

# Calculation of Exposure Point Concentrations for the 100-KR-4 Groundwater Operable Unit

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788

**CH2MHILL**  
Plateau Remediation Company

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# Calculation of Exposure Point Concentrations for the 100-KR-4 Groundwater Operable Unit

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**APPROVED**

*By Janis D. Aardal at 3:04 pm, Sep 04, 2018*

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Release Approval

Date

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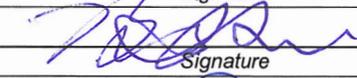
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## Terms

95% UCL	95% upper confidence limit
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CLT	central limit theorem
ECF	environmental calculation file
ERMA	environmental risk management archive
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
EQL	estimated quantitation limit
HEIS	Hanford Environmental Information System
HWIS	Hanford Well Information System
MDA	minimum detectable activity
MDL	method detection limit
OU	operable unit
RI/FS	remedial investigation/feasibility study
RME	reasonable maximum exposure
RUM	Ringold Formation upper mud
SAP	sampling and analysis plan
SME	subject matter expert
SVOC	semi-volatile organic compound
TIC	tentatively identified compound
TPH	total petroleum hydrocarbon
UCL	upper confidence limit
VOC	volatile organic compound

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## 1 Purpose

The purposes of this environmental calculation file (ECF) are listed below:

- Document the selection, verification and refinement requirements of the 100-KR-4 Groundwater Operable Unit (OU) data to ensure that appropriate data are used for risk assessment purposes.
- Document the data processing and reduction steps taken to prepare the 100-KR-4 Groundwater OU data set that will be used for calculation of 95% upper confidence limits of the arithmetic mean (UCLs) for analytes detected in this OU.
- Describe the statistical methodology used to calculate values for the 95% UCL.
- Present the logic for computing exposure point concentrations (EPCs) for the wells identified for evaluation of the 100-KR-4 Groundwater OU both individually and as a group and document the results of the computation.

This ECF supports the remedial investigation/feasibility study (RI/FS) process being conducted for the 100-KR-4 Groundwater OU under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as documented in DOE/RL-2010-97, *Remedial Investigation/Feasibility Study for the 100-KR-1, 100-KR, and 100-KR-4 Operable Units*.

## 2 Background

This ECF addresses a key element of the risk assessment process for hazardous waste sites: estimation of the concentration of a chemical in the environment. An EPC is a conservative estimate of the contaminant concentration at an exposure point or in an exposure area where an exposed receptor may reasonably be assumed to move at random and where contact with an environmental medium (e.g., water) is equally likely at all locations within the exposure area. The rationale for use of exposure concentrations is explained in EPA/540/1-89/002, *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A): Interim Final*:

“Although this concentration does not reflect the maximum concentration that could be contacted at any one time, it is regarded as a reasonable estimate of the concentration likely to be contacted over time. This is because in most situations, assuming long-term contact with the maximum concentration is not reasonable.”

OSWER 9285.6-10, *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*, states that “an exposure point concentration (EPC) is a conservative estimate of the average chemical concentration in an environmental medium.” OSWER Publication 9285.7-081, *Supplemental Guidance to RAGS: Calculating the Concentration Term*, states that, “because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent upper confidence limit (UCL) of the arithmetic mean should be used for this variable.” (OSWER 9285.6-10 is the update to OSWER Publication 9285.7-081.) Use of the 95% UCL yields risk estimates that correspond to a reasonable maximum exposure (RME).

OSWER 9285.6-10 also states that “The EPC is determined for each individual exposure unit within a site. An exposure unit is the area throughout which a receptor moves and encounters an environmental medium for the duration of the exposure. Unless there is site-specific evidence to the contrary, an individual receptor is assumed to be equally exposed to media within all portions of the exposure unit over the time frame of the risk assessment.” For this ECF, the concept of “exposure unit” is applied to both the individual wells within the 100-KR-4 Groundwater OU and to the OU as a whole.

### 3 Methodology

The EPC calculation methodology involves evaluating well-specific analytical data sets for 82 groundwater wells identified in the 100-KR-4 Groundwater OU. Twenty monitoring wells are screened at the top of the unconfined aquifer, 20 monitoring wells are screened across the upper unconfined aquifer, three monitoring wells are screened across the lower unconfined aquifer, one monitoring well is screened in the upper and lower unconfined aquifer, nine monitoring wells are screened across the entire aquifer, and two monitoring wells are screened in the Ringold Formation upper mud (RUM). Three wells are combined for evaluation purposes and are considered to be screened across the upper unconfined aquifer. One extraction well is screen across the top of the unconfined aquifer, nine extraction wells screened across the upper unconfined aquifer, and fourteen extraction wells are screened across the entire aquifer. These wells are listed in Table B-1. The methodology also includes evaluation of a composite data set containing analytical data from all 82 wells grouped together.

The following provides an overview of the methodology used to retrieve the analytical data from HEIS, verify and refine the data set for risk assessment purposes, process and reduce the data set, the tools used to calculate the 95% UCL for each detected analyte, and the logic used to compute the EPC value for each analyte detected in each well and all wells as a group.

1. Identify the time period and the list of wells to be evaluated.
2. Obtain a data set that corresponds to the identified time period and list of wells and meets requirements for risk assessment activities from HEIS.
3. Verify the results contained in the data set are appropriate for risk assessment; refine data set as needed.
4. Process and reduce results based on data qualification, review, and validation flags.
5. Process the data sets to remove analytes that have not been detected in any of the samples from the 100-KR-4 Groundwater OU.
6. Process and reduce results reported by multiple analytical methods.
7. Process and reduce the data sets to obtain a single set of results per sampling location and time of collection.
8. Process the data sets to remove results for analytes meeting exclusion criteria.
9. Process the data sets using ProUCL 5.1 and obtain the UCL and raw statistics output files.
10. Summarize the ProUCL 5.1 statistical results for detected analytes in each well and all wells as a group.
11. Compute the EPC for each detected analyte in each well and all wells as a group.

The following subsections provide descriptions of each step in the methodology.

#### 3.1 Initial Data Set

The following steps are performed to obtain an initial data set for performing risk assessment for groundwater wells identified in the 100-KR-4 Groundwater OU.

