creek	PEB018SB-24	0875	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
999	TCE Plume @ Steel Creek	PEB018SB-25	0876	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1000	TCE Plume @ Steel Creek	PEB018SB-26	0877	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1001	TCE Plume @ Steel Creek	PEB018SB-27	0878	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1002	TCE Plume @ Steel Creek	PEB018SB-28	0879	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1003	TCE Plume @ Steel Creek	PEB018SB-29	0880	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1004	TCE Plume @ Steel Creek	PEB018SB-30	0881	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1005	TCE Plume @ Steel Creek	PEB018SB-31	0882	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1006	TCE Plume @ Steel Creek	PEB018SB-32	0883	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1007	TCE Plume @ Steel Creek	PEB018SB-33	0884	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1008	TCE Plume @ Steel Creek	PEB018SB-34	0885	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1009	TCE Plume @ Steel Creek	PEB018SB-35	0886	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1010	TCE Plume @ Steel Creek	<i>PEB018SB-35</i>	<i>0886FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445385.2959</i>	<i>3676597.262</i>
1011	TCE Plume @ Steel Creek	PEB018SB-36	0887	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1012	TCE Plume @ Steel Creek	PEB018SB-37	0888	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1013	TCE Plume @ Steel Creek	PEB018SB-38	0889	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1014	TCE Plume @ Steel Creek	PEB018SB-39	0890	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1015	TCE Plume @ Steel Creek	PEB018SB-40	0891	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1016	TCE Plume @ Steel Creek	<i>PEB018SB-40</i>	<i>0891SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445385.2959</i>	<i>3676597.262</i>
1017	TCE Plume @ Steel Creek	PEB018SB-41	0892	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1018	TCE Plume @ Steel Creek	PEB018SB-42	0893	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1019	TCE Plume @ Steel Creek	PEB018SB-43	0894	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262
1020	TCE Plume @ Steel Creek	PEB018SB-44	0895	See footnote b		REG	Deep Soil	Plug	3	445385.2959	3676597.262

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 119 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1021	TCE Plume @ Steel Creek	PEB018SB-45	0896	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1022	TCE Plume @ Steel Creek	PEB018SB-46	0897	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1023	TCE Plume @ Steel Creek	PEB018SB-47	0898	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1024	TCE Plume @ Steel Creek	PEB018SB-48	0899	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1025	TCE Plume @ Steel Creek	PEB018SB-49	0900	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1026	TCE Plume @ Steel Creek	PEB018SB-50	0901	See footnote b	REG	Deep Soil	Plug	3	445385.2959	3676597.262	
1027	TCE Plume @ Steel Creek	PEB019SB-1	0902	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1028	TCE Plume @ Steel Creek	PEB019SB-2	0903	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1029	TCE Plume @ Steel Creek	PEB019SB-3	0904	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1030	TCE Plume @ Steel Creek	PEB019SB-4	0905	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1031	TCE Plume @ Steel Creek	PEB019SB-5	0906	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1032	TCE Plume @ Steel Creek	PEB019SB-5	0906FD	See footnote b	FD	Deep Soil	Plug	3	445406.1826	3676619.455	
1033	TCE Plume @ Steel Creek	PEB019SB-6	0907	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1034	TCE Plume @ Steel Creek	PEB019SB-7	0908	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1035	TCE Plume @ Steel Creek	PEB019SB-8	0909	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1036	TCE Plume @ Steel Creek	PEB019SB-9	0910	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1037	TCE Plume @ Steel Creek	PEB019SB-10	0911	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1038	TCE Plume @ Steel Creek	PEB019SB-10	0911SPL	See footnote b	SPL	Deep Soil	Plug	4	445406.1826	3676619.455	
1039	TCE Plume @ Steel Creek	PEB019SB-11	0912	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1040	TCE Plume @ Steel Creek	PEB019SB-12	0913	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1041	TCE Plume @ Steel Creek	PEB019SB-13	0914	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1042	TCE Plume @ Steel Creek	PEB019SB-14	0915	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1043	TCE Plume @ Steel Creek	PEB019SB-15	0916	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1044	TCE Plume @ Steel Creek	PEB019SB-16	0917	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1045	TCE Plume @ Steel Creek	PEB019SB-17	0918	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1046	TCE Plume @ Steel Creek	PEB019SB-18	0919	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1047	TCE Plume @ Steel Creek	PEB019SB-19	0920	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1048	TCE Plume @ Steel Creek	PEB019SB-20	0921	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1049	TCE Plume @ Steel Creek	PEB019SB-21	0922	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1050	TCE Plume @ Steel Creek	PEB019SB-22	0923	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1051	TCE Plume @ Steel Creek	PEB019SB-23	0924	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1052	TCE Plume @ Steel Creek	PEB019SB-24	0925	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1053	TCE Plume @ Steel Creek	PEB019SB-25	0926	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1054	TCE Plume @ Steel Creek	PEB019SB-25	0926FD	See footnote b	FD	Deep Soil	Plug	3	445406.1826	3676619.455	
1055	TCE Plume @ Steel Creek	PEB019SB-26	0927	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1056	TCE Plume @ Steel Creek	PEB019SB-27	0928	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1057	TCE Plume @ Steel Creek	PEB019SB-28	0929	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1058	TCE Plume @ Steel Creek	PEB019SB-29	0930	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1059	TCE Plume @ Steel Creek	PEB019SB-29	0930SPL	See footnote b	SPL	Deep Soil	Plug	4	445406.1826	3676619.455	
1060	TCE Plume @ Steel Creek	PEB019SB-30	0931	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1061	TCE Plume @ Steel Creek	PEB019SB-31	0932	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	
1062	TCE Plume @ Steel Creek	PEB019SB-32	0933	See footnote b	REG	Deep Soil	Plug	3	445406.1826	3676619.455	