- a) Identify the time period and the list of wells to be evaluated.

- b) Obtain a data set from HEIS that corresponds to the identified time period and list of wells and meets the requirements for risk assessment activities

The data set corresponding to the identified time period and list of wells must meet the following requirements for risk assessment purposes:

- Unfiltered results only (see Section 4.2.1 for more information);
- No field results except for Cr(VI) (see Section 4.2.2 for more information);
- Groundwater sample results with units of pCi/L or µg/L only;
- No gamma spectroscopy-reported results for the follow radionuclides: Americium-241, iodine-129, iodine-131, protactinium-231, radium-226, radium-228, thorium-228, thorium-232, uranium-235, and uranium-238 (see Section 4.2.3 for more information);
- Replicate samples only (no split samples or replicate/split samples);
- Samples collected for routine monitoring purposes only (no in-process, confirmation or characterization samples);

Table 1 summarizes the HEIS database fields and the corresponding values for the 100-KR-4 groundwater data set to ensure these requirements for risk assessment purposes are met.

**Table 1. Initial Data Set Requirements for Risk Assessment Purposes**

HEIS Field	Value	Notes
SAMP_DATE_TIME	10/22/2009 to 04/30/2017	Established by Soil and Groundwater SME
WELL_NAME	See Table B-1	Established by Soil and Groundwater SME
FILTERED_FLAG	“N” only	See Section 4.2.1 for additional information
LAB_CODE	<> “FIELD” except Cr(VI)	Field results are not considered for risk assessment purposes with the exception of Cr(VI); see Section 4.2.2 for additional information
STD_ANAL_UNITS_RPTD	“µg/L” or “pCi/L” only	Mass- and activity-based analytic results for chemicals and radionuclides only
METHOD_NAME	<> “GAMMA_GS” for select radionuclides	See Section 4.2.3 for applicable radionuclides
MEDIA	“GW”	Groundwater only
COLLECTION_PURPOSE	“R” only	Only routine samples (no in-process, characterization or confirmation samples)
LAB_QC	“R” or blank	Replicate and parent samples only (no splits or split/replicates)
STD_SAMP_INTV_TOP	Blank	No samples taken at depth intervals
STD_SAMP_INTV_BOT	Blank	No samples taken at depth intervals

**Table 1. Initial Data Set Requirements for Risk Assessment Purposes**

HEIS Field	Value	Notes
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Notes:

SME = Subject Matter Expert

### 3.2 Verification and Refinement of Data Set

The initial data set from HEIS is verified to meet the requirements documented in Section 3.1 and refined as needed to assure that the analytical results are appropriate for risk assessment purposes. Table 2 summarizes the HEIS database fields reviewed to verify and if necessary, further refine the data set for risk assessment purposes. Documentation of data set refinement resulting from the verification is provided in Section 7.1.

**Table 2. Verification of Initial Data Set**

HEIS Field	Verification	Additional Information
SAMP_DATE_TIME	Verify all sample dates are later than of well construction/completion date	Well construction/completion dates (HWIS)
SAMPLE_COMMENT	Review for data quality-related issues	--
GROUNDWATER_AREA_OF INTEREST	Review for applicability to data set	--
SAMP_DATE_TIME STD_CON_LONG_NAME METHOD_NAME	Review against applicable SAP analytical requirements	OU-specific SAPs
STD_REPORTING LIMIT STD_MDA	Review against SAP analytical requirements	OU-specific SAPs
--	Address additional refinements as needed	Input from RI/FS team as applicable

Notes:

HWIS = Hanford Well Information System

RI/FS = Remedial Investigation/Feasibility Study

OU = Operable Unit

SAP = Sampling and Analysis Plan

SME = Subject Matter Expert

### 3.3 Analytical Data Processing and Reduction

The verified and validated analytical data set used for this evaluation includes the following types of information:

- Data qualification flags from the laboratory, including tentatively identified compounds (TICs) and review and validation qualifiers, including rejected results .

- Analytes not detected in any of the selected wells for the 100-KR-4 Groundwater OU.
- Results for a given analyte reported by more than one analytical method.
- Parent and field duplicate samples.

The analytical data are processed and reduced to eliminate unusable data and to obtain one set of results per sampling location and date of sample collection. The data processing and reduction steps are presented in Figure 1. Descriptions of the data processing and reduction steps are presented in the following subsections.

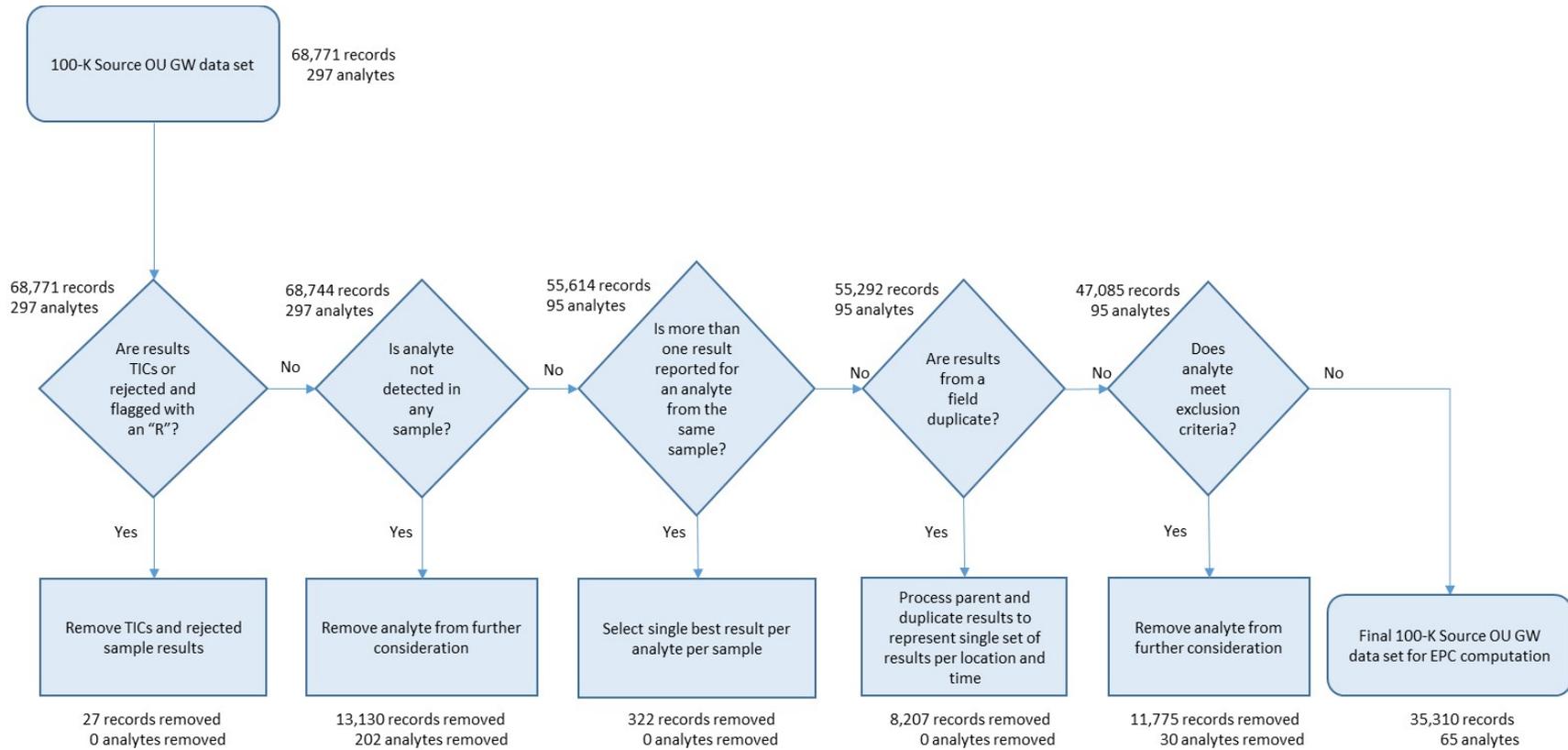


Figure 1. Data Processing and Reduction Steps and Identification of Analytes for 95% UCL Calculation for the 100-KR-4 Groundwater OU Data Set

### 3.3.1 Laboratory Flags and Data Validation or Review Qualifiers

Analytical data are received from the laboratory with data qualification flags. TICs are also flagged by the laboratory. Validation and review qualifiers are assigned during the data validation and review process. The following rules are applied to determine how the sample results can be used for calculating EPCs:

- Sample results flagged with a “U” data qualifier or combination of qualifiers that include a “U”, such as a “UJ”, are considered as nondetected results.
- Sample results without a “U” data qualifier are considered as detected concentrations, including results without qualifiers or with other qualifiers such as “J”.
- Sample results that are flagged as TICs are not used.
- Sample results that are rejected and flagged with an “R” review or validation qualifier are not used.

where:

<i>U</i>	=	Analyzed for but not detected above limiting criteria.
<i>J</i>	=	Estimated value.
<i>R</i>	=	Do not use. Further review indicates the result is not valid.

### 3.3.2 Identify Nondetected Analytes

Analytes that have been collected from appropriate locations, have adequate detection limits, and have not been detected in any of the samples from the 100-KR-4 Groundwater OU are eliminated from further consideration. Any analyte detected at least once in this OU is carried forward to the next step of the process. For example, benzene was not detected in any of the wells identified in the 100-KR-4 Groundwater OU data set and so was not carried forward for calculation of a UCL.

### 3.3.3 Analytes Reported by Numerous Analytical Methods

Often analytical results for analytes are reported by more than one analytical method. Therefore, multiple results for an analyte at the same location and sample date are possible. Because multiple sets of analytical results cannot be used to quantify risk (that is, this would result in multiple counting of a chemical), the set of data that best represents the actual concentration is retained. The results are processed to select the method that provides the most reliable results. Considerations for determining data to be retained include method-associated sample size, detection frequency, method sensitivity, and detection limits. The most conservative (that is, health-protective) use of these types of data is the goal. Larger sample size, higher detection frequencies, and lower detection limits are given higher priority for method selection.

For example, lead may be analyzed using U.S. Environmental Protection Agency (EPA) Method 200.8 (EPA-600/R-94/111, *Methods for the Determination of Metals in Environmental Samples, Supplement I*) with an estimated quantitation limit (EQL) of 2 µg/L or EPA Method 6010 in SW-846, *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*, with an EQL of 50 µg/L. For a sample with lead concentrations reported using both methods, the results reported by EPA Method 200.8 are selected over EPA Method 6010 (SW-846) because of the more sensitive detection limit.

### 3.3.4 Field Duplicate Results

Field duplicate samples are collected in the field and analyzed by the laboratory as unique samples. The parent sample and field duplicate sample are collected from the same location (i.e., monitoring well) on the same date, resulting in more than one sample per location/date. Because multiple sets of analytical results cannot be used to quantify risk (i.e., this would result in multiple-counting of a chemical), the

results for the same location and date are reduced to a single result for each reported analyte. The most conservative (i.e., health-protective) result is the goal. The following criteria are used to reduce multiple sample results for an individual location/date to a single result:

- If two or more detections exist, the maximum concentration is used.
- If at least one detection and one or more nondetected results exist, the detected concentration is used.
- If only two or more nondetected results exist, the lowest detection limit is used.

### 3.4 Identify Analytes for Percent Upper Confidence Limit Calculation

After extracting and processing the data sets, they are further reduced by identifying a subset of analytes that require computation of a UCL. Analytes that meet exclusion criteria are not carried forward for the statistical calculations and EPC selection.

#### 3.4.1 Apply Exclusion Criteria

Application of appropriate exclusion criteria is performed to identify the analytes that require a UCL calculation. Analytes that meet the exclusion criteria are eliminated from further consideration. Analytes that do not meet the exclusion criteria are carried forward into the next step of the process. The following defines the exclusion criteria that are applied:

- Essential nutrients (minerals).
- Background radionuclides that have been identified as not directly related to Hanford operations or processes.
- Radionuclides that have half-lives of less than 3 years and that are not significant risk contributors.
- Analytes without known toxicity information.