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 120 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1063	TCE Plume @ Steel Creek	PEB0195B-33	0934	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1064	TCE Plume @ Steel Creek	PEB0195B-34	0935	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1065	TCE Plume @ Steel Creek	PEB0195B-35	0936	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1066	TCE Plume @ Steel Creek	<i>PEB0195B-35</i>	<i>0936FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445406.1826</i>	<i>3676619.455</i>
1067	TCE Plume @ Steel Creek	PEB0195B-36	0937	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1068	TCE Plume @ Steel Creek	PEB0195B-37	0938	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1069	TCE Plume @ Steel Creek	PEB0195B-38	0939	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1070	TCE Plume @ Steel Creek	PEB0195B-39	0940	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1071	TCE Plume @ Steel Creek	PEB0195B-40	0941	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1072	TCE Plume @ Steel Creek	<i>PEB0195B-40</i>	<i>0941RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445406.1826</i>	<i>3676619.455</i>
1073	TCE Plume @ Steel Creek	PEB0195B-41	0942	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1074	TCE Plume @ Steel Creek	PEB0195B-42	0943	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1075	TCE Plume @ Steel Creek	PEB0195B-43	0944	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1076	TCE Plume @ Steel Creek	PEB0195B-44	0945	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1077	TCE Plume @ Steel Creek	PEB0195B-45	0946	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1078	TCE Plume @ Steel Creek	<i>PEB0195B-45</i>	<i>0946FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445406.1826</i>	<i>3676619.455</i>
1079	TCE Plume @ Steel Creek	PEB0195B-46	0947	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1080	TCE Plume @ Steel Creek	PEB0195B-47	0948	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1081	TCE Plume @ Steel Creek	PEB0195B-48	0949	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1082	TCE Plume @ Steel Creek	PEB0195B-49	0950	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1083	TCE Plume @ Steel Creek	PEB0195B-50	0951	See footnote b		REG	Deep Soil	Plug	3	445406.1826	3676619.455
1084	TCE Plume @ Steel Creek	<i>PEB0195B-50</i>	<i>0951SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445406.1826</i>	<i>3676619.455</i>
1085	TCE Plume @ Steel Creek	PEB0205B-1	0952	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1086	TCE Plume @ Steel Creek	PEB0205B-2	0953	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1087	TCE Plume @ Steel Creek	PEB0205B-3	0954	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1088	TCE Plume @ Steel Creek	PEB0205B-4	0955	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1089	TCE Plume @ Steel Creek	PEB0205B-5	0956	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1090	TCE Plume @ Steel Creek	PEB0205B-6	0957	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1091	TCE Plume @ Steel Creek	PEB0205B-7	0958	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1092	TCE Plume @ Steel Creek	PEB0205B-8	0959	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1093	TCE Plume @ Steel Creek	PEB0205B-9	0960	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1094	TCE Plume @ Steel Creek	PEB0205B-10	0961	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1095	TCE Plume @ Steel Creek	PEB0205B-11	0962	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1096	TCE Plume @ Steel Creek	PEB0205B-12	0963	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1097	TCE Plume @ Steel Creek	PEB0205B-13	0964	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1098	TCE Plume @ Steel Creek	PEB0205B-14	0965	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1099	TCE Plume @ Steel Creek	PEB0205B-15	0966	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1100	TCE Plume @ Steel Creek	<i>PEB0205B-15</i>	<i>0966FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445425.3952</i>	<i>3676644.971</i>
1101	TCE Plume @ Steel Creek	PEB0205B-16	0967	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1102	TCE Plume @ Steel Creek	PEB0205B-17	0968	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1103	TCE Plume @ Steel Creek	PEB0205B-18	0969	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1104	TCE Plume @ Steel Creek	PEB0205B-19	0970	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 121 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1105	TCE Plume @ Steel Creek	PEB0205B-20	0971	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1106	TCE Plume @ Steel Creek	<i>PEB0205B-20</i>	<i>0971SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445425.3952</i>	<i>3676644.971</i>
1107	TCE Plume @ Steel Creek	PEB0205B-21	0972	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1108	TCE Plume @ Steel Creek	PEB0205B-22	0973	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1109	TCE Plume @ Steel Creek	PEB0205B-23	0974	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1110	TCE Plume @ Steel Creek	PEB0205B-24	0975	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1111	TCE Plume @ Steel Creek	PEB0205B-25	0976	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1112	TCE Plume @ Steel Creek	<i>PEB0205B-25</i>	<i>0976FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445425.3952</i>	<i>3676644.971</i>
1113	TCE Plume @ Steel Creek	PEB0205B-26	0977	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1114	TCE Plume @ Steel Creek	PEB0205B-27	0978	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1115	TCE Plume @ Steel Creek	PEB0205B-28	0979	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1116	TCE Plume @ Steel Creek	PEB0205B-29	0980	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1117	TCE Plume @ Steel Creek	PEB0205B-30	0981	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1118	TCE Plume @ Steel Creek	<i>PEB0205B-30</i>	<i>0981RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445425.3952</i>	<i>3676644.971</i>
1119	TCE Plume @ Steel Creek	PEB0205B-31	0982	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1120	TCE Plume @ Steel Creek	PEB0205B-32	0983	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1121	TCE Plume @ Steel Creek	PEB0205B-33	0984	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1122	TCE Plume @ Steel Creek	PEB0205B-34	0985	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1123	TCE Plume @ Steel Creek	PEB0205B-35	0986	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1124	TCE Plume @ Steel Creek	<i>PEB0205B-35</i>	<i>0986FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445425.3952</i>	<i>3676644.971</i>
1125	TCE Plume @ Steel Creek	PEB0205B-36	0987	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1126	TCE Plume @ Steel Creek	PEB0205B-37	0988	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1127	TCE Plume @ Steel Creek	PEB0205B-38	0989	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1128	TCE Plume @ Steel Creek	PEB0205B-39	0990	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1129	TCE Plume @ Steel Creek	PEB0205B-40	0991	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1130	TCE Plume @ Steel Creek	<i>PEB0205B-40</i>	<i>0991SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445425.3952</i>	<i>3676644.971</i>
1131	TCE Plume @ Steel Creek	PEB0205B-41	0992	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1132	TCE Plume @ Steel Creek	PEB0205B-42	0993	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1133	TCE Plume @ Steel Creek	PEB0205B-43	0994	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1134	TCE Plume @ Steel Creek	PEB0205B-44	0995	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1135	TCE Plume @ Steel Creek	PEB0205B-45	0996	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1136	TCE Plume @ Steel Creek	PEB0205B-46	0997	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1137	TCE Plume @ Steel Creek	PEB0205B-47	0998	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1138	TCE Plume @ Steel Creek	PEB0205B-48	0999	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1139	TCE Plume @ Steel Creek	PEB0205B-49	1000	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1140	TCE Plume @ Steel Creek	PEB0205B-50	1001	See footnote b		REG	Deep Soil	Plug	3	445425.3952	3676644.971
1141	TCE Plume @ Steel Creek	PEB0215B-1	1002	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1142	TCE Plume @ Steel Creek	PEB0215B-2	1003	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1143	TCE Plume @ Steel Creek	PEB0215B-3	1004	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1144	TCE Plume @ Steel Creek	PEB0215B-4	1005	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1145	TCE Plume @ Steel Creek	PEB0215B-5	1006	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1146	TCE Plume @ Steel Creek	<i>PEB0215B-5</i>	<i>1006FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445451.4152</i>	<i>3676659.916</i>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 122 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1147	TCE Plume @ Steel Creek	PEB021SB-6	1007	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1148	TCE Plume @ Steel Creek	PEB021SB-7	1008	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1149	TCE Plume @ Steel Creek	PEB021SB-8	1009	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1150	TCE Plume @ Steel Creek	PEB021SB-9	1010	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1151	TCE Plume @ Steel Creek	PEB021SB-10	1011	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1152	TCE Plume @ Steel Creek	PEB021SB-10	1011SPL	See footnote b		SPL	Deep Soil	Plug	4	445451.4152	3676659.916
1153	TCE Plume @ Steel Creek	PEB021SB-11	1012	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1154	TCE Plume @ Steel Creek	PEB021SB-12	1013	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1155	TCE Plume @ Steel Creek	PEB021SB-13	1014	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1156	TCE Plume @ Steel Creek	PEB021SB-14	1015	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1157	TCE Plume @ Steel Creek	PEB021SB-15	1016	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1158	TCE Plume @ Steel Creek	PEB021SB-15	1016FB	See footnote b		FB	Deep Soil	Plug	3	445451.4152	3676659.916
1159	TCE Plume @ Steel Creek	PEB021SB-16	1017	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1160	TCE Plume @ Steel Creek	PEB021SB-17	1018	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1161	TCE Plume @ Steel Creek	PEB021SB-18	1019	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1162	TCE Plume @ Steel Creek	PEB021SB-19	1020	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1163	TCE Plume @ Steel Creek	PEB021SB-20	1021	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1164	TCE Plume @ Steel Creek	PEB021SB-20	1021RB	See footnote b		RB	Deep Soil	Plug	3	445451.4152	3676659.916
1165	TCE Plume @ Steel Creek	PEB021SB-21	1022	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1166	TCE Plume @ Steel Creek	PEB021SB-22	1023	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1167	TCE Plume @ Steel Creek	PEB021SB-23	1024	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1168	TCE Plume @ Steel Creek	PEB021SB-24	1025	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1169	TCE Plume @ Steel Creek	PEB021SB-25	1026	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1170	TCE Plume @ Steel Creek	PEB021SB-25	1026FD	See footnote b		FD	Deep Soil	Plug	3	445451.4152	3676659.916
1171	TCE Plume @ Steel Creek	PEB021SB-26	1027	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1172	TCE Plume @ Steel Creek	PEB021SB-27	1028	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1173	TCE Plume @ Steel Creek	PEB021SB-28	1029	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1174	TCE Plume @ Steel Creek	PEB021SB-29	1030	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1175	TCE Plume @ Steel Creek	PEB021SB-30	1031	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1176	TCE Plume @ Steel Creek	PEB021SB-30	1032SPL	See footnote b		SPL	Deep Soil	Plug	4	445451.4152	3676659.916
1177	TCE Plume @ Steel Creek	PEB021SB-31	1032	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1178	TCE Plume @ Steel Creek	PEB021SB-32	1033	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1179	TCE Plume @ Steel Creek	PEB021SB-33	1034	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1180	TCE Plume @ Steel Creek	PEB021SB-34	1035	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1181	TCE Plume @ Steel Creek	PEB021SB-35	1036	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1182	TCE Plume @ Steel Creek	PEB021SB-36	1037	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1183	TCE Plume @ Steel Creek	PEB021SB-37	1038	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1184	TCE Plume @ Steel Creek	PEB021SB-38	1039	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1185	TCE Plume @ Steel Creek	PEB021SB-39	1040	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1186	TCE Plume @ Steel Creek	PEB021SB-40	1041	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1187	TCE Plume @ Steel Creek	PEB021SB-41	1042	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1188	TCE Plume @ Steel Creek	PEB021SB-42	1043	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 123 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1189	TCE Plume @ Steel Creek	PEB021SB-43	1044	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1190	TCE Plume @ Steel Creek	PEB021SB-44	1045	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1191	TCE Plume @ Steel Creek	PEB021SB-45	1046	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1192	TCE Plume @ Steel Creek	<i>PEB021SB-45</i>	<i>1046FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445451.4152</i>	<i>3676659.916</i>
1193	TCE Plume @ Steel Creek	PEB021SB-46	1047	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1194	TCE Plume @ Steel Creek	PEB021SB-47	1048	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1195	TCE Plume @ Steel Creek	PEB021SB-48	1049	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1196	TCE Plume @ Steel Creek	PEB021SB-49	1050	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1197	TCE Plume @ Steel Creek	PEB021SB-50	1051	See footnote b		REG	Deep Soil	Plug	3	445451.4152	3676659.916
1198	TCE Plume @ Steel Creek	<i>PEB021SB-50</i>	<i>1051SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445451.4152</i>	<i>3676659.916</i>
1199	TCE Plume @ Steel Creek	PEB022SB-1	1052	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1200	TCE Plume @ Steel Creek	PEB022SB-2	1053	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1201	TCE Plume @ Steel Creek	PEB022SB-3	1054	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1202	TCE Plume @ Steel Creek	PEB022SB-4	1055	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1203	TCE Plume @ Steel Creek	PEB022SB-5	1056	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1204	TCE Plume @ Steel Creek	<i>PEB022SB-5</i>	<i>1056FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445344.7702</i>	<i>3676469.693</i>
1205	TCE Plume @ Steel Creek	PEB022SB-6	1057	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1206	TCE Plume @ Steel Creek	PEB022SB-7	1058	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1207	TCE Plume @ Steel Creek	PEB022SB-8	1059	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1208	TCE Plume @ Steel Creek	PEB022SB-9	1060	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1209	TCE Plume @ Steel Creek	PEB022SB-10	1061	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1210	TCE Plume @ Steel Creek	<i>PEB022SB-10</i>	<i>1061RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445344.7702</i>	<i>3676469.693</i>
1211	TCE Plume @ Steel Creek	PEB022SB-11	1062	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1212	TCE Plume @ Steel Creek	PEB022SB-12	1063	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1213	TCE Plume @ Steel Creek	PEB022SB-13	1064	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1214	TCE Plume @ Steel Creek	PEB022SB-14	1065	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1215	TCE Plume @ Steel Creek	PEB022SB-15	1066	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1216	TCE Plume @ Steel Creek	<i>PEB022SB-15</i>	<i>1066FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445344.7702</i>	<i>3676469.693</i>
1217	TCE Plume @ Steel Creek	PEB022SB-16	1067	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1218	TCE Plume @ Steel Creek	PEB022SB-17	1068	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1219	TCE Plume @ Steel Creek	PEB022SB-18	1069	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1220	TCE Plume @ Steel Creek	PEB022SB-19	1070	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1221	TCE Plume @ Steel Creek	PEB022SB-20	1071	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1222	TCE Plume @ Steel Creek	<i>PEB022SB-20</i>	<i>1071SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445344.7702</i>	<i>3676469.693</i>
1223	TCE Plume @ Steel Creek	PEB022SB-21	1072	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1224	TCE Plume @ Steel Creek	PEB022SB-22	1073	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1225	TCE Plume @ Steel Creek	PEB022SB-23	1074	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1226	TCE Plume @ Steel Creek	PEB022SB-24	1075	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1227	TCE Plume @ Steel Creek	PEB022SB-25	1076	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1228	TCE Plume @ Steel Creek	PEB022SB-26	1077	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1229	TCE Plume @ Steel Creek	PEB022SB-27	1078	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1230	TCE Plume @ Steel Creek	PEB022SB-28	1079	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 124 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1231	TCE Plume @ Steel Creek	PEB0225B-29	1080	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1232	TCE Plume @ Steel Creek	PEB0225B-30	1081	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1233	TCE Plume @ Steel Creek	PEB0225B-31	1082	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1234	TCE Plume @ Steel Creek	PEB0225B-32	1083	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1235	TCE Plume @ Steel Creek	PEB0225B-33	1084	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1236	TCE Plume @ Steel Creek	PEB0225B-34	1085	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1237	TCE Plume @ Steel Creek	PEB0225B-35	1086	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1238	TCE Plume @ Steel Creek	PEB0225B-35	1086FD	See footnote b		FD	Deep Soil	Plug	3	445344.7702	3676469.693
1239	TCE Plume @ Steel Creek	PEB0225B-36	1087	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1240	TCE Plume @ Steel Creek	PEB0225B-37	1088	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1241	TCE Plume @ Steel Creek	PEB0225B-38	1089	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1242	TCE Plume @ Steel Creek	PEB0225B-39	1090	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1243	TCE Plume @ Steel Creek	PEB0225B-40	1091	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1244	TCE Plume @ Steel Creek	PEB0225B-40	1091SPL	See footnote b		SPL	Deep Soil	Plug	4	445344.7702	3676469.693
1245	TCE Plume @ Steel Creek	PEB0225B-41	1092	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1246	TCE Plume @ Steel Creek	PEB0225B-42	1093	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1247	TCE Plume @ Steel Creek	PEB0225B-43	1094	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1248	TCE Plume @ Steel Creek	PEB0225B-44	1095	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1249	TCE Plume @ Steel Creek	PEB0225B-45	1096	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1250	TCE Plume @ Steel Creek	PEB0225B-46	1097	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1251	TCE Plume @ Steel Creek	PEB0225B-47	1098	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1252	TCE Plume @ Steel Creek	PEB0225B-48	1099	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1253	TCE Plume @ Steel Creek	PEB0225B-49	1100	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1254	TCE Plume @ Steel Creek	PEB0225B-50	1101	See footnote b		REG	Deep Soil	Plug	3	445344.7702	3676469.693
1255	TCE Plume @ Steel Creek	PEB0235B-1	1102	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1256	TCE Plume @ Steel Creek	PEB0235B-2	1103	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1257	TCE Plume @ Steel Creek	PEB0235B-3	1104	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1258	TCE Plume @ Steel Creek	PEB0235B-4	1105	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1259	TCE Plume @ Steel Creek	PEB0235B-5	1106	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1260	TCE Plume @ Steel Creek	PEB0235B-5	1106FD	See footnote b		FD	Deep Soil	Plug	3	445364.6502	3676526.638
1261	TCE Plume @ Steel Creek	PEB0235B-6	1107	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1262	TCE Plume @ Steel Creek	PEB0235B-7	1108	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1263	TCE Plume @ Steel Creek	PEB0235B-8	1109	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1264	TCE Plume @ Steel Creek	PEB0235B-9	1110	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1265	TCE Plume @ Steel Creek	PEB0235B-10	1111	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1266	TCE Plume @ Steel Creek	PEB0235B-10	1111SPL	See footnote b		SPL	Deep Soil	Plug	4	445364.6502	3676526.638
1267	TCE Plume @ Steel Creek	PEB0235B-11	1112	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1268	TCE Plume @ Steel Creek	PEB0235B-12	1113	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1269	TCE Plume @ Steel Creek	PEB0235B-13	1114	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1270	TCE Plume @ Steel Creek	PEB0235B-14	1115	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1271	TCE Plume @ Steel Creek	PEB0235B-15	1116	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1272	TCE Plume @ Steel Creek	PEB0235B-16	1117	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 125 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1273	TCE Plume @ Steel Creek	PEB0235B-17	1118	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1274	TCE Plume @ Steel Creek	PEB0235B-18	1119	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1275	TCE Plume @ Steel Creek	PEB0235B-19	1120	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1276	TCE Plume @ Steel Creek	PEB0235B-20	1121	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1277	TCE Plume @ Steel Creek	PEB0235B-21	1122	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1278	TCE Plume @ Steel Creek	PEB0235B-22	1123	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1279	TCE Plume @ Steel Creek	PEB0235B-23	1124	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1280	TCE Plume @ Steel Creek	PEB0235B-24	1125	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1281	TCE Plume @ Steel Creek	PEB0235B-25	1126	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1282	TCE Plume @ Steel Creek	PEB0235B-25	1126FD	See footnote b		FD	Deep Soil	Plug	3	445364.6502	3676526.638
1283	TCE Plume @ Steel Creek	PEB0235B-26	1127	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1284	TCE Plume @ Steel Creek	PEB0235B-27	1128	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1285	TCE Plume @ Steel Creek	PEB0235B-28	1129	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1286	TCE Plume @ Steel Creek	PEB0235B-29	1130	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1287	TCE Plume @ Steel Creek	PEB0235B-29	1130SPL	See footnote b		SPL	Deep Soil	Plug	4	445364.6502	3676526.638
1288	TCE Plume @ Steel Creek	PEB0235B-30	1131	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1289	TCE Plume @ Steel Creek	PEB0235B-31	1132	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1290	TCE Plume @ Steel Creek	PEB0235B-32	1133	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1291	TCE Plume @ Steel Creek	PEB0235B-33	1134	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1292	TCE Plume @ Steel Creek	PEB0235B-34	1135	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1293	TCE Plume @ Steel Creek	PEB0235B-35	1136	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1294	TCE Plume @ Steel Creek	PEB0235B-35	1136FB	See footnote b		FB	Deep Soil	Plug	3	445364.6502	3676526.638
1295	TCE Plume @ Steel Creek	PEB0235B-36	1137	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1296	TCE Plume @ Steel Creek	PEB0235B-37	1138	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1297	TCE Plume @ Steel Creek	PEB0235B-38	1139	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1298	TCE Plume @ Steel Creek	PEB0235B-39	1140	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1299	TCE Plume @ Steel Creek	PEB0235B-40	1141	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1300	TCE Plume @ Steel Creek	PEB0235B-40	1141RB	See footnote b		RB	Deep Soil	Plug	3	445364.6502	3676526.638
1301	TCE Plume @ Steel Creek	PEB0235B-41	1142	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1302	TCE Plume @ Steel Creek	PEB0235B-42	1143	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1303	TCE Plume @ Steel Creek	PEB0235B-43	1144	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1304	TCE Plume @ Steel Creek	PEB0235B-44	1145	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1305	TCE Plume @ Steel Creek	PEB0235B-45	1146	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1306	TCE Plume @ Steel Creek	PEB0235B-45	1146FD	See footnote b		FD	Deep Soil	Plug	3	445364.6502	3676526.638
1307	TCE Plume @ Steel Creek	PEB0235B-46	1147	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1308	TCE Plume @ Steel Creek	PEB0235B-47	1148	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1309	TCE Plume @ Steel Creek	PEB0235B-48	1149	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1310	TCE Plume @ Steel Creek	PEB0235B-49	1150	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1311	TCE Plume @ Steel Creek	PEB0235B-50	1151	See footnote b		REG	Deep Soil	Plug	3	445364.6502	3676526.638
1312	TCE Plume @ Steel Creek	PEB0235B-50	1151SPL	See footnote b		SPL	Deep Soil	Plug	4	445364.6502	3676526.638
1313	TCE Plume @ Steel Creek	PEB0245B-1	1152	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1314	TCE Plume @ Steel Creek	PEB0245B-2	1153	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 126 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1315	TCE Plume @ Steel Creek	PEB024SB-3	1154	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1316	TCE Plume @ Steel Creek	PEB024SB-4	1155	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1317	TCE Plume @ Steel Creek	PEB024SB-5	1156	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1318	TCE Plume @ Steel Creek	PEB024SB-6	1157	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1319	TCE Plume @ Steel Creek	PEB024SB-7	1158	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1320	TCE Plume @ Steel Creek	PEB024SB-8	1159	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1321	TCE Plume @ Steel Creek	PEB024SB-9	1160	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1322	TCE Plume @ Steel Creek	PEB024SB-10	1161	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1323	TCE Plume @ Steel Creek	PEB024SB-11	1162	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1324	TCE Plume @ Steel Creek	PEB024SB-12	1163	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1325	TCE Plume @ Steel Creek	PEB024SB-13	1164	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1326	TCE Plume @ Steel Creek	PEB024SB-14	1165	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1327	TCE Plume @ Steel Creek	PEB024SB-15	1166	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1328	TCE Plume @ Steel Creek	PEB024SB-15	1166FD	See footnote b		FD	Deep Soil	Plug	3	445402.7318	3676573.662
1329	TCE Plume @ Steel Creek	PEB024SB-16	1167	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1330	TCE Plume @ Steel Creek	PEB024SB-17	1168	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1331	TCE Plume @ Steel Creek	PEB024SB-18	1169	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1332	TCE Plume @ Steel Creek	PEB024SB-19	1170	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1333	TCE Plume @ Steel Creek	PEB024SB-20	1171	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1334	TCE Plume @ Steel Creek	PEB024SB-20	1171SPL	See footnote b		SPL	Deep Soil	Plug	4	445402.7318	3676573.662
1335	TCE Plume @ Steel Creek	PEB024SB-21	1172	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1336	TCE Plume @ Steel Creek	PEB024SB-22	1173	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1337	TCE Plume @ Steel Creek	PEB024SB-23	1174	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1338	TCE Plume @ Steel Creek	PEB024SB-24	1175	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1339	TCE Plume @ Steel Creek	PEB024SB-25	1176	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1340	TCE Plume @ Steel Creek	PEB024SB-25	1176FB	See footnote b		FB	Deep Soil	Plug	3	445402.7318	3676573.662
1341	TCE Plume @ Steel Creek	PEB024SB-26	1177	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1342	TCE Plume @ Steel Creek	PEB024SB-27	1178	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1343	TCE Plume @ Steel Creek	PEB024SB-28	1179	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1344	TCE Plume @ Steel Creek	PEB024SB-29	1180	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1345	TCE Plume @ Steel Creek	PEB024SB-30	1181	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1346	TCE Plume @ Steel Creek	PEB024SB-30	1181RB	See footnote b		RB	Deep Soil	Plug	3	445402.7318	3676573.662
1347	TCE Plume @ Steel Creek	PEB024SB-31	1182	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1348	TCE Plume @ Steel Creek	PEB024SB-32	1183	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1349	TCE Plume @ Steel Creek	PEB024SB-33	1184	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1350	TCE Plume @ Steel Creek	PEB024SB-34	1185	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1351	TCE Plume @ Steel Creek	PEB024SB-35	1186	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1352	TCE Plume @ Steel Creek	PEB024SB-35	1186FD	See footnote b		FD	Deep Soil	Plug	3	445402.7318	3676573.662
1353	TCE Plume @ Steel Creek	PEB024SB-36	1187	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1354	TCE Plume @ Steel Creek	PEB024SB-37	1188	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1355	TCE Plume @ Steel Creek	PEB024SB-38	1189	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1356	TCE Plume @ Steel Creek	PEB024SB-39	1190	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 127 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1357	TCE Plume @ Steel Creek	PEB0245B-40	1191	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1358	TCE Plume @ Steel Creek	<i>PEB0245B-40</i>	<i>1191SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445402.7318</i>	<i>3676573.662</i>
1359	TCE Plume @ Steel Creek	PEB0245B-41	1192	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1360	TCE Plume @ Steel Creek	PEB0245B-42	1193	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1361	TCE Plume @ Steel Creek	PEB0245B-43	1194	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1362	TCE Plume @ Steel Creek	PEB0245B-44	1195	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1363	TCE Plume @ Steel Creek	PEB0245B-45	1196	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1364	TCE Plume @ Steel Creek	PEB0245B-46	1197	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1365	TCE Plume @ Steel Creek	PEB0245B-47	1198	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1366	TCE Plume @ Steel Creek	PEB0245B-48	1199	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1367	TCE Plume @ Steel Creek	PEB0245B-49	1200	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1368	TCE Plume @ Steel Creek	PEB0245B-50	1201	See footnote b		REG	Deep Soil	Plug	3	445402.7318	3676573.662
1369	TCE Plume @ Steel Creek	PEB0255B-1	1202	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1370	TCE Plume @ Steel Creek	PEB0255B-2	1203	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1371	TCE Plume @ Steel Creek	PEB0255B-3	1204	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1372	TCE Plume @ Steel Creek	PEB0255B-4	1205	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1373	TCE Plume @ Steel Creek	PEB0255B-5	1206	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1374	TCE Plume @ Steel Creek	<i>PEB0255B-5</i>	<i>1206FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445477.8067</i>	<i>3676510.513</i>
1375	TCE Plume @ Steel Creek	PEB0255B-6	1207	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1376	TCE Plume @ Steel Creek	PEB0255B-7	1208	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1377	TCE Plume @ Steel Creek	PEB0255B-8	1209	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1378	TCE Plume @ Steel Creek	PEB0255B-9	1210	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1379	TCE Plume @ Steel Creek	PEB0255B-10	1211	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1380	TCE Plume @ Steel Creek	<i>PEB0255B-10</i>	<i>1211SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445477.8067</i>	<i>3676510.513</i>
1381	TCE Plume @ Steel Creek	PEB0255B-11	1212	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1382	TCE Plume @ Steel Creek	PEB0255B-12	1213	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1383	TCE Plume @ Steel Creek	PEB0255B-13	1214	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1384	TCE Plume @ Steel Creek	PEB0255B-14	1215	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1385	TCE Plume @ Steel Creek	PEB0255B-15	1216	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1386	TCE Plume @ Steel Creek	<i>PEB0255B-15</i>	<i>1216FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445477.8067</i>	<i>3676510.513</i>
1387	TCE Plume @ Steel Creek	PEB0255B-16	1217	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1388	TCE Plume @ Steel Creek	PEB0255B-17	1218	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1389	TCE Plume @ Steel Creek	PEB0255B-18	1219	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1390	TCE Plume @ Steel Creek	PEB0255B-19	1220	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1391	TCE Plume @ Steel Creek	PEB0255B-20	1221	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1392	TCE Plume @ Steel Creek	<i>PEB0255B-20</i>	<i>1221RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445477.8067</i>	<i>3676510.513</i>
1393	TCE Plume @ Steel Creek	PEB0255B-21	1222	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1394	TCE Plume @ Steel Creek	PEB0255B-22	1223	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1395	TCE Plume @ Steel Creek	PEB0255B-23	1224	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1396	TCE Plume @ Steel Creek	PEB0255B-24	1225	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1397	TCE Plume @ Steel Creek	PEB0255B-25	1226	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1398	TCE Plume @ Steel Creek	<i>PEB0255B-25</i>	<i>1226FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445477.8067</i>	<i>3676510.513</i>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 128 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1399	TCE Plume @ Steel Creek	PEB0255B-26	1227	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1400	TCE Plume @ Steel Creek	PEB0255B-27	1228	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1401	TCE Plume @ Steel Creek	PEB0255B-28	1229	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1402	TCE Plume @ Steel Creek	PEB0255B-29	1230	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1403	TCE Plume @ Steel Creek	PEB0255B-30	1231	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1404	TCE Plume @ Steel Creek	<i>PEB0255B-30</i>	<i>1231SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445477.8067</i>	<i>3676510.513</i>
1405	TCE Plume @ Steel Creek	PEB0255B-31	1232	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1406	TCE Plume @ Steel Creek	PEB0255B-32	1233	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1407	TCE Plume @ Steel Creek	PEB0255B-33	1234	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1408	TCE Plume @ Steel Creek	PEB0255B-34	1235	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1409	TCE Plume @ Steel Creek	PEB0255B-35	1236	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1410	TCE Plume @ Steel Creek	PEB0255B-36	1237	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1411	TCF Plume @ Steel Creek	PEB0255B-37	1238	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1412	TCE Plume @ Steel Creek	PEB0255B-38	1239	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1413	TCE Plume @ Steel Creek	PEB0255B-39	1240	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1414	TCE Plume @ Steel Creek	PEB0255B-40	1241	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1415	TCE Plume @ Steel Creek	PEB0255B-41	1242	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1416	TCE Plume @ Steel Creek	PEB0255B-42	1243	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1417	TCE Plume @ Steel Creek	PEB0255B-43	1244	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1418	TCE Plume @ Steel Creek	PEB0255B-44	1245	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1419	TCE Plume @ Steel Creek	PEB0255B-45	1246	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1420	TCE Plume @ Steel Creek	<i>PEB0255B-45</i>	<i>1246FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445477.8067</i>	<i>3676510.513</i>
1421	TCE Plume @ Steel Creek	PEB0255B-46	1247	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1422	TCE Plume @ Steel Creek	PEB0255B-47	1248	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1423	TCE Plume @ Steel Creek	PEB0255B-48	1249	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1424	TCE Plume @ Steel Creek	PEB0255B-49	1250	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1425	TCE Plume @ Steel Creek	PEB0255B-50	1251	See footnote b		REG	Deep Soil	Plug	3	445477.8067	3676510.513
1426	TCE Plume @ Steel Creek	<i>PEB0255B-50</i>	<i>1251SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445477.8067</i>	<i>3676510.513</i>
1427	TCE Plume @ Steel Creek	PEB0265B-1	1252	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1428	TCE Plume @ Steel Creek	PEB0265B-2	1253	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1429	TCE Plume @ Steel Creek	PEB0265B-3	1254	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1430	TCE Plume @ Steel Creek	PEB0265B-4	1255	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1431	TCE Plume @ Steel Creek	PEB0265B-5	1256	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1432	TCE Plume @ Steel Creek	<i>PEB0265B-5</i>	<i>1256FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445486.3926</i>	<i>3676539.758</i>
1433	TCE Plume @ Steel Creek	PEB0265B-6	1257	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1434	TCE Plume @ Steel Creek	PEB0265B-7	1258	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1435	TCE Plume @ Steel Creek	PEB0265B-8	1259	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1436	TCE Plume @ Steel Creek	PEB0265B-9	1260	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1437	TCE Plume @ Steel Creek	PEB0265B-10	1261	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1438	TCE Plume @ Steel Creek	<i>PEB0265B-10</i>	<i>1261RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445486.3926</i>	<i>3676539.758</i>
1439	TCE Plume @ Steel Creek	PEB0265B-11	1262	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1440	TCE Plume @ Steel Creek	PEB0265B-12	1263	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1441	TCE Plume @ Steel Creek	PEB0265B-13	1264	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1442	TCE Plume @ Steel Creek	PEB0265B-14	1265	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1443	TCE Plume @ Steel Creek	PEB0265B-15	1266	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1444	TCE Plume @ Steel Creek	<i>PEB0265B-15</i>	<i>1266FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445486.3926</i>	<i>3676539.758</i>
1445	TCE Plume @ Steel Creek	PEB0265B-16	1267	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1446	TCE Plume @ Steel Creek	PEB0265B-17	1268	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1447	TCE Plume @ Steel Creek	PEB0265B-18	1269	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1448	TCE Plume @ Steel Creek	PEB0265B-19	1270	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1449	TCE Plume @ Steel Creek	PEB0265B-20	1271	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1450	TCE Plume @ Steel Creek	<i>PEB0265B-20</i>	<i>1271SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445486.3926</i>	<i>3676539.758</i>
1451	TCE Plume @ Steel Creek	PEB0265B-21	1272	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1452	TCE Plume @ Steel Creek	PEB0265B-22	1273	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1453	TCE Plume @ Steel Creek	PEB0265B-23	1274	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1454	TCE Plume @ Steel Creek	PEB0265B-24	1275	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1455	TCE Plume @ Steel Creek	PEB0265B-25	1276	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1456	TCE Plume @ Steel Creek	PEB0265B-26	1277	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1457	TCE Plume @ Steel Creek	PEB0265B-27	1278	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1458	TCE Plume @ Steel Creek	PEB0265B-28	1279	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1459	TCE Plume @ Steel Creek	PEB0265B-29	1280	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1460	TCE Plume @ Steel Creek	PEB0265B-30	1281	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1461	TCE Plume @ Steel Creek	PEB0265B-31	1282	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1462	TCE Plume @ Steel Creek	PEB0265B-32	1283	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1463	TCE Plume @ Steel Creek	PEB0265B-33	1284	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1464	TCE Plume @ Steel Creek	PEB0265B-34	1285	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1465	TCE Plume @ Steel Creek	PEB0265B-35	1286	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1466	TCE Plume @ Steel Creek	<i>PEB0265B-35</i>	<i>1286FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445486.3926</i>	<i>3676539.758</i>
1467	TCE Plume @ Steel Creek	PEB0265B-36	1287	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1468	TCE Plume @ Steel Creek	PEB0265B-37	1288	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1469	TCE Plume @ Steel Creek	PEB0265B-38	1289	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1470	TCE Plume @ Steel Creek	PEB0265B-39	1290	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1471	TCE Plume @ Steel Creek	PEB0265B-40	1291	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1472	TCE Plume @ Steel Creek	<i>PEB0265B-40</i>	<i>1291SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445486.3926</i>	<i>3676539.758</i>
1473	TCE Plume @ Steel Creek	PEB0265B-41	1292	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1474	TCE Plume @ Steel Creek	PEB0265B-42	1293	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1475	TCE Plume @ Steel Creek	PEB0265B-43	1294	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1476	TCE Plume @ Steel Creek	PEB0265B-44	1295	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1477	TCE Plume @ Steel Creek	PEB0265B-45	1296	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1478	TCE Plume @ Steel Creek	PEB0265B-46	1297	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1479	TCE Plume @ Steel Creek	PEB0265B-47	1298	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1480	TCE Plume @ Steel Creek	PEB0265B-48	1299	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1481	TCE Plume @ Steel Creek	PEB0265B-49	1300	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758
1482	TCE Plume @ Steel Creek	PEB0265B-50	1301	See footnote b		REG	Deep Soil	Plug	3	445486.3926	3676539.758