#### 3.4.2 Identify Data Sets and Develop ProUCL Input Files

The analytical data for the remaining analytes are extracted from the processed and reduced data set into an Excel file to create a ProUCL input file. A ProUCL input file is produced for each individual well and for all of the wells as a group. This file contains a “results” column for each analyte and a corresponding column that denotes the detection status of the result (1 = detect and 0 = nondetect). For sample results reported as nondetected, the method detection limit (MDL) is taken as the concentration (i.e., the result) and is used in calculating UCLs.

### 3.5 Percent Upper Confidence Limit Calculation Methodology

OSWER 9285.6-10 is the most recent EPA guidance for UCL calculation and ProUCL 5.1 serves as the companion software package for this guidance. ProUCL 5.1 contains rigorous parametric and nonparametric statistical methods (including bootstrap methods for skewed data sets) that can be used on on data sets with nondetect results (results reported below detection limits). Both ProUCL and OSWER 9285.6-10 were used to calculate UCLs for the 100-KR-4 Groundwater OU. ProUCL 5.1 user guidance is provided in EPA/600/R-07/041, *ProUCL Version 5.1 User Guide*.

#### 3.5.1 ProUCL 5.1 Batch Processing

To create ProUCL version 5.1 compatible input files, the well-specific and grouped data sets are written to an Excel file (as described in Section 3.4.2) in a \*.xlsx format. The \*.xlsx files are then imported directly into ProUCL for calculation of UCLs and summary statistics. Batch processing is implemented to

facilitate this process, due to the large number of data sets. The batch processing steps performed for ProUCL processing and data extraction are listed below and summarized in Figure 2.

1. Batch processing of the \*.xlsx files through ProUCL 5.1 to generate a raw statistics output file and a UCL output file for each well and wells as a group.
2. Batch processing of the raw statistics and UCL output files to extract the following information (if available) into an Excel spreadsheet (\*.xlsx file):
  - Well name or group name.
  - Analyte name and Chemical Abstracts Service number.
  - Total number of sample results, total number of detects, and total number of nondetects.
  - Minimum and maximum detection limits for each detected analyte (when available)<sup>1</sup>.
  - Minimum and maximum detected concentrations for each analyte.
  - Mean, median and coefficient of variation for each analyte.
  - The recommended UCL value(s), the UCL basis(es), and comments and/or warning statements for each analyte.

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<sup>1</sup> Minimum and maximum detection limits are summarized in the ProUCL output only when a nondetect result is reported.

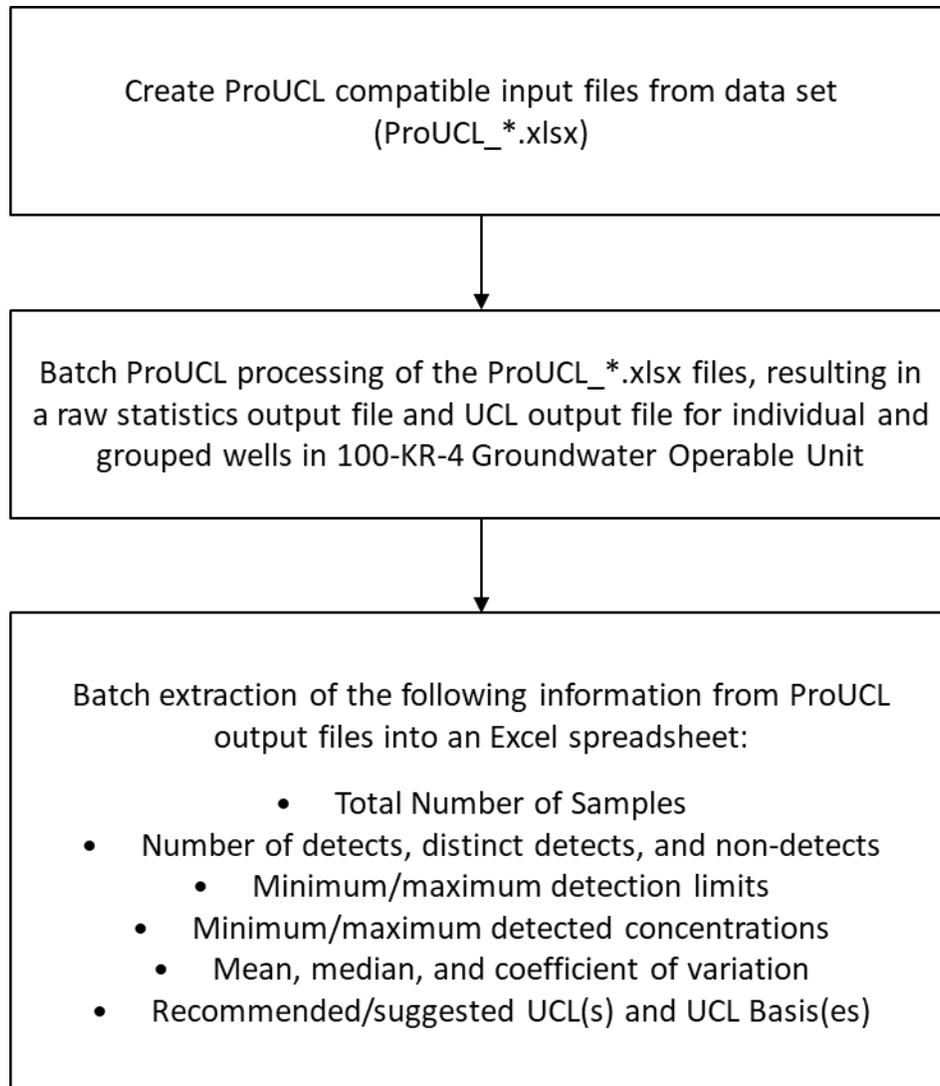


Figure 2. Batch Processing of Excel Files for ProUCL Calculations

### 3.5.2 Selection of EPCs

For each detected analyte, the EPC is selected using the following logic:

- If a valid UCL cannot be calculated, then the maximum detected concentration is selected as the EPC.
- If one or more UCLs are recommended and the highest recommended UCL is less than or equal to the maximum detected concentration, then the highest recommended UCL is selected as the EPC.
- If one or more UCLs are recommended and the highest recommended UCL is greater than the maximum detected concentration, then the following decision logic is applied:
  - If a 97.5% and/or 99% Chebyshev (Mean, Sd) UCL is not calculated, then the maximum detected concentration is selected as the EPC.

- If the 97.5% and/or 99% Chebyshev (Mean, Sd) UCL is calculated and is less than the maximum detected concentration, then the lower of the 97.5% and/or 99% Chebyshev (Mean, Sd) UCL is selected as the EPC.
- If the 97.5% and/or 99% Chebyshev (Mean, Sd) UCL is calculated and the lower of the 97.5% and/or 99% Chebyshev (Mean, Sd) UCL is greater than the maximum detected concentration, then the maximum detected concentration is selected as the EPC.

The 97.5% and/or 99% Chebyshev (Mean, Sd) UCL as the EPC is further evaluated in the uncertainty analysis of the risk characterization in DOE/RL-2010-97.

Selection of the EPC value using the above decision logic is presented in Figure 3.

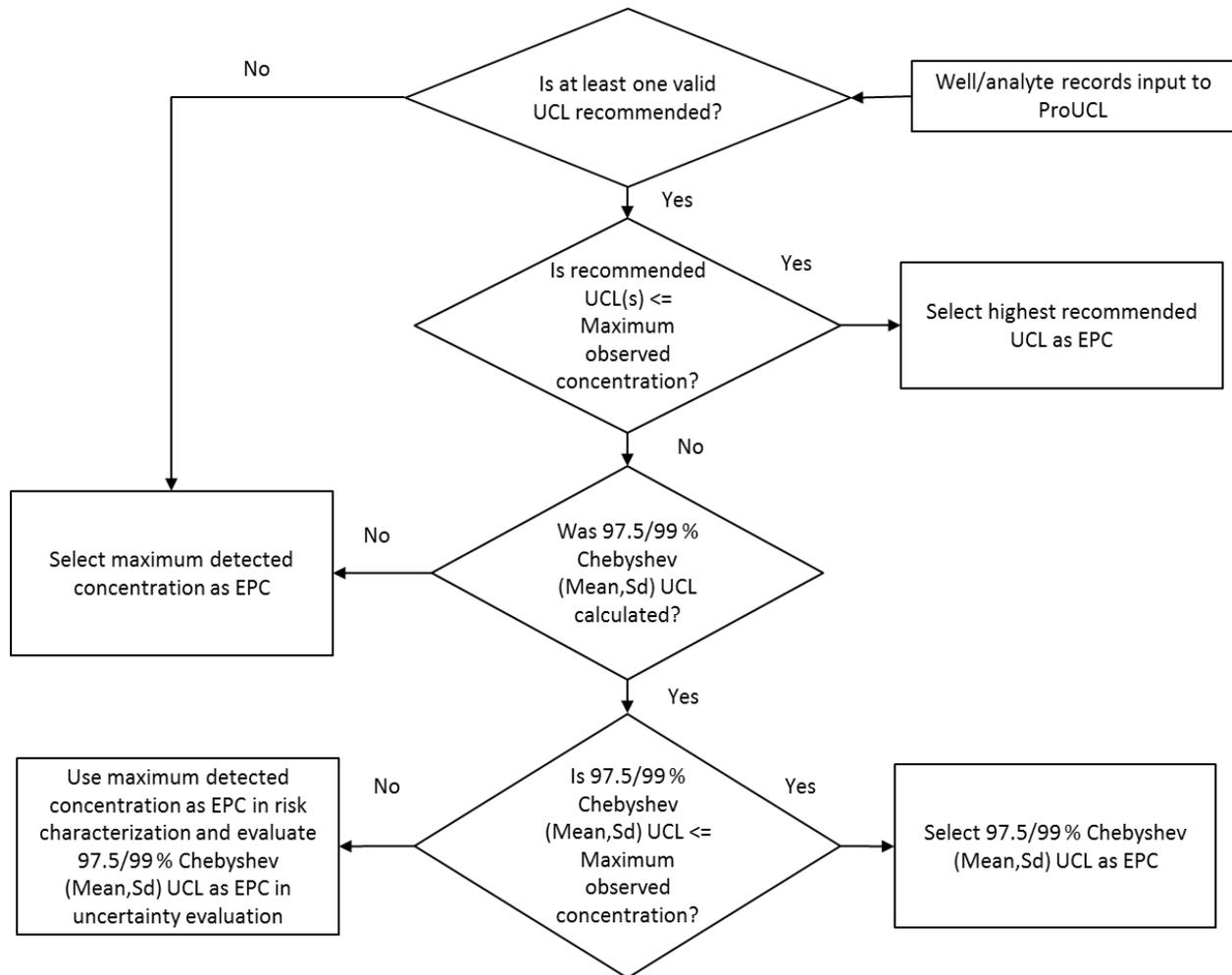


Figure 3. Decision Logic for EPC Selection

## 4 Assumptions and Inputs

This section describes the source of the inputs for the UCL calculations and provides supporting information for the assumptions made regarding calculation of UCLs and computation of EPCs.

## 4.1 Source of the Analytical Data Set

The groundwater data set used for the EPC calculations contains analytical results from samples collected from 82 groundwater wells located in the 100-KR-4 Groundwater OU (Table B-1). The data set contains analytical results from samples collected from these wells over the time period between October 22, 2009 and April 30, 2017.

Sampling and analysis activities for this data set were performed in accordance with the requirements documented in the approved OU work plan and sampling and analysis plans (SAPs). The work plan and SAPs associated with the 100-KR-4 Groundwater OU include the following:

- DOE/RL-2008-46-ADD2, *Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan Addendum 2, 100-KR-1 100-KR-2 And 100-KR-4 Operable Units*, Revision 0;
- DOE/RL-2009-41, *Sampling and Analysis Plan for the 100-K Decision Unit Remedial Investigation/Feasibility Study*, Rev. 0, approved October 23, 2009;
- DOE/RL-2013-29, *Sampling and Analysis Plan for the 100-KR-4 Groundwater Operable Unit Monitoring*, Rev. 0, approved November 3, 2016.