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 130 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1483	TCE Plume @ Steel Creek	PEB0275B-1	1302	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1484	TCE Plume @ Steel Creek	PEB0275B-2	1303	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1485	TCE Plume @ Steel Creek	PEB0275B-3	1304	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1486	TCE Plume @ Steel Creek	PEB0275B-4	1305	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1487	TCE Plume @ Steel Creek	PEB0275B-5	1306	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1488	TCE Plume @ Steel Creek	<i>PEB0275B-5</i>	<i>1306FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445494.9785</i>	<i>3676569.004</i>
1489	TCE Plume @ Steel Creek	PEB0275B-6	1307	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1490	TCE Plume @ Steel Creek	PEB0275B-7	1308	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1491	TCE Plume @ Steel Creek	PEB0275B-8	1309	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1492	TCE Plume @ Steel Creek	PEB0275B-9	1310	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1493	TCE Plume @ Steel Creek	PEB0275B-10	1311	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1494	TCE Plume @ Steel Creek	<i>PEB0275B-10</i>	<i>1311SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445494.9785</i>	<i>3676569.004</i>
1495	TCE Plume @ Steel Creek	PEB0275B-11	1312	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1496	TCE Plume @ Steel Creek	PEB0275B-12	1313	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1497	TCE Plume @ Steel Creek	PEB0275B-13	1314	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1498	TCE Plume @ Steel Creek	PEB0275B-14	1315	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1499	TCE Plume @ Steel Creek	PEB0275B-15	1316	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1500	TCE Plume @ Steel Creek	PEB0275B-16	1317	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1501	TCE Plume @ Steel Creek	PEB0275B-17	1318	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1502	TCE Plume @ Steel Creek	PEB0275B-18	1319	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1503	TCE Plume @ Steel Creek	PEB0275B-19	1320	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1504	TCE Plume @ Steel Creek	PEB0275B-20	1321	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1505	TCE Plume @ Steel Creek	PEB0275B-21	1322	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1506	TCE Plume @ Steel Creek	PEB0275B-22	1323	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1507	TCE Plume @ Steel Creek	PEB0275B-23	1324	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1508	TCE Plume @ Steel Creek	PEB0275B-24	1325	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1509	TCE Plume @ Steel Creek	PEB0275B-25	1326	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1510	TCE Plume @ Steel Creek	<i>PEB0275B-25</i>	<i>1326FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445494.9785</i>	<i>3676569.004</i>
1511	TCE Plume @ Steel Creek	PEB0275B-26	1327	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1512	TCE Plume @ Steel Creek	PEB0275B-27	1328	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1513	TCE Plume @ Steel Creek	PEB0275B-28	1329	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1514	TCE Plume @ Steel Creek	PEB0275B-29	1330	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1515	TCE Plume @ Steel Creek	PEB0275B-30	1331	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1516	TCE Plume @ Steel Creek	<i>PEB0275B-30</i>	<i>1331SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445494.9785</i>	<i>3676569.004</i>
1517	TCE Plume @ Steel Creek	PEB0275B-31	1332	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1518	TCE Plume @ Steel Creek	PEB0275B-32	1333	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1519	TCE Plume @ Steel Creek	PEB0275B-33	1334	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1520	TCE Plume @ Steel Creek	PEB0275B-34	1335	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1521	TCE Plume @ Steel Creek	PEB0275B-35	1336	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1522	TCE Plume @ Steel Creek	<i>PEB0275B-35</i>	<i>1336FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445494.9785</i>	<i>3676569.004</i>
1523	TCE Plume @ Steel Creek	PEB0275B-36	1337	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1524	TCE Plume @ Steel Creek	PEB0275B-37	1338	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 131 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1525	TCE Plume @ Steel Creek	PEB0275B-38	1339	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1526	TCE Plume @ Steel Creek	PEB0275B-39	1340	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1527	TCE Plume @ Steel Creek	PEB0275B-40	1341	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1528	TCE Plume @ Steel Creek	<i>PEB0275B-40</i>	<i>1341RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445494.9785</i>	<i>3676569.004</i>
1529	TCE Plume @ Steel Creek	PEB0275B-41	1342	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1530	TCE Plume @ Steel Creek	PEB0275B-42	1343	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1531	TCE Plume @ Steel Creek	PEB0275B-43	1344	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1532	TCE Plume @ Steel Creek	PEB0275B-44	1345	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1533	TCE Plume @ Steel Creek	PEB0275B-45	1346	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1534	TCE Plume @ Steel Creek	<i>PEB0275B-45</i>	<i>1346FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445494.9785</i>	<i>3676569.004</i>
1535	TCE Plume @ Steel Creek	PEB0275B-46	1347	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1536	TCE Plume @ Steel Creek	PEB0275B-47	1348	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1537	TCE Plume @ Steel Creek	PEB0275B-48	1349	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1538	TCE Plume @ Steel Creek	PEB0275B-49	1350	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1539	TCE Plume @ Steel Creek	PEB0275B-50	1351	See footnote b		REG	Deep Soil	Plug	3	445494.9785	3676569.004
1540	TCE Plume @ Steel Creek	<i>PEB0275B-50</i>	<i>1351SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445494.9785</i>	<i>3676569.004</i>
1541	TCE Plume @ Steel Creek	PEB0285B-1	1352	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1542	TCE Plume @ Steel Creek	PEB0285B-2	1353	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1543	TCE Plume @ Steel Creek	PEB0285B-3	1354	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1544	TCE Plume @ Steel Creek	PEB0285B-4	1355	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1545	TCE Plume @ Steel Creek	PEB0285B-5	1356	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1546	TCE Plume @ Steel Creek	PEB0285B-6	1357	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1547	TCE Plume @ Steel Creek	PEB0285B-7	1358	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1548	TCE Plume @ Steel Creek	PEB0285B-8	1359	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1549	TCE Plume @ Steel Creek	PEB0285B-9	1360	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1550	TCE Plume @ Steel Creek	PEB0285B-10	1361	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1551	TCE Plume @ Steel Creek	PEB0285B-11	1362	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1552	TCE Plume @ Steel Creek	PEB0285B-12	1363	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1553	TCE Plume @ Steel Creek	PEB0285B-13	1364	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1554	TCE Plume @ Steel Creek	PEB0285B-14	1365	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1555	TCE Plume @ Steel Creek	PEB0285B-15	1366	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1556	TCE Plume @ Steel Creek	<i>PEB0285B-15</i>	<i>1366FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445503.5644</i>	<i>3676598.25</i>
1557	TCE Plume @ Steel Creek	PEB0285B-16	1367	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1558	TCE Plume @ Steel Creek	PEB0285B-17	1368	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1559	TCE Plume @ Steel Creek	PEB0285B-18	1369	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1560	TCE Plume @ Steel Creek	PEB0285B-19	1370	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1561	TCE Plume @ Steel Creek	PEB0285B-20	1371	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1562	TCE Plume @ Steel Creek	<i>PEB0285B-20</i>	<i>1371SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445503.5644</i>	<i>3676598.25</i>
1563	TCE Plume @ Steel Creek	PEB0285B-21	1372	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1564	TCE Plume @ Steel Creek	PEB0285B-22	1373	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1565	TCE Plume @ Steel Creek	PEB0285B-23	1374	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1566	TCE Plume @ Steel Creek	PEB0285B-24	1375	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 132 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1567	TCE Plume @ Steel Creek	PEB0285B-25	1376	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1568	TCE Plume @ Steel Creek	<i>PEB0285B-25</i>	<i>1376FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445503.5644</i>	<i>3676598.25</i>
1569	TCE Plume @ Steel Creek	PEB0285B-26	1377	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1570	TCE Plume @ Steel Creek	PEB0285B-27	1378	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1571	TCE Plume @ Steel Creek	PEB0285B-28	1379	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1572	TCE Plume @ Steel Creek	PEB0285B-29	1380	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1573	TCE Plume @ Steel Creek	PEB0285B-30	1381	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1574	TCE Plume @ Steel Creek	<i>PEB0285B-30</i>	<i>1381RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445503.5644</i>	<i>3676598.25</i>
1575	TCE Plume @ Steel Creek	PEB0285B-31	1382	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1576	TCE Plume @ Steel Creek	PEB0285B-32	1383	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1577	TCE Plume @ Steel Creek	PEB0285B-33	1384	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1578	TCE Plume @ Steel Creek	PEB0285B-34	1385	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1579	TCF Plume @ Steel Creek	PEB0285B-35	1386	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1580	TCE Plume @ Steel Creek	<i>PEB0285B-35</i>	<i>1386FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445503.5644</i>	<i>3676598.25</i>
1581	TCE Plume @ Steel Creek	PEB0285B-36	1387	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1582	TCE Plume @ Steel Creek	PEB0285B-37	1388	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1583	TCE Plume @ Steel Creek	PEB0285B-38	1389	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1584	TCE Plume @ Steel Creek	PEB0285B-39	1390	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1585	TCE Plume @ Steel Creek	PEB0285B-40	1391	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1586	TCE Plume @ Steel Creek	<i>PEB0285B-40</i>	<i>1391SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445503.5644</i>	<i>3676598.25</i>
1587	TCE Plume @ Steel Creek	PEB0285B-41	1392	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1588	TCE Plume @ Steel Creek	PEB0285B-42	1393	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1589	TCE Plume @ Steel Creek	PEB0285B-43	1394	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1590	TCE Plume @ Steel Creek	PEB0285B-44	1395	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1591	TCE Plume @ Steel Creek	PEB0285B-45	1396	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1592	TCE Plume @ Steel Creek	PEB0285B-46	1397	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1593	TCE Plume @ Steel Creek	PEB0285B-47	1398	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1594	TCE Plume @ Steel Creek	PEB0285B-48	1399	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1595	TCE Plume @ Steel Creek	PEB0285B-49	1400	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1596	TCE Plume @ Steel Creek	PEB0285B-50	1401	See footnote b		REG	Deep Soil	Plug	3	445503.5644	3676598.25
1597	TCE Plume @ Steel Creek	PEB0295B-1	1402	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1598	TCE Plume @ Steel Creek	PEB0295B-2	1403	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1599	TCE Plume @ Steel Creek	PEB0295B-3	1404	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1600	TCE Plume @ Steel Creek	PEB0295B-4	1405	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1601	TCE Plume @ Steel Creek	PEB0295B-5	1406	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1602	TCE Plume @ Steel Creek	<i>PEB0295B-5</i>	<i>1406FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445512.1503</i>	<i>3676627.496</i>
1603	TCE Plume @ Steel Creek	PEB0295B-6	1407	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1604	TCE Plume @ Steel Creek	PEB0295B-7	1408	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1605	TCE Plume @ Steel Creek	PEB0295B-8	1409	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1606	TCE Plume @ Steel Creek	PEB0295B-9	1410	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1607	TCE Plume @ Steel Creek	PEB0295B-10	1411	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1608	TCE Plume @ Steel Creek	PEB0295B-10	1412SPL	SPL		REG	Deep Soil	Plug	3	445512.1503	3676627.496

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 133 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1609	TCE Plume @ Steel Creek	PEB029SB-11	1412	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1610	TCE Plume @ Steel Creek	PEB029SB-12	1413	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1611	TCE Plume @ Steel Creek	PEB029SB-13	1414	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1612	TCE Plume @ Steel Creek	PEB029SB-14	1415	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1613	TCE Plume @ Steel Creek	PEB029SB-15	1416	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1614	TCE Plume @ Steel Creek	<i>PEB029SB-15</i>	<i>1416FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445512.1503</i>	<i>3676627.496</i>
1615	TCE Plume @ Steel Creek	PEB029SB-16	1417	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1616	TCE Plume @ Steel Creek	PEB029SB-17	1418	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1617	TCE Plume @ Steel Creek	PEB029SB-18	1419	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1618	TCE Plume @ Steel Creek	PEB029SB-19	1420	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1619	TCE Plume @ Steel Creek	PEB029SB-20	1421	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1620	TCE Plume @ Steel Creek	<i>PEB029SB-20</i>	<i>1421RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445512.1503</i>	<i>3676627.496</i>
1621	TCE Plume @ Steel Creek	PEB029SB-21	1422	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1622	TCE Plume @ Steel Creek	PEB029SB-22	1423	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1623	TCE Plume @ Steel Creek	PEB029SB-23	1424	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1624	TCE Plume @ Steel Creek	PEB029SB-24	1425	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1625	TCE Plume @ Steel Creek	PEB029SB-25	1426	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1626	TCE Plume @ Steel Creek	<i>PEB029SB-25</i>	<i>1426FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445512.1503</i>	<i>3676627.496</i>
1627	TCE Plume @ Steel Creek	PEB029SB-26	1427	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1628	TCE Plume @ Steel Creek	PEB029SB-27	1428	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1629	TCE Plume @ Steel Creek	PEB029SB-28	1429	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1630	TCE Plume @ Steel Creek	PEB029SB-29	1430	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1631	TCE Plume @ Steel Creek	PEB029SB-30	1431	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1632	TCE Plume @ Steel Creek	<i>PEB029SB-30</i>	<i>1431SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445512.1503</i>	<i>3676627.496</i>
1633	TCE Plume @ Steel Creek	PEB029SB-31	1432	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1634	TCE Plume @ Steel Creek	PEB029SB-32	1433	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1635	TCE Plume @ Steel Creek	PEB029SB-33	1434	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1636	TCE Plume @ Steel Creek	PEB029SB-34	1435	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1637	TCE Plume @ Steel Creek	PEB029SB-35	1436	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1638	TCE Plume @ Steel Creek	PEB029SB-36	1437	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1639	TCE Plume @ Steel Creek	PEB029SB-37	1438	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1640	TCE Plume @ Steel Creek	PEB029SB-38	1439	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1641	TCE Plume @ Steel Creek	PEB029SB-39	1440	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1642	TCE Plume @ Steel Creek	PEB029SB-40	1441	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1643	TCE Plume @ Steel Creek	PEB029SB-41	1442	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1644	TCE Plume @ Steel Creek	PEB029SB-42	1443	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1645	TCE Plume @ Steel Creek	PEB029SB-43	1444	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1646	TCE Plume @ Steel Creek	PEB029SB-44	1445	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1647	TCE Plume @ Steel Creek	PEB029SB-45	1446	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1648	TCE Plume @ Steel Creek	<i>PEB029SB-45</i>	<i>1446FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445512.1503</i>	<i>3676627.496</i>
1649	TCE Plume @ Steel Creek	PEB029SB-46	1447	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1650	TCE Plume @ Steel Creek	PEB029SB-47	1448	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 134 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1651	TCE Plume @ Steel Creek	PEB0295B-48	1449	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1652	TCE Plume @ Steel Creek	PEB0295B-49	1450	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1653	TCE Plume @ Steel Creek	PEB0295B-50	1451	See footnote b		REG	Deep Soil	Plug	3	445512.1503	3676627.496
1654	TCE Plume @ Steel Creek	<i>PEB0295B-50</i>	<i>1451SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445512.1503</i>	<i>3676627.496</i>
1655	TCE Plume @ Steel Creek	PEB0305B-1	1452	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1656	TCE Plume @ Steel Creek	PEB0305B-2	1453	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1657	TCE Plume @ Steel Creek	PEB0305B-3	1454	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1658	TCE Plume @ Steel Creek	PEB0305B-4	1455	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1659	TCE Plume @ Steel Creek	PEB0305B-5	1456	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1660	TCE Plume @ Steel Creek	<i>PEB0305B-5</i>	<i>1456FB</i>	<i>See footnote b</i>		<i>FB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445520.7362</i>	<i>3676656.741</i>
1661	TCE Plume @ Steel Creek	PEB0305B-6	1457	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1662	TCE Plume @ Steel Creek	PEB0305B-7	1458	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1663	TCE Plume @ Steel Creek	PEB0305B-8	1459	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1664	TCE Plume @ Steel Creek	PEB0305B-9	1460	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1665	TCE Plume @ Steel Creek	PEB0305B-10	1461	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1666	TCE Plume @ Steel Creek	<i>PEB0305B-10</i>	<i>1461RB</i>	<i>See footnote b</i>		<i>RB</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445520.7362</i>	<i>3676656.741</i>
1667	TCE Plume @ Steel Creek	PEB0305B-11	1462	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1668	TCE Plume @ Steel Creek	PEB0305B-12	1463	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1669	TCE Plume @ Steel Creek	PEB0305B-13	1464	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1670	TCE Plume @ Steel Creek	PEB0305B-14	1465	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1671	TCE Plume @ Steel Creek	PEB0305B-15	1466	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1672	TCE Plume @ Steel Creek	<i>PEB0305B-15</i>	<i>1466FD</i>	<i>See footnote b</i>		<i>FD</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>3</i>	<i>445520.7362</i>	<i>3676656.741</i>
1673	TCE Plume @ Steel Creek	PEB0305B-16	1467	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1674	TCE Plume @ Steel Creek	PEB0305B-17	1468	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1675	TCE Plume @ Steel Creek	PEB0305B-18	1469	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1676	TCE Plume @ Steel Creek	PEB0305B-19	1470	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1677	TCE Plume @ Steel Creek	PEB0305B-20	1471	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1678	TCE Plume @ Steel Creek	<i>PEB0305B-20</i>	<i>1471SPL</i>	<i>See footnote b</i>		<i>SPL</i>	<i>Deep Soil</i>	<i>Plug</i>	<i>4</i>	<i>445520.7362</i>	<i>3676656.741</i>
1679	TCE Plume @ Steel Creek	PEB0305B-21	1472	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1680	TCE Plume @ Steel Creek	PEB0305B-22	1473	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1681	TCE Plume @ Steel Creek	PEB0305B-23	1474	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1682	TCE Plume @ Steel Creek	PEB0305B-24	1475	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1683	TCE Plume @ Steel Creek	PEB0305B-25	1476	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1684	TCE Plume @ Steel Creek	PEB0305B-26	1477	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1685	TCE Plume @ Steel Creek	PEB0305B-27	1478	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1686	TCE Plume @ Steel Creek	PEB0305B-28	1479	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1687	TCE Plume @ Steel Creek	PEB0305B-29	1480	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1688	TCE Plume @ Steel Creek	PEB0305B-30	1481	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1689	TCE Plume @ Steel Creek	PEB0305B-31	1482	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1690	TCE Plume @ Steel Creek	PEB0305B-32	1483	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1691	TCE Plume @ Steel Creek	PEB0305B-33	1484	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741
1692	TCE Plume @ Steel Creek	PEB0305B-34	1485	See footnote b		REG	Deep Soil	Plug	3	445520.7362	3676656.741

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 135 of 154

Table 12. Steel Creek and Distal Area Characterization Sample Matrix Table (Cont.)

Sample Count	Station Location	Sample Station <sup>a</sup>	Sample Number	Top Depth	Bottom Depth	Sample Type	Sample Media	Collection Method	Analyte Code <sup>†</sup>	Proposed Sample Coordinates	
										UTM E (NAD 27)	UTM N (NAD 27)
<b>Boring Sample Locations</b>											
1693	TCE Plume @ Steel Creek	PEB030SB-35	1486	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1694	TCE Plume @ Steel Creek	PEB030SB-35	1486FD	See footnote b	FD	Deep Soil	Plug	3		445520.7362	3676656.741
1695	TCE Plume @ Steel Creek	PEB030SB-36	1487	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1696	TCE Plume @ Steel Creek	PEB030SB-37	1488	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1697	TCE Plume @ Steel Creek	PEB030SB-38	1489	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1698	TCE Plume @ Steel Creek	PEB030SB-39	1490	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1699	TCE Plume @ Steel Creek	PEB030SB-40	1491	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1700	TCE Plume @ Steel Creek	PEB030SB-40	1491SPL	See footnote b	SPL	Deep Soil	Plug	4		445520.7362	3676656.741
1701	TCE Plume @ Steel Creek	PEB030SB-41	1492	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1702	TCE Plume @ Steel Creek	PEB030SB-42	1493	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1703	TCE Plume @ Steel Creek	PEB030SB-43	1494	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1704	TCE Plume @ Steel Creek	PEB030SB-44	1495	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1705	TCE Plume @ Steel Creek	PEB030SB-45	1496	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1706	TCE Plume @ Steel Creek	PEB030SB-46	1497	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1707	TCE Plume @ Steel Creek	PEB030SB-47	1498	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1708	TCE Plume @ Steel Creek	PEB030SB-48	1499	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1709	TCE Plume @ Steel Creek	PEB030SB-49	1500	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741
1710	TCE Plume @ Steel Creek	PEB030SB-50	1501	See footnote b	REG	Deep Soil	Plug	3		445520.7362	3676656.741

REG: REGULAR SAMPLE FD: FIELD DUPLICATE SPL: SPLIT SAMPLE FB: FIELD BLANK RB: RINSATE BLANK

a: Locations PEB003SB, PEB004SB, PEB022SB, and PEB025SB are tentative locations and will only be sampled if data from nearby borings indicate presence of cVOCs.

b: Soil samples to be collected at varying depths depending on the geology.

Sample Type	Regular and QA Sample Summary for Surface Water	Regular and QA Sample Summary for Monitoring Wells	Regular and QA Sample Summary for Borings
Regular	14	13	1501
Field Duplicates	1	1	75
Split Samples	1	1	74
Rinsate Samples	0 <sup>c</sup>	0 <sup>c</sup>	30 <sup>d</sup>
Field Blanks	0 <sup>c</sup>	0 <sup>c</sup>	30 <sup>d</sup>
Trip Blanks	1 per shipment <sup>e</sup>	1 per shipment <sup>e</sup>	1 per shipment <sup>e</sup>
<b>Total Samples</b>	<b>16</b>	<b>15</b>	<b>1710</b>

c: Rinsate and Field Blanks will not be collected because the wells have dedicated sampling equipment and surface water samples are grab only.

d: Rinsate and field blanks collected one per boring.

e: Trip blanks are not shown and are not included in the total; however, one trip blank will be sent with each VOC shipment.

<sup>†</sup>Analyte Code

1	Target Compound List (TCL) Volatile Organic Compounds (VOCs)	
2	Tritium	
3	Headspace volatile organic compounds (VOCs) - Savannah River National Laboratory	
	-1,1,1-Trichloroethane	-cis-1,2-Dichloroethylene
	-1,1-Dichloroethylene	-Dichloromethane (Methylene Chloride)
	-Benzene	-Tetrachloroethylene (PCE)
	-Carbon Tetrachloride	-Toluene
	-Chloroethene (Vinyl Chloride)	-trans-1,2-Dichloroethylene
	-Chloroform	-Trichloroethylene (TCE)
4	Subset of Target Compound List (TCL) VOCs	
	-1,1,1-Trichloroethane	-Tetrachloroethylene (PCE)
	-1,1,2-Trichloro-1,2,2-trifluoroethane	-Toluene
	-1,1-Dichloroethylene	-trans-1,2-Dichloroethylene
	-Benzene	-Trichloroethylene (TCE)
	-Carbon Tetrachloride	-Trichlorofluoromethane
	-Chloroform	-Chloroethene (Vinyl Chloride)
	-cis-1,2-Dichloroethylene	
	-Dichloromethane (Methylene Chloride)	

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 136 of 154

Table 13. Long-Term Surface Water and Groundwater Monitoring Well Sampling Matrix Table

Sample Count	Sample Station	Sample Number	Analyte Code	Sample Type	Sample Media	Collection Method	Completion Date	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)
<b>SURFACE WATER**</b>											
1	SC-02	001	1, 2	REG	Surface Water	Grab	--	445206.639	3676568.604	--	--
2	SC-03	002	1, 2	REG	Surface Water	Grab	--	445116	3676471	--	--
3	SC-03	2FD	1, 2	FD	Surface Water	Grab	--	445116	3676471	--	--
4	SC-04	003	1, 2	REG	Surface Water	Grab	--	444744.214	3676251.196	--	--
5	SC-04	3SPL	1, 2	SPL	Surface Water	Grab	--	444744.214	3676251.196	--	--
6	SC-07	004	1, 2	REG	Surface Water	Grab	--	443749.357	3675216.035	--	--
<b>UAZ Wells</b>											
1	P002U	001	1, 2, 6	REG	Groundwater	Pump	10/3/2006	445590.302	3676613.834	311.48	92.6
2	P003L	002	1, 2, 6	REG	Groundwater	Pump	9/28/2006	445619.078	3676627.094	310.74	118.7
3	P003U	003	1, 2, 6	REG	Groundwater	Pump	9/28/2006	445619.682	3676625.939	310.72	89.4
4	PAO001DU <sup>a</sup>	004	1, 2, 4, 5, 6	REG	Groundwater	Pump	3/18/2010	445790.253	3676639.286	316.26	69.6
5	PAO001DU <sup>a</sup>	4FD	1, 2, 4, 5, 6	FD	Groundwater	Pump	3/18/2010	445790.253	3676639.286	316.26	69.6
6	PAO002DL	005	1, 2, 4, 5, 6	REG	Groundwater	Pump	3/26/2010	445769.478	3676651.412	314.89	106.3
7	PAO002DU	006	1, 2, 4, 5, 6	REG	Groundwater	Pump	3/29/2010	445766.47	3676649.072	315.04	70.1
8	PAO003DU	007	1, 2	REG	Groundwater	Pump	3/19/2010	445846.528	3676792.53	315.82	68.9
9	PDB 2 <sup>a</sup>	008	1	REG	Groundwater	Pump	8/25/1986	445873.61	3676479.78	316.9	71.8
10	PDB 3 <sup>a</sup>	009	1	REG	Groundwater	Pump	8/28/1986	445916.45	3676521.94	317.1	71.4
11	PDB 5	010	1, 2	REG	Groundwater	Pump	1/20/1995	445728.08	3676597.53	317.2	62
12	PGW014DU	011	1, 2	REG	Groundwater	Pump	2/27/2004	445264.871	3676551.671	275.24	77.55
13	PGW014DU	11SPL	1, 2	SPL	Groundwater	Pump	2/27/2004	445264.871	3676551.671	275.24	77.55
14	PGW016 C	012	1, 2	REG	Groundwater	Pump	2/23/2004	445058.987	3676354.343	282.05	89.66
15	PGW016DU	013	1, 2	REG	Groundwater	Pump	2/23/2004	445060.164	3676352.261	282.34	55.57
16	PGW017 C	014	1, 2	REG	Groundwater	Pump	2/25/2004	445453.828	3676694.954	305.45	122.56
17	PGW017DU	015	1, 2	REG	Groundwater	Pump	2/25/2004	445455.75	3676696.353	305.68	62.46
18	PGW018 C	016	1, 2	REG	Groundwater	Pump	2/24/2004	445437.287	3676149.719	304.81	122.53
19	PGW018DU	017	1, 2	REG	Groundwater	Pump	2/24/2004	445434.252	3676153.992	304.91	62.6
20	PGW019DU	018	1, 2	REG	Groundwater	Pump	2/18/2004	445749.261	3676820.733	312.77	102.6
21	PGW021 C	019	1, 2	REG	Groundwater	Pump	2/24/2004	446073.879	3676885.556	311.91	117.6
22	PGW021DU	020	1, 2	REG	Groundwater	Pump	2/24/2004	446072.401	3676887.533	311.9	101.6
23	PGW022DU	021	1, 2	REG	Groundwater	Pump	2/17/2004	446339.988	3676863.729	291.24	82.49
24	PGW024 C	022	1, 2	REG	Groundwater	Pump	3/4/2004	446068.636	3676717.866	316.89	109.55
25	PGW024DU	023	1, 2	REG	Groundwater	Pump	3/4/2004	446069.939	3676716.025	316.9	69.61
26	PGW025 C	024	1, 2	REG	Groundwater	Pump	2/19/2004	445737.766	3676692.852	313.17	122.84
27	PGW025DU	025	1, 2	REG	Groundwater	Pump	2/19/2004	445739.676	3676694.318	313.37	102.72
28	PGW026DL	026	1, 2	REG	Groundwater	Pump	4/21/2011	445391.493	3676615.995	289.35	100
29	PGW026DL	26FD	1, 2	FD	Groundwater	Pump	4/21/2011	445391.493	3676615.995	289.35	100
30	PGW027DU	027	1, 2	REG	Groundwater	Pump	4/29/2011	445226.969	3676447.381	279.42	82
31	PGW028DU	028	1, 2	REG	Groundwater	Pump	5/4/2011	445196.587	3676268.25	296.42	85
32	PGW029DL	029	1, 2	REG	Groundwater	Pump	5/23/2011	445802.651	3676755.727	314.37	100
33	PGW034DL	030	1, 2	REG	Groundwater	Pump	9/26/2014	446092.356	3677110.743	310.73	112
34	PGW034DL	30SPL	1, 2	SPL	Groundwater	Pump	9/26/2014	446092.356	3677110.743	310.73	112
35	PMP004DL	031	1, 2, 6	REG	Groundwater	Pump	9/30/2008	445677.978	3676618.626	313.7	99.2
36	PMP007DL	032	1, 2, 6	REG	Groundwater	Pump	10/13/2008	445679.756	3676650.814	311.8	101.2
37	PMP008DL	033	1, 2, 6	REG	Groundwater	Pump	10/14/2008	445667.277	3676635.93	312.3	101.4
38	PMW001DL	034	1, 2, 6	REG	Groundwater	Pump	3/31/2009	445746.069	3676645.577	314.92	101.8
39	PMW005DL	035	1, 2, 6	REG	Groundwater	Pump	3/25/2009	445693.49	3676633.906	313.48	102.3
40	PRB001DU <sup>a</sup>	036	1	REG	Groundwater	Pump	8/23/2011	445835.042	3676499.995	316.61	75
41	PRB002DU <sup>a</sup>	037	1, 2	REG	Groundwater	Pump	8/24/2011	445793.365	3676545.546	317.1	75
42	PRB003DU <sup>a</sup>	038	1, 2, 3, 4, 5, 6	REG	Groundwater	Pump	8/25/2011	445964.477	3676412.526	317.11	75
43	PRB004DU <sup>a</sup>	039	1, 2	REG	Groundwater	Pump	8/24/2011	445905.852	3676613.904	315.97	75
44	PRB005DU <sup>a</sup>	040	1, 2	REG	Groundwater	Pump	8/25/2011	445861.479	3676675.761	315.77	75
45	PSB 1A	041	1, 3, 5	REG	Groundwater	Pump	3/15/1984	445706.34	3676398.04	327.4	71.7
46	PSB 2A	042	1, 5	REG	Groundwater	Pump	3/16/1984	445652.17	3676356.01	322.2	66.5
47	PSB 3A	043	1, 5	REG	Groundwater	Pump	3/19/1984	445574.1	3676294.42	316.5	62.1