The 100-KR-4 Groundwater OU analytical data set resides in and was downloaded from the Hanford Environmental Information System (HEIS) database. After extraction from HEIS, the analytical data are processed to obtain a single set of results per sampling location and date of collection. Details regarding analytical data set requirements and the verification, refinement, and processing steps are described in Section 3.1 through Section 3.3.

Both filtered (dissolved) and unfiltered (total) analytical results are available for some analytes reported in the groundwater data set. It is noted that to support the range of groundwater evaluations included in the RI/FS report (DOE/RL-2010-97) in addition to risk assessment, data processing and reduction is also performed on an equivalent groundwater data set with the exception that the data set includes both filtered and unfiltered sample results; however, the processing of this additional data set is not addressed in this ECF because EPCs are not calculated for them.

## 4.2 Initial Data Set Requirements

The following provides additional information regarding the requirements established for the initial data set in support of risk assessment activities.

### 4.2.1 Unfiltered Sample Results

Unfiltered sample results represent total concentrations of analytes, while filtered sample results represent only dissolved concentrations. Use of filtered sample results might lead to underestimation of analyte concentrations (e.g., in water from an unfiltered tap). Groundwater risk assessments are generally performed using only unfiltered sample results. EPA/540/1-89/002 addresses this issue in providing the following guidance on estimating EPCs in groundwater:

“While filtration of ground-water samples provides useful information for understanding chemical transport within an aquifer, the use of filtered samples for estimating exposure is very controversial, because these data may underestimate chemical concentrations in water from an unfiltered tap. Therefore, data from unfiltered samples should be used to estimate exposure concentrations.”

The initial data set for UCL calculation contains only unfiltered (total) results.

#### 4.2.2 Field Methods

Results reported by field methods are not generally used for risk assessment purposes. However, it has been determined that results reported by field methods for Cr(VI) in support of the groundwater pump and treat systems in the 100-KR-4 and 100-HR-3 Groundwater OUs are equivalent to analytical results reported by Method 7196 (ECF-100HR3-13-0003, *Evaluation of Cr(VI) Analytical Results from Field and Fixed Laboratory Methods for the 100-HR3 Pump and Treat Systems*, Rev. 1 and ECF-100KR4-13-0002, *Evaluation of Cr(VI) Analytical Results from Field and Fixed Laboratory Methods for the 100-KR4 Pump and Treat Systems*, Rev. 1). Results reported by the field method can be used when Method 7196 results are not available.

#### 4.2.3 Results Reported by Gamma Spectroscopy Methods

Analytical results reported by gamma spectroscopy methods for the following radionuclides are used for confirmation purposes only and therefore are not included in the initial groundwater data set for risk assessment.

- Americium-241
- Iodine-129
- Iodine-131
- Proactinium-231
- Radium-226
- Radium-228
- Thorium-226
- Thorium-232
- Uranium-235
- Uranium-238

### 4.3 Nondetect Results

Data sets that contain nondetect results are referred to as censored data sets. Usually, a substitution is made using an estimate of the concentration in samples that were reported as nondetect. OSWER 9285.6-10 indicates that, because of the complicated formulas used to compute UCLs, there is no general rule about which substitution rule (half the detection limit or the full detection limit for nondetect results) will yield an appropriate UCL. OSWER 9285.6-10 further indicates that the appropriate method for calculating UCLs depends on the severity of the censoring, the size of the data set, and which assumptions are reasonable regarding the distribution of the data (e.g., normal, log-normal, etc.). OSWER 9285.6-10 also warns that if the proportion of nondetects is high (>75%), or the number of samples is small ( $n < 5$ ), no UCL calculation method will work well. In the UCL calculations presented in this ECF, the (full) method detection limit is taken as the concentration of an analyte (i.e., the result) for all nondetect results reported for chemicals (i.e., nonradionuclides).

Measurements of radiochemical samples require that analytical or instrumental backgrounds be subtracted to obtain net values. Thus, the net values are sometimes obtained that are lower than the minimum detection limit of the analytical technique. Consequently, individual measurements can result in values of positive and negative numbers. Although a negative value does not represent a physical reality, a valid long-term average of many measurements can only be obtained if the very small and negative numbers are included in the population calculations.

It is noted that for the purposes of calculating UCLs for risk assessment in this ECF, all nondetect results for radionuclides are replaced with the reported minimum detectable activity (MDA) to avoid the calculation of a negative UCL. This represents a more conservative approach and may result in a higher risk estimation.

#### 4.4 ProUCL Input Files

As described in Section 3.4.2, a ProUCL input file is generated from the processed and reduced data sets for each individual well and for all wells as a group. This is performed by extracting the analytical results in the final data sets into an Excel file. These files have been archived in Calculation Folder A under this ECF number in the Environmental Risk Management Archive (ERMA). A list of file names is provided in Table B-2.

#### 4.5 95 and 97.5/99 Percent Upper Confidence Limits

As mentioned previously, OSWER 9285.6-10 is the most recent EPA guidance for UCL calculation and ProUCL 5.1 serves as the companion software package for this guidance. ProUCL 5.1 contains rigorous parametric and nonparametric statistical methods (including bootstrap methods) that can be used on data sets without nondetects and on data sets with nondetect results. Both ProUCL and OSWER 9285.6-10 were used to calculate UCLs for the 100-KR-4 Groundwater OU.

There are two common methodologies used to calculate UCLs: 1) distributional methods and 2) distribution-free or nonparametric methods. OSWER 9285.6-10 recommends using a distributional method for computing UCLs if the data can be shown to reasonably fit a specific distribution. Distribution-free or nonparametric methods are applied if reasonable assumptions about the data distribution cannot be made.

For the purposes of this calculation, ProUCL 5.1 is used to determine the recommendations regarding reasonableness of fit of the data sets to various distributions.

##### 4.5.1 Distributional Methods

Normal and lognormal are the most common data distributions for calculating UCLs. The following are brief descriptions of recommended UCL calculation methods for these distribution types, as described in OSWER 9285.6-10.

**Normal Distribution.** If the data are normally distributed, then the one-sided  $(1-\alpha)$  UCL of the arithmetic mean is computed using the Student's t-statistic.