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 137 of 154

Table 13. Long-Term Surface Water and Groundwater Monitoring Well Sampling Matrix Table (Continued)

Sample Count	Sample Station	Sample Number	Analyte Code	Sample Type	Sample Media	Collection Method	Completion Date	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)
48	PSB 4A	044	1, 5	REG	Groundwater	Pump	3/20/1984	445525.9	3676234.61	310.5	57
49	PSB 7A	045	1, 5	REG	Groundwater	Pump	3/14/1984	445757.49	3676410.4	329	71.7
50	PSB 11	046	1, 5	REG	Groundwater	Pump	9/11/2001	445426.521	3676383.421	306.02	58.5
51	PSB002DL	047	1, 5	REG	Groundwater	Pump	5/13/2011	445646.276	3676352.36	322.03	83
52	PSB003DL	048	1, 5	REG	Groundwater	Pump	5/14/2014	445571.726	3676296.968	317.78	82.2
53	PSB011DL	049	1, 5	REG	Groundwater	Pump	5/9/2011	445423.078	3676384.772	307	98
54	PGW035D*	050	1, 2	REG	Groundwater	Pump	to be installed	445504.332	3676598.004	--	115
55	PSC001D2*	051	1, 2	REG	Groundwater	Pump	to be installed	445206.1568	3676552.984	--	10
56	PSC002D1*	052	1, 2	REG	Groundwater	Pump	to be installed	445165.8078	3676502.052	--	5
57	PSC002D2*	053	1, 2	REG	Groundwater	Pump	to be installed	445165.8078	3676502.052	--	10
58	PSC003D1*	054	1, 2	REG	Groundwater	Pump	to be installed	445123.4743	3676468.318	--	5
59	PSC003D2*	055	1, 2	REG	Groundwater	Pump	to be installed	445123.4743	3676468.318	--	10
60	PSC004D1*	056	1, 2	REG	Groundwater	Pump	to be installed	445070.5576	3676438.552	--	5
61	PSC004D1*	56FD	1, 2	FD	Groundwater	Pump	to be installed	445070.5576	3676438.552	--	5
62	PSC004D2*	057	1, 2	REG	Groundwater	Pump	to be installed	445070.5576	3676438.552	--	10
63	PSC005D1*	058	1, 2	REG	Groundwater	Pump	to be installed	444863.8278	3676393.995	--	5
64	PSC005D2*	059	1, 2	REG	Groundwater	Pump	to be installed	444863.8278	3676393.995	--	10
65	PSC006D1*	059	1, 2	REG	Groundwater	Pump	to be installed	444778.5937	3676250.991	--	5
66	PSC006D2*	060	1, 2	REG	Groundwater	Pump	to be installed	444778.5937	3676250.991	--	10
67	PSC006D2*	60SPL	1, 2	SPL	Groundwater	Pump	to be installed	444778.5937	3676250.991	--	10
LAZ											
68	PDB003C	061	1, 2	REG	Groundwater	Pump	6/3/2014	445938.9431	3676546.01	316.16	141.7
69	PGW014 B	062	1, 2	REG	Groundwater	Pump	2/27/2004	445262.514	3676547.92	275.09	157.63
70	PGW014 C	063	1, 2	REG	Groundwater	Pump	2/27/2004	445263.779	3676549.859	275.25	102.55
71	PGW016 B	064	1, 2	REG	Groundwater	Pump	2/23/2004	445057.644	3676357.172	281.72	157.59
72	PGW017 B	065	1, 2	REG	Groundwater	Pump	2/25/2004	445452.052	3676693.511	305.36	157.67
73	PGW018 B	066	1, 5	REG	Groundwater	Pump	2/24/2004	445435.756	3676151.771	304.85	168.34
74	PGW019 B	067	1, 2	REG	Groundwater	Pump	2/18/2004	445751.189	3676822.174	312.89	157.96
75	PGW019 C	068	1, 2	REG	Groundwater	Pump	2/18/2004	445753.154	3676823.566	312.92	137.73
76	PGW021 B	069	1, 2	REG	Groundwater	Pump	2/24/2004	446075.325	3676883.518	311.87	157.64
77	PGW022 B	070	1, 2	REG	Groundwater	Pump	2/17/2004	446335.496	3676864.152	290.77	147.55
78	PGW022 C	071	1, 2	REG	Groundwater	Pump	2/17/2004	446337.73	3676863.932	291.07	112.39
79	PGW024 B	072	1, 2	REG	Groundwater	Pump	3/4/2004	446066.558	3676720.876	316.88	149.61
80	PGW025 B	073	1, 2	REG	Groundwater	Pump	2/19/2004	445735.867	3676691.318	313.16	157.58
81	PGW026B	074	1, 2	REG	Groundwater	Pump	4/20/2011	445388.407	3676612.467	289.47	175
82	PGW026C	075	1, 2	REG	Groundwater	Pump	4/21/2011	445390.389	3676614.664	289.43	145
83	PGW027C	076	1, 2	REG	Groundwater	Pump	4/26/2011	445227.206	3676441.826	279.8	140
84	PGW027DL	077	1, 2	REG	Groundwater	Pump	4/29/2011	445227.073	3676444.442	279.58	117
85	PGW027DL	77FD	1, 2	FD	Groundwater	Pump	4/29/2011	445227.073	3676444.442	279.58	117
86	PGW028C	078	1, 2	REG	Groundwater	Pump	5/4/2011	445193.279	3676265.804	296.27	127
87	PGW029C	079	1, 2	REG	Groundwater	Pump	5/19/2011	445800.553	3676754.312	314.5	142
88	PGW030B	080	1, 2	REG	Groundwater	Pump	5/24/2011	445844.45	3676750.651	315.02	142
89	PGW030BL	080	1, 2	REG	Groundwater	Pump	5/24/2011	445843.28	3676752.362	315.06	167
90	PGW031B	081	1, 2	REG	Groundwater	Pump	5/18/2011	446038.977	3676793.401	315.63	165.2
91	PGW031C	082	1, 2	REG	Groundwater	Pump	5/18/2011	446037.742	3676795.253	315.64	142
92	PRB003C	083	1, 2, 3, 4, 5, 6	REG	Groundwater	Pump	5/28/2014	445962.694	3676408.479	317.42	142
93	PRB005C	084	1, 2	REG	Groundwater	Pump	5/21/2014	445866.257	3676675.05	316.17	152
94	PSB002B	085	1, 5	REG	Groundwater	Pump	5/12/2011	445658.726	3676359.539	322.64	195
95	PSB002C	086	1, 5	REG	Groundwater	Pump	5/13/2011	445648.524	3676354.035	322.18	150
96	PSB011B	087	1, 5	REG	Groundwater	Pump	5/6/2011	445423.72	3676390.931	307.2	151
97	PSB011C	088	1, 5	REG	Groundwater	Pump	5/9/2011	445423.415	3676387.467	307.05	120
98	PSB011C	88SPL	1, 5	SPL	Groundwater	Pump	5/9/2011	445423.415	3676387.467	307.05	120
99	PGW035C*	089	1, 2	REG	Groundwater	Pump	to be installed	445504.332	3676598.004	--	155

**Sampling and Analysis Plan Addendum for PAGW OU (U)**  
**Savannah River Site**  
**February 2018**

**SRNS-RP-2018-00261**  
**Rev. 0**  
**Page 138 of 154**

**Table 13. Long-Term Surface Water and Groundwater Monitoring Well Sampling Matrix Table (Continued)**

Sample Count	Sample Station	Sample Number	Analyte Code	Sample Type	Sample Media	Collection Method	Completion Date	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)
<b>GAU Wells</b>											
100	PGW033A	090	1	REG	Groundwater	Pump	9/25/2014	445831.993	3676320.489	328.67	236
101	PGW033A	90SPL	1	SPL	Groundwater	Pump	9/25/2014	445831.993	3676320.489	328.67	236
102	PGW-03A	091	1	REG	Groundwater	Pump	1/14/2003	445988.766	3676038.45	324.08	241.01
103	PSB002AA	092	1	REG	Groundwater	Pump	5/11/2011	445656.558	3676357.961	322.57	225
104	PSB002AA	92FD	1	FD	Groundwater	Pump	5/11/2011	445656.558	3676357.961	322.57	225
104	PSB002AL	093	1	REG	Groundwater	Pump	5/13/2014	445655.832	3676361.384	322.98	328.5
105	PSB011A	094	1	REG	Groundwater	Pump	5/20/2014	445423.978	3676395.988	307.61	222

REG = Regular Sample; FD = Field Duplicate; SPL = Split

<sup>a</sup> Wells are included as part of the P-Area Operable Unit Effectiveness Monitoring Plan for the P-Reactor Building (105-P) Complex (SRNS-RP-2010-00894). Wells are sampled every 5 yrs for specific list of radionuclides.

\*New wells to be installed as part of Steel Creek and distal area characterization.

\*\*Any new surface water location(s) retained upon completion of Steel Creek characterization will be included.

Analyte Code:

1- Tritium

2- Reduced VOC list

- 1,1-Dichloroethylene
- Chloroethene (Vinyl Chloride)
- cis-1,2-Dichloroethylene
- trans-1,2-Dichloroethylene
- Ethene
- Ethane
- Tetrachloroethylene (PCE)
- Trichloroethylene (TCE)

3- Strontium-90

4- TAL Metals, Chloride, Uranium

5- Gross Alpha, Nonvolatile Beta

6- Total Phosphate (as P), Total Organic Carbon, Sulfate, Sulfide, Nitrate, Dissolved Organic Carbon, Total Inorganic Carbon, Ferric Iron, Ferrous Iron

**Sample Summary**

		UAZ	LAZ	GAU
# QA Samples	Number Wells	61	30	5
	Number FD	3	1	1
	Number SPL	3	1	1
<b>TOTAL Number Samples</b>		<b>67</b>	<b>32</b>	<b>7</b>

Table 14. List of Monitoring Wells for Synchronous Water Levels

Aquifer	Station Name	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)	Completion Date
UAZ	P 24D	446400.35	3676706.97	313.3	71	8/18/1986
UAZ	PAO001DU	445790.253	3676639.286	316.26	69.6	3/18/2010
UAZ	PAO003DU	445846.528	3676792.53	315.82	68.9	3/19/2010
UAZ	PAS001D	446658.442	3675626.681	263.32	72.25	6/13/2011
UAZ	PAS002D	447527.305	3675404.201	242.64	60	6/14/2011
UAZ	PAS003D	447590.835	3674744.524	240.35	70.17	6/15/2011
UAZ	PBP 1D	445739.865	3677173.216	315.08	58	5/21/1997
UAZ	PBP 2D	445672.5627	3677075.287	313.8	58	5/21/1997
UAZ	PBP 3D	445687.7044	3677132.313	316.89	55	5/21/1997
UAZ	PCB 2A	446213.52	3676089.63	302.8	47.1	12/17/1983
UAZ	PDB 2	445873.61	3676479.78	316.9	71.8	8/25/1986
UAZ	PDB 3	445916.45	3676521.94	317.1	71.4	8/28/1986
UAZ	PDB 4	445854.62	3676444.1	317.1	62	1/25/1995
UAZ	PDB 5	445728.08	3676597.53	317.2	62	1/20/1995
UAZ	PGW014DU	445264.871	3676551.671	275.24	77.55	2/27/2004
UAZ	PGW015DU	444791.522	3677068.332	301.85	97.1	10/9/2003
UAZ	PGW016 C	445058.987	3676354.343	282.05	89.66	2/23/2004
UAZ	PGW016DU	445060.164	3676352.261	282.34	55.57	2/23/2004
UAZ	PGW017 C	445453.828	3676694.954	305.45	122.56	2/25/2004
UAZ	PGW017DU	445455.75	3676696.353	305.68	62.46	2/25/2004
UAZ	PGW018 C	445437.287	3676149.719	304.81	122.53	2/24/2004
UAZ	PGW018DU	445434.252	3676153.992	304.91	62.6	2/24/2004
UAZ	PGW019DU	445749.261	3676820.733	312.77	102.6	2/18/2004
UAZ	PGW-01DL	445530.817	3677264.066	310.55	95.3	11/22/2002
UAZ	PGW020DU	445823.614	3676409.092	320.23	97.81	3/3/2004
UAZ	PGW021 C	446073.879	3676885.556	311.91	117.6	2/24/2004
UAZ	PGW021DU	446072.401	3676887.533	311.9	101.6	2/24/2004
UAZ	PGW022DU	446339.988	3676863.729	291.24	82.49	2/17/2004
UAZ	PGW023 C	446470.618	3676724.357	306.58	102.34	2/18/2004
UAZ	PGW023DU	446468.717	3676723.086	306.65	57.89	2/18/2004
UAZ	PGW024 C	446068.636	3676717.866	316.89	109.55	3/4/2004
UAZ	PGW024DU	446069.939	3676716.025	316.9	69.61	3/4/2004
UAZ	PGW025 C	445737.766	3676692.852	313.17	122.84	2/19/2004
UAZ	PGW025DU	445739.676	3676694.318	313.37	102.72	2/19/2004
UAZ	PGW026DL	445391.493	3676615.995	289.35	100	4/21/2011
UAZ	PGW027DU	445226.969	3676447.381	279.42	82	4/29/2011
UAZ	PGW028DU	445196.587	3676268.25	296.42	85	5/4/2011
UAZ	PGW029DL	445802.651	3676755.727	314.37	100	5/23/2011
UAZ	PGW-02DL	443783.481	3675630.36	251.76	60.5	4/17/2003
UAZ	PGW034DL	446092.356	3677110.743	310.73	112	9/26/2014
UAZ	PGW-03DL	445995.213	3676043.106	323.33	112.5	1/14/2003
UAZ	PGW-04DL	444807.539	3676004.485	278.04	77.2	3/10/2003
UAZ	PGW-06DL	446844.911	3676950.245	294.33	99.5	2/18/2003
UAZ	PGW-07DL	445796.931	3677009.509	321.74	102.6	12/18/2002
UAZ	PGW-08DL	444599.01	3675103.301	299.39	87.65	3/12/2003
UAZ	PGW-09DL	445284.631	3674424.536	309.8	97.2	3/25/2003

Table 14. List of Monitoring Wells for Synchronous Water Levels (Continued)

Aquifer	Station Name	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)	Completion Date
UAZ	PGW-10CU	446949.425	3674681.477	253.64	67.27	9/30/2003
UAZ	PGW-10DL	446949.919	3674678.935	253.6	58.5	1/28/2003
UAZ	PGW-11DL	446189.547	3678259.113	273	78.19	2/4/2003
UAZ	PGW-12DL	447824.142	3677056.143	273.32	69.88	4/14/2003
UAZ	PGW-13DL	444098.509	3676748.598	287.37	102.41	4/29/2003
UAZ	PMW001DL	445746.069	3676645.577	314.92	101.8	3/31/2009
UAZ	PMW005DL	445693.49	3676633.906	313.48	102.3	3/25/2009
UAZ	PRB001DU	445835.042	3676499.995	316.61	75	8/23/2011
UAZ	PRB002DU	445793.365	3676545.546	317.1	75	8/24/2011
UAZ	PRB003DU	445964.477	3676412.526	317.11	75	8/25/2011
UAZ	PRB004DU	445905.852	3676613.904	315.97	75	8/24/2011
UAZ	PRB005DU	445861.479	3676675.761	315.77	75	8/25/2011
UAZ	PRP 1A	445122.88	3676625.52	282.9	51.7	10/17/1983
UAZ	PRP 2	445164.12	3676670.5	284.1	52.3	10/18/1983
UAZ	PRP 3	445182.33	3676612.6	278.6	52.1	10/13/1983
UAZ	PRP 5	445281.37	3676683.915	285.29	90.15	3/31/1998
UAZ	PRP 7	445156.1652	3676605.45	279.15	53.5	9/17/1999
UAZ	PSB 1A	445706.34	3676398.04	327.4	71.7	3/15/1984
UAZ	PSB 2A	445652.17	3676356.01	322.2	66.5	3/16/1984
UAZ	PSB 3A	445574.1	3676294.42	316.5	62.1	3/19/1984
UAZ	PSB 4A	445525.9	3676234.61	310.5	57	3/20/1984
UAZ	PSB 5A	445606.63	3676258.07	317.3	57	3/20/1984
UAZ	PSB 6A	445698.39	3676323.17	322.1	62.1	3/21/1984
UAZ	PSB 7A	445757.49	3676410.4	329	71.7	3/14/1984
UAZ	PSB 8	445837.418	3676342.545	321.75	63.84	9/24/2001
UAZ	PSB 10	445429.971	3676289.999	306.54	53.84	9/13/2001
UAZ	PSB 11	445426.521	3676383.421	306.02	58.5	9/11/2001
UAZ	PSB002DL	445646.276	3676352.36	322.03	83	5/13/2011
UAZ	PSB003DL	445571.726	3676296.968	317.78	82.2	5/14/2014
UAZ	PSB011DL	445423.078	3676384.772	307	98	5/9/2011
UAZ	RGW 4D	444577.1801	3677468.983	332.06	154	10/12/1998
UAZ	RGW 5D	445938.5996	3678017.73	284.17	104	9/16/1998
UAZ	RGW 6D	446720.5124	3676546.018	315.14	119	9/14/1998
UAZ	RGW 7D	446115.5104	3674856.425	295.45	138	7/29/1998
UAZ	RGW 9D	443116.0117	3675952.872	288.69	141	7/23/1998
LAZ	P 24B	446393.5	3676713.02	313.3	240	8/19/1986
LAZ	P 24C	446397	3676709.92	313.4	155	8/4/1986
LAZ	PAS001C	446660.688	3675629.447	263.29	117	6/13/2011
LAZ	PDB003C	445938.9431	3676546.01	316.16	141.7	6/3/2014
LAZ	PGW014 B	445262.514	3676547.92	275.09	157.63	2/27/2004
LAZ	PGW014 C	445263.779	3676549.859	275.25	102.55	2/27/2004
LAZ	PGW015 B	444790.539	3677070.821	302.37	155.24	10/7/2003
LAZ	PGW015 C	444793.797	3677069.348	301.75	129.31	10/8/2003
LAZ	PGW016 B	445057.644	3676357.172	281.72	157.59	2/23/2004
LAZ	PGW017 B	445452.052	3676693.511	305.36	157.67	2/25/2004
LAZ	PGW018 B	445435.756	3676151.771	304.85	168.34	2/24/2004

Table 14. List of Monitoring Wells for Synchronous Water Levels (Continued)

Aquifer	Station Name	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)	Completion Date
LAZ	PGW019 B	445751.189	3676822.174	312.89	157.96	2/18/2004
LAZ	PGW019 C	445753.154	3676823.566	312.92	137.73	2/18/2004
LAZ	PGW-01B	445523.413	3677263.727	310.75	162.8	12/12/2002
LAZ	PGW-01C	445534.086	3677264.184	310.66	136.55	12/10/2002
LAZ	PGW020 B	445820.753	3676412.814	320.36	172.81	3/3/2004
LAZ	PGW020 C	445822.201	3676410.929	320.22	142.85	3/3/2004
LAZ	PGW021 B	446075.325	3676883.518	311.87	157.64	2/24/2004
LAZ	PGW022 B	446335.496	3676864.152	290.77	147.55	2/17/2004
LAZ	PGW022 C	446337.73	3676863.932	291.07	112.39	2/17/2004
LAZ	PGW023 B	446472.472	3676725.744	306.67	142.49	2/18/2004
LAZ	PGW024 B	446066.558	3676720.876	316.88	149.61	3/4/2004
LAZ	PGW025 B	445735.867	3676691.318	313.16	157.58	2/19/2004
LAZ	PGW026B	445388.407	3676612.467	289.47	175	4/20/2011
LAZ	PGW026C	445390.389	3676614.664	289.43	145	4/21/2011
LAZ	PGW027C	445227.206	3676441.826	279.8	140	4/26/2011
LAZ	PGW027DL	445227.073	3676444.442	279.58	117	4/29/2011
LAZ	PGW028C	445193.279	3676265.804	296.27	127	5/4/2011
LAZ	PGW029C	445800.553	3676754.312	314.5	142	5/19/2011
LAZ	PGW-02C	443783.406	3675633.208	251.74	98.59	4/17/2003
LAZ	PGW-02CU	443779.705	3675632.7	251.95	76.93	10/1/2003
LAZ	PGW030B	445844.45	3676750.651	315.02	142	5/24/2011
LAZ	PGW030BL	445843.28	3676752.362	315.06	167	5/24/2011
LAZ	PGW031B	446038.977	3676793.401	315.63	165.2	5/18/2011
LAZ	PGW031C	446037.742	3676795.253	315.64	142	5/18/2011
LAZ	PGW-03B	445990.873	3676040.059	323.73	194.52	1/14/2003
LAZ	PGW-03C	445992.96	3676041.541	323.55	160.5	1/14/2003
LAZ	PGW-04B	444802.971	3676000.82	278.09	164.1	3/10/2003
LAZ	PGW-04C	444805.21	3676002.714	277.99	115.51	3/10/2003
LAZ	PGW-05B	447906.432	3675688.787	243.45	195.2	5/6/2003
LAZ	PGW-05C	447904.612	3675690.666	243.42	108.57	5/7/2003
LAZ	PGW-06C	446843.701	3676947.404	294.64	152.5	2/18/2003
LAZ	PGW-07B	445793.988	3677014.641	321.77	167.8	12/18/2002
LAZ	PGW-07C	445795.512	3677012.132	321.84	143.2	12/18/2002
LAZ	PGW-08A	444599.681	3675111.854	298.65	241.15	3/19/2003
LAZ	PGW-08B	444599.373	3675109.067	298.9	182.53	3/19/2003
LAZ	PGW-08C	444599.168	3675106.242	299.45	123.65	3/19/2003
LAZ	PGW-09B	445284.592	3674421.793	309.73	200.32	4/4/2003
LAZ	PGW-09C	445288.056	3674424.542	309.79	162.02	9/19/2003
LAZ	PGW-10B	446953.143	3674679.322	253.51	188.52	5/8/2003
LAZ	PGW-10C	446947.157	3674678.432	253.75	113.51	1/28/2003
LAZ	PGW-11C	446186.536	3678259.521	273.32	127.19	2/3/2003
LAZ	PGW-12C	447825.039	3677058.793	273.19	123.51	4/14/2003
LAZ	PGW-13C	444100.054	3676746.217	287.69	163.52	4/29/2003
LAZ	PGW-13CU	444102.963	3676748.071	287.78	142.09	9/18/2003
LAZ	PRB003C	445962.694	3676408.479	317.42	142	5/28/2014
LAZ	PRB005C	445866.257	3676675.05	316.17	152	5/21/2014

Table 14. List of Monitoring Wells for Synchronous Water Levels (Continued)

Aquifer	Station Name	UTM E (NAD27 Zone 17)	UTM N (NAD27 Zone 17)	Ground Elev. (ft amsl)	Total Depth (ft bls)	Completion Date
LAZ	PSB002B	445658.726	3676359.539	322.64	195	5/12/2011
LAZ	PSB002C	445648.524	3676354.035	322.18	150	5/13/2011
LAZ	PSB011B	445423.72	3676390.931	307.2	151	5/6/2011
LAZ	PSB011C	445423.415	3676387.467	307.05	120	5/9/2011
LAZ	RGW 4C	444576.2842	3677465.994	332.2	207	9/28/1998
LAZ	RGW 5C	445941.9432	3678018.325	283.83	182	9/16/1998
LAZ	RGW 6C	446723.7193	3676545.107	315.12	218	9/11/1998
LAZ	RGW 7C	446116.2427	3674853.498	295.85	222	7/29/1998
LAZ	RGW 9C	443118.5289	3675949.368	288.28	189.5	8/12/1998
GA	P 24A	446390.1	3676715.98	313.1	325	8/4/1986
GA	PGW014 A	445261.245	3676546.091	275.17	283.6	2/27/2004
GA	PGW015 A	444792.999	3677071.895	302.2	282.94	10/7/2003
GA	PGW-01A	445526.926	3677263.872	310.71	230.47	12/12/2002
GA	PGW024 A	446065.244	3676722.784	316.81	259.53	3/5/2004
GA	PGW025 A	445734.067	3676689.857	313.11	282.72	3/8/2004
GA	PGW-02A	443783.152	3675635.887	251.77	224.19	4/17/2003
GA	PGW033A	445831.993	3676320.489	328.67	236	9/25/2014
GA	PGW-03A	445988.766	3676038.45	324.08	241.01	1/14/2003
GA	PGW-04A	444800.626	3675999.226	278	198.54	3/10/2003
GA	PGW-05A	447908.324	3675686.809	243.48	246.21	5/6/2003
GA	PGW-06A	446841.329	3676941.758	295	239.5	2/18/2003
GA	PGW-06B	446840.001	3676938.869	295.42	198.53	5/9/2003
GA	PGW-07A	445792.687	3677017.048	321.61	217.6	12/18/2002
GA	PGW-09A	445284.403	3674419.206	309.7	288.32	4/4/2003
GA	PGW-11A	446180.975	3678260.222	273.84	162.01	2/4/2003
GA	PGW-11B	446183.525	3678259.93	273.6	210.7	2/3/2003
GA	PGW-12A	447825.99	3677061.37	273.2	244.51	4/22/2003
GA	PGW-13A	444101.502	3676743.917	287.93	232.53	4/29/2003
GA	PSB002AA	445656.558	3676357.961	322.57	225	5/11/2011
GA	PSB002AL	445655.832	3676361.384	322.98	328.5	5/13/2014
GA	PSB011A	445423.978	3676395.988	307.61	222	5/20/2014

Summary Number of Wells

Aquifer	Number of Wells
UAZ	81
LAZ	66
GAU	22
<b>Total # Wells</b>	<b>169</b>

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 143 of 154

Table 15. CRDLs Compared to Risk-Based Screening Levels for Surface Water and Groundwater

Analyte	Analyte Group	CAS	Tap Water RSL (ug/L)	MCL (ug/L)	CRDL (ug/L)	CRDL > MCL/RSL
CHEMICAL OXYGEN DEMAND (COD)	Inorganics	10313				
CHLORIDE	Inorganics	16887-00-6			6.70E-02	No
CYANIDE	Inorganics	57-12-5	7.30E+02	2.00E+02	4.00E+00	No
DISSOLVED ORGANIC CARBON (DOC)	Inorganics	DOC			3.60E-02	No
NITRATE	Inorganics	14797-55-8	2.50E-02			>RSL
NITRITE	Inorganics	14797-65-0	1.60E-03			>RSL
PHOSPHATE	Inorganics	7723-14-0			1.00E-02	No
SULFATE	Inorganics	14808-79-8			1.33E-01	No
SULFIDE	Inorganics	18496-25-8			1.65E-01	No
TOTAL ORGANIC CARBON (TOC)	Inorganics	7440-44-0			7.60E-01	No
ALUMINUM	Metals	7429-90-5	3.70E+04		2.00E+00	No
ANTIMONY	Metals	7440-36-0	1.50E+01	6.00E+00	2.00E+00	No
ARSENIC	Metals	7440-38-2	4.50E-02	1.00E+01	2.00E+00	>RSL
BARIUM	Metals	7440-39-3	7.30E+03	2.00E+03	1.00E+00	No
BERYLLIUM	Metals	7440-41-7	7.30E+01	4.00E+00	2.00E+00	No
CADMIUM	Metals	7440-43-9			2.00E+00	No
CALCIUM	Metals	7440-70-2			2.00E+00	No
CHROMIUM	Metals	7440-47-3		1.00E+02	2.00E+00	No
COBALT	Metals	7440-48-4	1.10E+01		2.00E+00	No
COPPER	Metals	7440-50-8	1.50E+03	1.30E+03	2.00E+00	No
FERRIC IRON	Metals	FE3			1.50E-01	No
FERROUS IRON	Metals	FE2			6.00E-02	No
HEXAVALENT CHROMIUM (CR+6)	Metals	18540-29-9	4.30E-02		4.80E-01	>RSL
IRON	Metals	7439-89-6	2.60E+04		1.30E+01	No
LEAD	Metals	7439-92-1		1.50E+01	3.40E+00	No
MAGNESIUM	Metals	7439-95-4			2.00E+00	No
MANGANESE	Metals	7439-96-5	8.80E+02		2.00E+00	No
MERCURY	Metals	7439-97-6	6.30E-01	2.00E+00	2.00E+00	>RSL
NICKEL	Metals	7440-02-0	7.30E+02		2.00E+00	No
POTASSIUM	Metals	9/77440			2.00E+00	No
SELENIUM	Metals	7782-49-2	1.80E+02	5.00E+01	1.00E+01	No
SILVER	Metals	7440-22-4	1.80E+02		2.00E+00	No
SODIUM	Metals	7440-23-5			2.00E+00	No
THALLIUM	Metals	7440-28-0		2.00E+00	2.00E+00	No
VANADIUM	Metals	7440-62-2	1.80E+02		1.00E+01	No
ZINC	Metals	7440-66-6	1.10E+04		2.00E+00	No
AROCLOR 1016	PCBs	12674-11-2	9.60E-01		1.00E-02	No
AROCLOR 1221	PCBs	11104-28-2	6.80E-03		5.00E-01	>RSL
AROCLOR 1232	PCBs	11141-16-5	6.80E-03		5.00E-01	>RSL
AROCLOR 1242	PCBs	53469-21-9	3.40E-02		5.70E+00	>RSL
AROCLOR 1248	PCBs	12672-29-6	3.40E-02		5.60E-02	>RSL
AROCLOR 1254	PCBs	11097-69-1	3.40E-02		TBD	No
AROCLOR 1260	PCBs	11096-82-5	3.40E-02		4.00E+00	>RSL
ALDRIN	Pesticides/Herbicides	309-00-2	4.00E-03		2.00E+00	>RSL
ALPHA-BENZENE HEXACHLORIDE	Pesticides/Herbicides	319-84-6	1.10E-02		1.00E+01	>RSL
ALPHA-CHLORDANE	Pesticides/Herbicides	5103-71-9			1.00E+00	No
BETA-BENZENE HEXACHLORIDE	Pesticides/Herbicides	319-85-7	3.70E-02		2.00E+00	>RSL
DDD	Pesticides/Herbicides	72-54-8	2.80E-01		2.00E+00	>RSL
DDE	Pesticides/Herbicides	72-55-9	2.00E-01		2.00E+00	>RSL
DDT	Pesticides/Herbicides	50-29-3	2.00E-01		2.00E+00	>RSL
DELTA-BENZENE HEXACHLORIDE	Pesticides/Herbicides	319-86-8			4.00E+00	No
DIELDRIN	Pesticides/Herbicides	60-57-1	4.20E-03		2.00E+00	>RSL
ENDOSULFAN I	Pesticides/Herbicides	959-98-8			1.00E+00	No
ENDOSULFAN II	Pesticides/Herbicides	33213-65-9			1.00E+01	No
ENDOSULFAN SULFATE	Pesticides/Herbicides	1031-07-8			1.40E+01	No
ENDRIN	Pesticides/Herbicides	72-20-8	1.10E+01	2.00E+00	2.00E+00	No
ENDRIN ALDEHYDE	Pesticides/Herbicides	7421-93-4			2.00E+00	No
ENDRIN KETONE	Pesticides/Herbicides	53494-70-5			2.00E+00	No
GAMMA-CHLORDANE	Pesticides/Herbicides	5103-74-2			2.00E+00	No
HEPTACHLOR	Pesticides/Herbicides	76-44-8	1.50E-02	4.00E-01	1.00E+00	>RSL/MCL
HEPTACHLOR EPOXIDE	Pesticides/Herbicides	1024-57-3	7.40E-03	2.00E-01	1.40E+01	>RSL/MCL
LINDANE	Pesticides/Herbicides	58-89-9	6.10E-02	2.00E-01	2.00E+00	>RSL/MCL
METHOXYCHLOR	Pesticides/Herbicides	72-43-5	1.80E+02	4.00E+01	2.00E+00	No
TOXAPHENE	Pesticides/Herbicides	8001-35-2	6.10E-02	3.00E+00	1.00E+00	>RSL
1,1'-BIPHENYL	Semi-Volatiles	92-52-4	8.30E-01		1.00E+01	>RSL
1,2,4,5-TETRACHLOROBENZENE	Semi-Volatiles	95-94-3	1.10E+01		1.00E+00	No
1,4-DIOXANE	Semi-Volatiles	123-91-1	6.70E-01		6.00E+00	>RSL

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 144 of 154

Table 15. CRDLs Compared to Risk-Based Screening Levels for Surface Water and Groundwater (Continued)