**Lognormal Distribution.** EPA had recommended the Land method to compute the UCL of the arithmetic mean for lognormally distributed data. This method uses the H-statistic tables for which were published by Land. Land's approach is known to be sensitive to deviations from lognormality, and to commonly yield estimated UCLs substantially larger than appropriate when distributions are not truly lognormal (i.e., if variance or skewness is large).

EPA also suggests the use of the Chebyshev inequality method to estimate UCLs which should be appropriate for a variety of distributions so long as the skewness is not very large. The one-sided version of the Chebyshev inequality method is appropriate in this context. It can be applied to the sample mean to obtain a distribution-free estimate of the UCL for the population mean when the population variance or standard deviation is known. In practice, however, these values are not known and must be estimated from data.

For lognormally distributed data sets, use of the minimum-variance unbiased estimators for the mean and variance is suggested to obtain a UCL of the arithmetic mean. This approach may yield an estimated UCL that is more useful than that obtained from the Land method (when the underlying distribution of concentrations is lognormal). As EPA points out, highly skewed lognormal data (i.e., a small number of samples with a large standard deviation) the Chebyshev 99% UCL may be a more appropriate confidence level because the Chebyshev 95% UCL may not provide adequate coverage of the mean. As skewness increases further, the Chebyshev method is not recommended.

#### 4.5.2 Nonparametric or Distribution-Free Methods

There are distribution-free approaches to computing UCLs that do not make specific assumptions about the shape of the underlying distribution of concentrations. The following are brief descriptions of recommended methods that are described in OSWER 9285.6-10.

**Central Limit Theorem (Adjusted).** If the sample size is sufficiently large, the Central Limit Theorem (CLT) implies that the mean will be normally distributed, no matter how complex the underlying distribution of concentrations might be. This is the case even if the underlying distribution is strongly skewed, has outliers, or is a mixture of different populations, so long as it is stationary (not changing over time), has finite variance, and the samples are collected independently and randomly. However, the theorem does not say how many samples are sufficient for normality to hold. When sample size is moderate or small, the mean generally will not be normally distributed, and this non-normality is intensified by the skewness of the underlying distribution. “Testing the Mean of Skewed Distributions” (Chen 1995) suggested an approach that accounts for positive skewness. EPA/600/R-97/006, *Technology Support Center Issue, The Lognormal Distribution in Environmental Applications*, and OSWER 9285.6-10 call this approach the “adjusted CLT” method. They suggest that it is an appropriate alternative to the distribution-specific Land’s method, even if the distribution is lognormal, when the standard deviation is less than one and sample size is larger than 100.

**Bootstrap Resampling.** Bootstrap procedures are robust, nonparametric statistical methods that can be used to construct approximate confidence limits for the population mean. In these procedures, repeated samples of size  $n$  are drawn with replacement from a given set of observations. The process is repeated a large number of times (e.g., thousands), and each time an estimate of the desired unknown parameter (e.g., the sample mean) is computed. There are different variations of the bootstrap procedure available.

**Jackknife Procedure.** Like the bootstrap procedure, the jackknife technique is a robust procedure based on resampling. In this procedure, repeated samples are drawn from a given set of observations by omitting each observation in turn, yielding  $n$  data sets of size  $n-1$ . An estimate of the desired unknown parameter (e.g., sample mean) is then computed for each sample. When the standard estimators are used for the mean and standard deviation, this procedure reduces to the UCL based on the Student's  $t$  statistic. However, when other estimators (such as minimum-variance unbiased estimators) are used, this jackknife procedure does not reduce to the UCL based on Student's  $t$  statistic.

**Chebyshev Inequality Method.** EPA suggests the use of the Chebyshev inequality to estimate UCLs, which should be appropriate for a variety of distributions, as long as the skewness is not very large. The one-sided version of the Chebyshev inequality is appropriate in this context. It can be applied to the sample mean to obtain a distribution-free estimate of the UCL for the population mean, when the population variance or standard deviation are known. In practice, however, these values are not known and must be estimated from the data.

## 4.6 Minimum Data Set Size Requirements

Some UCLs computed by ProUCL 5.1 require a minimum sample size. The following limitations of ProUCL apply to data sets with nondetects (i.e., censored data sets):

- A valid 95 percent UCL cannot be calculated because of a limited number of results (less than three).
- For data sets of at least three results, a UCL is not calculated when there is only one detected result in the data set.
- For data sets of at least four results, only Kaplan-Meier method-based UCLs are generated when there are only two detected results.
- For data sets of at least five results, most parametric and nonparametric (except for gamma distribution-based) UCLs are generated when there are at least three detected values.
- For data sets of at least five results, all parametric and nonparametric UCLs are generated when there are four or more detected values.

ProUCL generates warning messages for all small (sample size <8-10) data sets processed, informing the user about potential deficiencies in the data set.

## 4.7 Use of Maximum Detected Concentrations to Compute the EPC

As described in Section 3.5.2, the EPC defaults to the maximum detected concentration when any of the following conditions are met:

- When a 95% or 97.5% and/or 99% UCL cannot be calculated due to small sample size;
- When the highest recommended 95% UCL is greater than the maximum detected concentration and the 97.5% and/or 99% Chebyshev (Mean, Sd) UCL either was not calculated by ProUCL or the value was also greater than the maximum detected concentration.

ProUCL notes that the EPC term represents the average exposure contracted by a receptor over a long exposure duration and this term should be estimated by an average value (such as the 95% UCL) and not by the maximum observed concentration. Use of maximum observed concentrations results in risk estimates that correspond to maximum possible exposures; such estimates effectively make the assumption that a drinking water supply well will be drilled at the location of the maximum detected concentration all of the time. The following provides additional information regarding when a maximum detected concentration is selected as the EPC in this evaluation.