Analyte	Analyte Group	CAS	Tap Water RSL (ug/L)	MCL (ug/L)	CRDL (ug/L)	CRDL > MCL/RSL
2,3,4,6-TETRACHLOROPHENOL	Semi-Volatiles	58-90-2	1.10E+03		4.00E+00	No
2,4,5-TRICHLOROPHENOL	Semi-Volatiles	95-95-4	3.70E+03		1.00E+00	No
2,4,6-TRICHLOROPHENOL	Semi-Volatiles	88-06-2	6.10E+00		1.00E+00	No
2,4-DICHLOROPHENOL	Semi-Volatiles	120-83-2	1.10E+02		1.20E-01	No
2,4-DIMETHYLPHENOL	Semi-Volatiles	105-67-9	7.30E+02		4.00E+00	No
2,4-DINITROPHENOL	Semi-Volatiles	51-28-5	7.30E+01		5.00E+00	No
2,4-DINITROTOLUENE	Semi-Volatiles	121-14-2	2.20E-01		1.40E-01	No
2,6-DINITROTOLUENE	Semi-Volatiles	606-20-2	3.70E+01		2.00E+00	No
2-CHLORONAPHTHALENE	Semi-Volatiles	91-58-7	2.90E+03		1.00E+01	No
2-CHLOROPHENOL	Semi-Volatiles	95-57-8	1.80E+02		1.00E+00	No
2-METHYL-4,6-DINITROPHENOL	Semi-Volatiles	534-52-1	2.90E+00		5.00E+00	>RSL
2-METHYLNAPHTHALENE	Semi-Volatiles	91-57-6			2.00E+01	No
2-NITROANILINE	Semi-Volatiles	88-74-4	3.70E+02		1.00E+00	No
2-NITROPHENOL	Semi-Volatiles	88-75-5			1.00E+00	No
3,3'-DICHLOROBENZIDINE	Semi-Volatiles	91-94-1	1.50E-01		1.00E+01	>RSL
4-BROMOPHENYL PHENYL ETHER	Semi-Volatiles	101-55-3			1.00E+01	No
4-CHLOROANILINE	Semi-Volatiles	106-47-8	3.40E-01		2.00E+00	>RSL
4-CHLORO-M-CRESOL	Semi-Volatiles	59-50-7	3.70E+03		2.00E+00	No
4-CHLOROPHENYL PHENYL ETHER	Semi-Volatiles	7005-72-3			2.00E-01	No
4-NITROPHENOL	Semi-Volatiles	100-02-7			2.00E+01	No
ACENAPHTHENE	Semi-Volatiles	83-32-9	2.20E+03		1.00E+00	No
ACENAPHTHYLENE	Semi-Volatiles	208-96-8			2.00E+00	No
ACETOPHENONE	Semi-Volatiles	98-86-2	3.70E+03		1.00E+02	No
ANTHRACENE	Semi-Volatiles	120-12-7	1.10E+04		2.00E+00	No
ATRAZINE	Semi-Volatiles	1912-24-9	2.90E-01	3.00E+00	2.00E+00	>RSL
BENZALDEHYDE	Semi-Volatiles	100-52-7	3.70E+03		4.00E+00	No
BENZO[A]ANTHRACENE	Semi-Volatiles	56-55-3	2.90E-02		1.00E+01	>RSL
BENZO[A]PYRENE	Semi-Volatiles	50-32-8	2.90E-03	2.00E-01	2.00E+00	>RSL/MCL
BENZO[B]FLUORANTHENE	Semi-Volatiles	205-99-2	2.90E-02		2.00E+00	>RSL
BENZO[G,H,I]PERYLENE	Semi-Volatiles	191-24-2			5.50E-02	No
BENZO[K]FLUORANTHENE	Semi-Volatiles	207-08-9	2.90E-01		2.00E+00	>RSL
BIS(2-CHLORO-1-METHYLETHYL)ETHER	Semi-Volatiles	108-60-1	3.20E-01		8.70E+01	>RSL
BIS(2-CHLOROETHOXY)METHANE	Semi-Volatiles	111-91-1	1.10E+02		5.00E-01	No
BIS(2-CHLOROETHYL) ETHER	Semi-Volatiles	111-44-4	1.20E-02		5.00E-01	>RSL
BIS(2-ETHYLHEXYL) PHTHALATE	Semi-Volatiles	117-81-7	4.80E+00	6.00E+00	5.00E-01	No
BUTYLBENZYL PHTHALATE	Semi-Volatiles	85-68-7	3.50E+01		1.00E+00	No
CAPROLACTAM	Semi-Volatiles	105-60-2	1.80E+04		1.20E+01	No
CARBAZOLE	Semi-Volatiles	86-74-8			1.00E+00	No
CHRYSENE	Semi-Volatiles	218-01-9	2.90E+00		1.00E+01	>RSL
DIBENZO[A,H]ANTHRACENE	Semi-Volatiles	53-70-3	2.90E-03		2.00E+00	>RSL
DIBENZOFURAN	Semi-Volatiles	132-64-9	3.70E+01		6.40E-02	No
DIBUTYL PHTHALATE	Semi-Volatiles	84-74-2	3.70E+03		2.00E+00	No
DIETHYL PHTHALATE	Semi-Volatiles	84-66-2	2.90E+04		1.00E+00	No
DIMETHYL PHTHALATE	Semi-Volatiles	131-11-3			2.00E+00	No
DI-N-OCTYL PHTHALATE	Semi-Volatiles	117-84-0			5.00E-01	No
FLUORANTHENE	Semi-Volatiles	206-44-0	1.50E+03		2.00E+00	No
FLUORENE	Semi-Volatiles	86-73-7	1.50E+03		1.00E+00	No
HEXACHLOROBENZENE	Semi-Volatiles	118-74-1	4.20E-02	1.00E+00	5.00E-01	>RSL
HEXACHLOROBUTADIENE	Semi-Volatiles	87-68-3	8.60E-01		1.00E+00	>RSL
HEXACHLOROCCYCLOPENTADIENE	Semi-Volatiles	77-47-4	2.20E+02	5.00E+01	1.00E+00	No
HEXACHLOROETHANE	Semi-Volatiles	67-72-1	4.80E+00		2.00E+00	No
INDENO[1,2,3-C,D]PYRENE	Semi-Volatiles	193-39-5	2.90E-02		2.00E+00	>RSL
ISOPHORONE	Semi-Volatiles	78-59-1	7.10E+01		1.00E+01	No
M/P-CRESOL	Semi-Volatiles	1319-77-3	9.30E+02		6.20E-02	No
M-NITROANILINE	Semi-Volatiles	99-09-2			1.00E+00	No
NAPHTHALENE	Semi-Volatiles	91-20-3	1.40E-01		1.00E+01	>RSL
NITROBENZENE	Semi-Volatiles	98-95-3	1.20E-01		1.00E+00	>RSL
N-NITROSODIPHENYLAMINE	Semi-Volatiles	86-30-6	1.40E+01		1.50E+00	No
N-NITROSODIPROPYLAMINE	Semi-Volatiles	621-64-7	9.60E-03		2.00E+00	>RSL
O-CRESOL (2-METHYLPHENOL)	Semi-Volatiles	95-48-7	1.80E+03		1.00E+00	No
PENTACHLOROPHENOL	Semi-Volatiles	87-86-5	1.70E-01	1.00E+00	1.00E+00	>RSL
PHENANTHRENE	Semi-Volatiles	85-01-8			2.00E+00	No
PHENOL	Semi-Volatiles	108-95-2	1.10E+04		2.00E+00	No
P-NITROANILINE	Semi-Volatiles	100-01-6	3.40E+00		8.00E+00	>RSL
PYRENE	Semi-Volatiles	129-00-0	1.10E+03		2.00E+00	No
1,1,1-TRICHLOROETHANE	Volatiles	71-55-6	9.10E+03	2.00E+02	2.00E+00	No
1,1,2,2-TETRACHLOROETHANE	Volatiles	79-34-5	6.70E-02		2.00E+00	>RSL

Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018

SRNS-RP-2018-00261  
Rev. 0  
Page 145 of 154

Table 15. CRDLs Compared to Risk-Based Screening Levels for Surface Water and Groundwater (Continued)

Analyte	Analyte Group	CAS	Tap Water RSL (ug/L)	MCL (ug/L)	CRDL (ug/L)	CRDL > MCL/RSL
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Volatiles	76-13-1	5.90E+04		1.00E+01	No
1,1,2-TRICHLOROETHANE	Volatiles	79-00-5	2.40E-01	5.00E+00	1.00E+00	>RSL
1,1-DICHLOROETHANE	Volatiles	75-34-3	2.40E+00		1.00E+00	No
1,1-DICHLOROETHENE	Volatiles	75-35-4	3.40E+02	7.00E+00	1.90E+01	>MCL
1,2,3-TRICHLOROBENZENE	Volatiles	87-61-6	2.90E+01		8.80E-01	No
1,2,4-TRICHLOROBENZENE	Volatiles	120-82-1	2.30E+00	7.00E+01	1.40E-01	No
1,2-DIBROMO-3-CHLOROPROPANE	Volatiles	96-12-8	3.20E-04	2.00E-01	1.00E+00	>RSL/MCL
1,2-DIBROMOETHANE	Volatiles	106-93-4	6.50E-03	5.00E-02	2.00E+00	>RSL/MCL
1,2-DICHLOROBENZENE	Volatiles	95-50-1	3.70E+02		6.00E+02	1.00E+00
1,2-DICHLOROETHANE (EDC)	Volatiles	107-06-2	1.50E-01	5.00E+00	4.00E-01	>RSL
1,2-DICHLOROPROPANE	Volatiles	78-87-5	3.90E-01	5.00E+00	1.00E+01	>RSL/MCL
1,3-DICHLOROBENZENE	Volatiles	541-73-1			2.00E+00	No
1,4-DICHLOROBENZENE	Volatiles	106-46-7	4.30E-01	7.50E+01	8.00E+00	>RSL
2-HEXANONE	Volatiles	591-78-6	4.70E+01		2.00E+00	No
ACETONE	Volatiles	67-64-1	2.20E+04		2.00E+00	No
BENZENE	Volatiles	71-43-2	4.10E-01	5.00E+00	2.00E+00	>RSL
BROMOCHLOROMETHANE	Volatiles	74-97-5	8.30E+01		1.00E+01	No
BROMODICHLOROMETHANE	Volatiles	75-27-4	1.20E-01		1.00E+00	>RSL
BROMOFORM (TRIBROMOMETHANE)	Volatiles	75-25-2	8.50E+00		1.00E+00	No
BROMOMETHANE (METHYL BROMIDE)	Volatiles	74-83-9	8.70E+00		9.60E-03	No
CARBON DISULFIDE	Volatiles	75-15-0	1.00E+03		1 <sup>a</sup>	No
CARBON TETRACHLORIDE	Volatiles	56-23-5	4.40E-01	5.00E+00	2.00E+00	>RSL
CHLOROBENZENE	Volatiles	108-90-7	9.10E+01	1.00E+02	1.00E-01	No
CHLOROETHANE	Volatiles	75-00-3	2.10E+04		2.00E+00	No
CHLOROETHENE (VINYL CHLORIDE)	Volatiles	75-01-4	1.60E-02	2.00E+00	1.00E+00	>RSL
CHLOROFORM	Volatiles	67-66-3	1.90E-01		6.50E+00	>RSL
CHLOROMETHANE (METHYL CHLORIDE)	Volatiles	74-87-3	1.90E+02		2.00E+00	No
CIS-1,2-DICHLOROETHENE	Volatiles	156-59-2	3.70E+02	7.00E+01	2.00E-01	No
CIS-1,3-DICHLOROPROPENE	Volatiles	10061-01-5			6.00E-01	No
CUMENE (ISOPROPYLBENZENE)	Volatiles	98-82-8	6.80E+02		1.00E+00	No
CYCLOHEXANE	Volatiles	110-82-7	1.30E+04		1.50E+01	No
DIBROMOCHLOROMETHANE	Volatiles	124-48-1	1.50E-01	8.0E+01	2.00E+00	>RSL
DICHLORODIFLUOROMETHANE	Volatiles	75-71-8	2.00E+02		7.50E-04	No
DICHLOROMETHANE (METHYLENE CHLORIDE)	Volatiles	75-09-2	4.80E+00	5.00E+00	1.00E+00	No
ETHANE	Volatiles	74-84-0			3.60E-02	No
ETHENE	Volatiles	74-85-1			7.00E-03	No
ETHYLBENZENE	Volatiles	100-41-4	1.50E+00	7.00E+02	6.00E+00	>RSL
M,P-XYLENE	Volatiles	1330-20-7	2.00E+02	1.00E+04	4.00E-01	No
METHYL ACETATE	Volatiles	79-20-9	3.70E+04		1.00E+00	No
METHYL ETHYL KETONE	Volatiles	78-93-3	7.10E+03		2.00E+01	No
METHYL ISOBUTYL KETONE	Volatiles	108-10-1	2.00E+03		1.00E+01	No
METHYL TERTIARY BUTYL ETHER (MTBE)	Volatiles	1634-04-4	1.20E+01		2.00E+00	No
METHYLCYCLOHEXANE	Volatiles	108-87-2			1.50E+02	No
N-BUTANE	Volatiles	106-97-8			2.40E-02	No
N-PENTANE	Volatiles	109-66-0	2.10E+03			
O-XYLENES	Volatiles	95-47-6	2.00E+02		1.00E+00	No
PROPANE	Volatiles	74-98-6			1.00E-02	No
STYRENE	Volatiles	100-42-5	1.60E+03	1.00E+02	5.00E+01	No
TETRACHLOROETHENE (PCE)	Volatiles	127-18-4	1.10E-01	5.00E+00	2.00E+00	>RSL
TOLUENE	Volatiles	108-88-3	2.30E+03	1.00E+03	1.00E+01	No
TRANS-1,2-DICHLOROETHENE	Volatiles	156-60-5	1.10E+02	1.00E+02	2.00E-01	No
TRANS-1,3-DICHLOROPROPENE	Volatiles	10061-02-6			8.00E+00	No
TRICHLOROETHENE (TCE)	Volatiles	79-01-6	2.00E+00	5.00E+00	1.00E+00	No
TRICHLOROFLUOROMETHANE	Volatiles	75-69-4	1.30E+03		2.00E-01	No

<sup>a</sup> Laboratories instructed to obtain lowest detection limit.

CAS = Chemical Abstracts Service.

CRDL = Contract-required detection limit.

MCL = Maximum contaminant level.

RSL = Regional screening level.

>RSL means CRDL is greater than the RSL.

>MCL means CRDL is greater than the MCL.

>RSL/MCL means CRDL is greater than both the RSL and MCL.

Source of RSLs: Regional screening level for chemical contaminants. <https://www.epa.gov/risk/regional-screening-levels-table-generic-table-10-17>

**Table 16. MDA Compared to Water Radiological MCL/PRG**

Analyte	Typical MDA (pCi/L)	MCL/PRG (pCi/L)	MDA>MCL/PRG
Strontium-90	0.852	8	No
Tritium	0.5	20,000	No

<sup>a</sup> Modified from WSRC 2001a.

MCL = Maximum contaminant level.

MDA = Minimum detected activity.

PRG = Preliminary remediation goal.

Note: All MDAs are sample-specific. The MDAs represented above are typical MDAs as reported by the subcontract laboratories but are not always achievable.

**Table 17. Data Quality Objective Worksheet for Surface Water and Groundwater Media**

	Pathway (Media)	Probable Conditions	Exposure Pathway and/or Release Mechanisms	Data Needs and DQOs Including Engineering/Physical Processes	Characterization Field Activities	Parameters
Characterization Activities	Surface Water	Contaminated groundwater above screening levels discharging into Steel Creek	Ingestion or dermal contact with surface water	Determine areas of impact to and in Steel Creek impacted by contaminated groundwater discharges above appropriate risk-based screening levels	<ol style="list-style-type: none"> <li>1. Collection of surface water samples at additional sample locations between existing sampling locations SC-03 and SC-04</li> <li>2. Install shallow well points along the bank of Steel Creek and collect data</li> </ol>	TCL VOCs and tritium
	Groundwater	Contaminated groundwater elevated above risk-based screening levels	Ingestion or dermal contact with groundwater, showering (includes inhalation and dermal), or inhalation of groundwater vapor	Determine extent of groundwater contamination in the elbow portion of the distal area of the VOC groundwater plumes and at the western most end of the distal area	<ol style="list-style-type: none"> <li>1. Collection of soil samples to define extent of groundwater contamination</li> <li>2. Install a well cluster consisting of one (1) UAZ and LAZ well between the Neck and Distal Areas</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced list of VOCs (see Table 12)</li> <li>2. TCL VOCs and tritium (see Table 12)</li> </ol>
Long-Term Monitoring	Surface Water	Surface water impacted by discharges of contaminated groundwater	Ingestion or dermal contact with surface water	Long-term contaminant monitoring data for development of trends and assessment on overall impact to Steel Creek	Collection of surface water samples from four (4) existing locations	Reduced list of VOCs and tritium (see Table 13)
	Groundwater	Contaminated groundwater elevated above risk-based screening levels  Varying groundwater flow directions and rates resulting in multiple plumes; both vertically and laterally  Known VOC and tritium plumes are comingled	Ingestion or dermal contact with groundwater, showering (includes inhalation and dermal), or inhalation of groundwater vapor	Establish long-term permanent groundwater monitoring in the UAZ, LAZ, and GAU to develop contaminant trends and assess flow and transport	Collect groundwater data from existing wells within the PAGW OU	Reduced list of VOCs, tritium, TAL metals, strontium-90, gross alpha, nonvolatile beta (see Table 13)

**Table 18. Offsite Laboratory Analytical Specifications Table for Specific TCL Analytes: Soil Media (Distal Area Characterization)**

Analyte	Analyte ID	Preparation <sup>B</sup> Method	EPA <sup>B</sup> Method	CRDL <sup>A</sup> (mg/kg)
<b>Volatiles</b>				
1,1,1-Trichloroethane	71-55-6	5035A	EPA8260B	0.00118
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5035A	EPA8260B	C
1,1-Dichloroethylene	75-35-4	5035A	EPA8260B	0.000054
Benzene	71-43-2	5035A	EPA8260B	0.000823
Carbon tetrachloride	56-23-5	5035A	EPA8260B	0.00122
Chloroethene (Vinyl chloride)	75-01-4	5035A	EPA8260B	0.00015
Chloroform	67-66-3	5035A	EPA8260B	0.00142
cis-1,2-Dichloroethylene	156-59-2	5035A	EPA8260B	C
Dichloromethane (Methylene chloride)	75-09-2	5035A	EPA8260B	0.00165
Tetrachloroethylene (PCE)	127-18-4	5035A	EPA8260B	0.00142
Toluene	108-88-3	5035A	EPA8260B	0.00107
trans-1,2-Dichloroethylene	156-60-5	5035A	EPA8260B	0.002
Trichloroethylene (TCE)	79-01-6	5035A	EPA8260B	0.00137
Trichlorofluoromethane	75-69-4	5035A	EPA8260B	0.002

A) CRDL is the Contract Required Detection Limit and is not always attainable.

B) Extraction and preparation methods differ depending upon media, concentration, instrument, laboratory, and analytical method. Preparation methods will also influence detection limits.

C) Laboratory instructed to obtain the lowest possible method detection limit.

**Table 19. SRNL Laboratory Analytical Specifications Table for VOC Analytes: Soil Media (Distal Area Characterization)**

Analyte	Analyte ID	Preparation <sup>B</sup> Method	MDL <sup>A</sup> (mg/kg)
<b>Volatiles</b>			
1,1,1-Trichloroethane	71-55-6	Procedure 2.008	0.00087
1,1-Dichloroethylene	75-35-4	Procedure 2.008	0.00141
Benzene	71-43-2	Procedure 2.008	0.00103
Carbon tetrachloride	56-23-5	Procedure 2.008	0.00097
Chloroethene (Vinyl chloride)	75-01-4	Procedure 2.008	0.00216
Chloroform	67-66-3	Procedure 2.008	0.00085
cis-1,2-Dichloroethylene	156-59-2	Procedure 2.008	0.00141
Dichloromethane (Methylene chloride)	75-09-2	Procedure 2.008	
Tetrachloroethylene (PCE)	127-18-4	Procedure 2.008	0.00090
Toluene	108-88-3	Procedure 2.008	0.00074
trans-1,2-Dichloroethylene	156-60-5	Procedure 2.008	0.00144
Trichloroethylene (TCE)	79-01-6	Procedure 2.008	0.00087

A) MDL is the Method Detection Limit and is not always attainable.

B) Headspace samples to be analyzed by SRNL per SRNS Manual L32 Procedure 2.008

Table 20. Offsite Laboratory Analytical Specifications Table for TAL/TCL Analytes: Surface or Groundwater Media

Analyte*	Analyte ID	Preparation <sup>B</sup> Method	Analytical <sup>B</sup> Method	CRDL <sup>A</sup> (µg/L)
<b>Target Analyte List</b>				
<b>Metals</b>				
Aluminum	7429-90-5	3005A,3015A	EPA6010C	2.0
Antimony	7440-36-0	3005A,3015A	EPA6010C	2.0
Arsenic	7440-38-2	3005A,3015A	EPA6010C	2.0
Barium	7440-39-3	3005A,3015A	EPA6010C	1.0
Beryllium	7440-41-7	3005A,3015A	EPA6010C	2.0
Cadmium	7440-43-9	3005A,3015A	EPA6010C	2.0
Calcium	7440-70-2	3005A,3015A	EPA6010C	2.0
Chromium	7440-47-3	3005A,3015A	EPA6010C	2.0
Cobalt	7440-48-4	3005A,3015A	EPA6010C	2.0
Copper	7440-50-8	3005A,3015A	EPA6010C	2.0
Iron	7439-89-6	3005A,3015A	EPA6010C	13.0
Lead	7439-92-1	3005A,3015A	EPA6010C	3.4
Magnesium	7439-95-4	3005A,3015A	EPA6010C	2.0
Manganese	7439-96-5	3005A,3015A	EPA6010C	2.0
Mercury	7439-97-6	3005A,3015A	EPA7471B	2.0
Nickel	7440-02-0	3005A,3015A	EPA6010C	2.0
Potassium	7440-09-7	3005A,3015A	EPA6010C	2.0
Selenium	7782-49-2	3005A,3015A	EPA6010C	10.0
Silver	7440-22-4	3005A,3015A	EPA6010C	2.0
Sodium	7440-23-5	3005A,3015A	EPA6010C	2.0
Thallium	7440-28-0	3005A,3015A	EPA6010C	2.0
Vanadium	7440-62-2	3005A,3015A	EPA6010C	10.0
Zinc	7440-66-6	3005A,3015A	EPA6010C	2.0
<b>Volatiles</b>				
1,1,1-Trichloroethane	71-55-6	5021A,5030C,5031,5032	EPA8260B	2.0
1,1,2,2-Tetrachloroethane	79-34-5	5021A,5030C,5031,5032	EPA8260B	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5021A,5030C,5031,5032	EPA8260B	10.0
1,1,2-Trichloroethane	79-00-5	5021A,5030C,5031,5032	EPA8260B	1.0
1,1-Dichloroethane	75-34-3	5021A,5030C,5031,5032	EPA8260B	1.0
1,1-Dichloroethylene	75-35-4	5021A,5030C,5031,5032	EPA8260B	19.0
1,2,4-Trichlorobenzene	120-82-1	5021A,5030C,5031,5032	EPA8260B	0.14
1,2-Dibromo-3-chloropropane	96-12-8	5021A,5030C,5031,5032	EPA8260B	1.0
1,2-Dibromoethane	106-93-4	5021A,5030C,5031,5032	EPA8260B	2.0
1,2-Dichlorobenzene	95-50-1	5021A,5030C,5031,5032	EPA8260B	1.0
1,2-Dichloroethane (EDC)	107-06-2	5021A,5030C,5031,5032	EPA8260B	0.4
1,2-Dichloropropane	78-87-5	5021A,5030C,5031,5032	EPA8260B	10.0
1,3-Dichlorobenzene	541-73-1	5021A,5030C,5031,5032	EPA8260B	2.0
1,4-Dichlorobenzene	106-46-7	5021A,5030C,5031,5032	EPA8260B	8.0
2-Hexanone	591-78-6	5021A,5030C,5031,5032	EPA8260B	2.0
Acetone	67-64-1	5021A,5030C,5031,5032	EPA8260B	2.0
Benzene	71-43-2	5021A,5030C,5031,5032	EPA8260B	2.0
Bromodichloromethane	75-27-4	5021A,5030C,5031,5032	EPA8260B	1.0
Bromoform (Tribromomethane)	75-25-2	5021A,5030C,5031,5032	EPA8260B	1.0
Bromomethane (Methyl bromide)	74-83-9	5021A,5030C,5031,5032	EPA8260B	0.0096

**Table 20. Offsite Laboratory Analytical Specifications Table for TAL/TCL Analytes: Surface or Groundwater Media (Continued)**

Analyte*	Analyte ID	Preparation <sup>B</sup> Method	Analytical <sup>B</sup> Method	CRDL <sup>A</sup> (µg/L)
Carbon disulfide	75-15-0	5021A,5030C,5031,5032	EPA8260B	C
Carbon tetrachloride	56-23-5	5021A,5030C,5031,5032	EPA8260B	2.0
Chlorobenzene	108-90-7	5021A,5030C,5031,5032	EPA8260B	10.0
Chloroethane	75-00-3	5021A,5030C,5031,5032	EPA8260B	2.0
Chloroethene (Vinyl chloride)	75-01-4	5021A,5030C,5031,5032	EPA8260B	1.0
Chloroform	67-66-3	5021A,5030C,5031,5032	EPA8260B	6.5
Chloromethane (Methyl chloride)	74-87-3	5021A,5030C,5031,5032	EPA8260B	2.0
cis-1,2-Dichloroethylene	156-59-2	5021A,5030C,5031,5032	EPA8260B	0.2
cis-1,3-Dichloropropene	10061-01-5	5021A,5030C,5031,5032	EPA8260B	0.6
Cumene (Isopropylbenzene)	98-82-8	5021A,5030C,5031,5032	EPA8260B	1.0
Cyclohexane	110-82-7	5021A,5030C,5031,5032	EPA8260B	15.0
Dibromochloromethane	124-48-1	5021A,5030C,5031,5032	EPA8260B	2.0
Dichlorodifluoromethane	75-71-8	5021A,5030C,5031,5032	EPA8260B	0.00075
Dichloromethane (Methylene chloride)	75-09-2	5021A,5030C,5031,5032	EPA8260B	1.0
Ethylbenzene	100-41-4	5021A,5030C,5031,5032	EPA8260B	6.0
Methyl acetate	79-20-9	5021A,5030C,5031,5032	EPA8260B	1.0
Methyl ethyl ketone	78-93-3	5021A,5030C,5031,5032	EPA8260B	20.0
Methyl isobutyl ketone	108-10-1	5021A,5030C,5031,5032	EPA8260B	10.0
Methyl tertiary butyl ether (MTBE)	1634-04-4	5021A,5030C,5031,5032	EPA8260B	2.0
Methylcyclohexane	108-87-2	5021A,5030C,5031,5032	EPA8260B	150.0
Styrene	100-42-5	5021A,5030C,5031,5032	EPA8260B	50.0
Tetrachloroethylene (PCE)	127-18-4	5021A,5030C,5031,5032	EPA8260B	2.0
Toluene	108-88-3	5021A,5030C,5031,5032	EPA8260B	10.0
trans-1,2-Dichloroethylene	156-60-5	5021A,5030C,5031,5032	EPA8260B	0.2
trans-1,3-Dichloropropene	10061-02-6	5021A,5030C,5031,5032	EPA8260B	8.0
Trichloroethylene (TCE)	79-01-6	5021A,5030C,5031,5032	EPA8260B	1
Trichlorofluoromethane	75-69-4	5021A,5030C,5031,5032	EPA8260B	0.2
o-Xylenes	95-47-6	5021A,5030C,5031,5032	EPA8260B	1.0
m,p-Xylene	MPXYL	5021A,5030C,5031,5032	EPA8260B	0.4
Bromochloromethane	74-97-5	5021A,5030C,5031,5032	EPA8260B	10.0
1,4-Dioxane	123-91-1	5021A,5030C,5031,5032	EPA8260B	6.0
1,2-Dichlorobenzene	95-50-1	5021A,5030C,5031,5032	EPA8260B	1.0
1,2,3-Trichlorobenzene	87-61-6	5021A,5030C,5031,5032	EPA8260B	0.88

\*This table provides a comprehensive listing of TAL/TCL analytes. Characterization efforts and long-term surface water and groundwater monitoring will have varying analyte requirements (see Tables 12 and 13).

- A) CRDL is the Contract Required Detection Limit and is not always attainable.  
 B) Extraction and preparation methods differ depending upon media, concentration, instrument, laboratory, and analytical method. Preparation methods will also influence detection limits.  
 C) Laboratory instructed to obtain the lowest possible method detection limit

**Table 21. Laboratory Analytical Specifications Table for Radiological Analytes in Soil, Sediment, Surface, and Groundwater Media**

<b>Radionuclides</b>			
<b>Isotope</b>	<b>Typical Soil MDAs</b>	<b>Typical Water MDAs</b>	<b>Analytical Method<sup>b</sup></b>
<b>Alpha Spectroscopy</b>			
Americium-241	0.50	0.40	NNS
Americium-243	0.50	0.462	NNS
Curium-243/244	0.351	0.503	NNS
Curium-245/246	0.416	0.458	NNS
Neptunium-237	0.07	0.771	NNS
Plutonium-238	0.50	0.35	NNS
Plutonium-239/240	0.50	0.353	NNS
Plutonium-242	0.50	0.372	NNS
Thorium-228	0.50	0.445	NNS
Thorium-230	0.50	0.523	NNS
Thorium-232	0.50	0.45	NNS
Uranium-233/234	0.50	0.663	NNS
Uranium-235	0.206	0.684	NNS
Uranium 238	0.50	0.744	NNS
<b>Gamma Pulse Height Analyses</b>			
Actinium-228	0.30	25.00	NNS
Cesium-137	0.15	5.0	NNS
Cobalt-60	0.03	10.00	NNS
Lead-214	0.25	20.00	NNS
Potassium-40	1.00	75.00	NNS
<b>Rad Indicators</b>			
Gross Alpha	3.000	3.00	EPA900.0MOD
Nonvolatile beta	4.000	4.00	EPA900.0MOD
<b>Individual Analyses</b>			
Carbon-14	2.00	10.00	NNS
Iodine-129	2.00	1.00	NNS
Nickel-59	3.38	20.00	NNS
Nickel-63	4.00	10.00	NNS
Promethium-147	10.00	10.00	NNS
Radium-226	0.895	0.30	EPA903.0MOD
Radium-228	1.29	0.50	EPA903.0MOD
Strontium-90	2.00	0.852	NNS
Technetium-99	5.00	17.3	NNS
Tritium	6.00	0.50	EPA906.0MOD

Note: All MDAs are sample-specific. The MDAs represented above are typical MDAs as reported by the subcontract laboratories but are not always achievable.

NNS = No National Standard

**Sampling and Analysis Plan Addendum for PAGW OU (U)**  
**Savannah River Site**  
**February 2018**

**SRNS-RP-2018-00261**  
**Rev. 0**  
**Page 152 of 154**

**Table 22. Preservatives, Holding Times, and Sample Containers**

Parameter	Preservatives		Holding Time		Containers	
	Aqueous	Solid	Aqueous	Solid	Aqueous	Solid
<b>Volatile Organic Compounds (VOCs)</b> Including: 8260- VOCs, 8021 – Aromatic VOCs, 8021 Halogenated VOCs, 8015 – Nonhalogenated VOCs, 8032 - Acrylamide	<u>No Residual Chlorine</u> Adjust pH to <2 with H <sub>2</sub> SO <sub>4</sub> , HCL, or solid sodium bisulfate (NaHSO <sub>4</sub> ). Cool to 4° C	<u>Low-level soil</u> Add ~5 g soil to 40 mL VOA vial preserved with 1 g of NaHSO <sub>4</sub> /5 mL water	14 days	<u>Low/High Level</u> 14 days`	3x40 mL glass VOC vial, PTFE septa cap	3x40 (or 60) mL glass VOA vial (with stir bar for low-level soil), PTFE septa cap
SRNL VOCs	Cool to 4° C.	Cool to 4° C.	14 days	14 days	20 mL Flat Bottomed Headspace Vial	20 mL Flat Bottomed Headspace Vial
<b>Metals</b> (except Chromium (VI) & Mercury)	HNO <sub>3</sub> to pH < 2	Cool to 4° C.	6 months	6 months	1 L HDPE	250 mL CWM (metals and cyanide may be collected in the same container for soils)
Mercury	HNO <sub>3</sub> to pH < 2	Cool to 4° C.	28 days	28 days	250 mL HDPE or glass	250 mL CWM
Chromium (VI)	Cool to 4° C.	Cool to 4° C.	24 hours	24 hours	250 mL HDPE	250 mL CWM
<b>Miscellaneous</b>						
Chloride	NA	NA	28 days	28 days	125 mL HDPE	125 mL CWM
Common Ions	Cool to 4° C.	Cool to 4° C.	28 days	28 days	1 L glass	250 mL CWM
Nitrate	Cool to 4° C.	Cool to 4° C.	48 hours	48 hours	250 mL HDPE	250 mL CWM
Nitrate-Nitrite	Cool to 4° C. H <sub>2</sub> SO <sub>4</sub> to pH < 2.	Cool to 4° C.	28 days	28 days	250 mL HDPE	250 mL CWM
Nitrite	Cool to 4° C.	NA	48 hours	NA	125 mL HDPE	NA
Organic Carbon, Total	Adjust pH to < 2 with H <sub>2</sub> SO <sub>4</sub> , HCL, or solid NaSO <sub>4</sub> . Cool to 4° C and store in dark.	Cool to 4° C.	28 days	28 days	125 mL HDPE	125 mL CWM
Phosphorus (Total)	Cool to 4° C. H <sub>2</sub> SO <sub>4</sub> to pH < 2.	NA	28 days	NA	125 mL HDPE	NA
Radiological Test Gross Alpha	HNO <sub>3</sub> to pH < 2.	Cool to 4° C.	6 months	6 months	2 L HDPE	250 mL HDPE
Radiological Test Nonvolatile Beta	HNO <sub>3</sub> to pH < 2.	Cool to 4° C.	6 months	6 months	2 L HDPE	250 mL HDPE
Radium Total	HNO <sub>3</sub> to pH < 2.	Cool to 4° C.	6 months	6 months	2 L HDPE	250 mL HDPE
Tritium	None Cool 0 to 6 C	None Cool 0 to 6 C	180 days	180 days	250 Amber Glass	250 HDPE or 4 oz Amber Glass
Sulfate	Cool to 4° C.	Cool to 4° C.	28 days	28 days	125 mL HDPE	125 mL CWM

**Sampling and Analysis Plan Addendum for PAGW OU (U)  
Savannah River Site  
February 2018**

**SRNS-RP-2018-00261  
Rev. 0  
Page 153 of 154**

**Table 22. Preservatives, Holding Times, and Sample Containers (Continued)**

Parameter	Preservatives		Holding Time		Containers	
	Aqueous	Solid	Aqueous	Solid	Aqueous	Solid
Sulfide	Cool to 4° C and add 4 drops zinc acetate and NaOH to pH > 9.	Add 2 N zinc acetate until moistened and cool to 4° C.	7 days	7 days	1 L HDPE	250 mL CWM
<p>Abbreviations used in Table:</p> <p>H<sub>2</sub>SO<sub>4</sub> – Sulfuric acid  HCL – Hydrochloric acid  PTFE – Teflon lined seals  CWM – Clear Wide-Mouth Glass Jar  AG – Amber Glass Jar  HNO<sub>3</sub> – Nitric acid  HDPE – High-Density Polyethylene plastic bottle</p>						

**Table 23. Minimum Field Quality Control/Quality Assurance Sampling Requirements**

<b>Data Quality Level</b>	<b>Field Quality Control/Quality Assurance Samples</b>	<b>Frequency of Field Quality Control/Quality Assurance Sample</b>
VV <sup>a</sup>	Co-located Field Duplicate	Minimum 5% <sup>1</sup>
	Trip Blank	Minimum 1 per cooler
	Split Sample	Minimum 5%
SD <sup>b</sup>	Co-located Field Duplicate	Minimum 5% <sup>1</sup>
	Trip Blank	1 per cooler
	Equipment Blank	1 per borehole <sup>2</sup>
	Field Blank	1 per borehole <sup>3</sup>
	Split Sample	Minimum 5%

Data Quality Levels

VV Data      Verified and Validated Data (validated to automated criteria; equivalent to USEPA Screening Level Data)

SD Data      USEPA Screening Level Data with 10% Verified and Validated Data Confirmation

Footnotes:

<sup>a</sup> VV qualified data applies to surface water and groundwater samples collected as part of Steel Creek and distal area characterizations. In addition, VV data will be used for long-term surface water and groundwater sampling. No equipment or field blanks will be collected due to the use of dedicated equipment.

<sup>b</sup> SD qualified data applies to soil samples collected from the 30 borings to delineate the extent of VOC groundwater contamination in the distal area of the VOC groundwater plumes.

1. Minimum frequency established per ER-SOP-043
2. Based on project needs (typical frequency is 1 per 40 samples)
3. Based on project needs