OSWER Publication 9285.7-081 states that for exposure units with limited amounts of data or extreme variability in measured or modeled data, the calculated UCL can be greater than the highest measured or modeled concentration. In these cases, if additional data cannot practicably be obtained, the highest measured or modeled value can be used as the concentration term. It further states that sampling data have shown that data sets with fewer than 10 samples per exposure area provide poor estimates of the mean concentration (i.e., there is a large difference between the sample mean and the UCL). As described above in Section 4.6, ProUCL has minimum size requirements to compute decision statistics. For data sets of at least three results, a UCL is not calculated when there is only one detected result in the data set. ProUCL notes that in cases where the number of available detected samples is small (< 4), the estimation of the EPC term is decided upon on a site-specific basis. ProUCL generates warning messages regarding the potential deficiencies associated with a small data set. For the purposes of this ECF, for small data sets where a UCL cannot be calculated, the EPC defaults to the maximum detected concentration.

Some of the methods described in Section 4.5 can produce very high estimates of the UCL. OSWER 9285.6-10 acknowledges that the Land method can produce extremely high values for the UCL, when data exhibit high variance and the sample size is small. OSWER Publication 9285.7-081 recognizes the problem of extremely high UCLs and recommends defaulting to the maximum detected concentration when the calculated UCL exceeds this value. ProUCL, however, advises that an alternative UCL (i.e., Chebyshev inequality) be selected as an EPC instead of the maximum detected concentration when the recommended UCL exceeds the maximum detected concentration.

In this evaluation, when the recommended UCL exceeds the maximum detected concentration, a 97.5/99% Chebyshev (Mean, Sd) UCL is selected as the EPC, if it is calculated and its value is less than the maximum detected concentration. If the 97.5/99% Chebyshev (Mean, Sd) is calculated but is greater than the maximum detected concentration, then the maximum detected concentration is selected as the EPC for risk characterization. However, the 97.5/99% Chebyshev (Mean, Sd) UCL will be evaluated in the risk assessment uncertainty evaluation. When the recommended UCL exceeds the maximum detected concentration and a Chebyshev (Mean, Sd) UCL is not available, the maximum detected concentration is selected as the EPC. ProUCL generates a warning message when the recommended UCL exceeds the maximum observed concentration.

## 5 Software Applications

The approved software applications: ProUCL v5.1 and POSTAL v3.0, are the primary software programs used for calculations reported in this document. The required information about each software item is provided in this section.

### 5.1 ProUCL Description

The following presents the description of ProUCL used for this report. See CHPRC-01270, *ProUCL Software Management Plan, Rev.3* for further details regarding the use of this software.

- Software Title: ProUCL
- Software Version: 5.1
- HISI Identification Number: 2831

Workstation type and description (from which software is run): ProUCL was executed on a Lenovo ThinkPad computer (property tag INTERA-00798) running Windows 10. Computer details are:

- Intel® Core™ i7-6600U CPU @ 2.60GHz
- 16 GB RAM
- Windows 10 Pro 64-bit Operating System

Additional workstation type and description: ProUCL was executed on a Lenovo ThinkPad computer (property tag INTERA-00707) running Windows 10. Computer details are:

- Intel® Core™ i7-4600U CPU @ 2.10GHz
- 8 GB RAM
- Windows®<sup>3</sup> 10 Pro 64-bit Operating System

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<sup>2</sup> Is a trademark of Intel Corporation, Santa Clara, California

<sup>3</sup> Is a trademark of Microsoft Corporation, Redmond, Washington.

### **5.1.1 Software Installation and Checkout**

The software installation and checkout forms for ProUCL v5.1 are provided in Appendix A.

### **5.1.2 Statement of Valid Software Installation**

The following presents the statement that ProUCL v5.1 is a valid software application.

- ProUCL was developed by EPA to provide statistical calculations in support of risk assessment activities.
- ProUCL as it has been used in this assessment has been implemented within the range of its limitations.

## **5.2 POSTAL Description**

The following presents the description of POSTAL used for this report. See CHPRC-03486, *POSTAL Software Management Plan, Rev. 0* for further details regarding the use of this software.

- Software Title: POSTAL
- Software Version: 3.0
- HISI Identification Number: 4198

Workstation type and description (from which software is run): POSTAL was executed on a Lenovo ThinkPad computer (property tag INTERA-00798) running Windows 10. Computer details are:

- Intel® Core™ i7-6600U CPU @ 2.60GHz
- 16 GB RAM
- Windows®10 Pro 64-bit Operating System

Additional workstation type and description: POSTAL was executed on a Lenovo ThinkPad computer (property tag INTERA-00707) running Windows 10. Computer details are:

- Intel® Core™ i7-4600U CPU @ 2.10GHz
- 8 GB RAM
- Windows® 10 Pro 64-bit Operating System

### **5.2.1 Software Installation and Checkout**

The software installation and checkout forms for POSTAL v3.0 are attached to this document.

### **5.2.2 Statement of Valid Software Installation**

The following presents the statement that POSTAL v3.0 is a valid software application.

- POSTAL was developed by INTERA, Inc., to provide automated execution of ProUCL and automated generation of UCL-, EPC- and risk tables in support of risk assessment activities.
- Acceptance tests were performed that demonstrated POSTAL correctly controlled the execution of ProUCL v5.1 and built UCL-95 and EPC tables from the ProUCL output and established EPC selection rules.
- POSTAL as it has been used in this activity has been implemented within the range of its limitations.

## 6 Calculation

EPCs are computed using the methodology presented in Section 3 and the inputs and assumptions described in Section 4. Results for each step in the process are summarized in the text and tables presented in Section 7. The input files used with and the output files generated by ProUCL and/or POSTAL are archived in the ERMA under this ECF number.

## 7 Results/Conclusions

This section documents the results of the data set verification and refinement, the data processing and the EPC computation steps performed on the data set for 100-KR-4 Groundwater OU risk assessments.

### 7.1 Data Set Verification and Refinement

Table 3 summarizes the data set refinements as a result of the verification of the initial data set.

**Table 3. Summary of Data Set Refinements Based on Verification of Initial Data Set**

HEIS Field Review	Refinement	Additional Information
SAMPLE_COMMENT	<p>Removed data associated with the following sample IDs: B28203, B28205, B28DF7, B28J07</p> <p>Removed data associated with the following sample IDs: B37DF5, B372F2</p>	<p>Samples were associated with well 199-K-149 but suspected to actually being sampled from valve for 199-K-151</p> <p>Sample comment stated results were associated with a depth interval</p>
SAMP_DATE_TIME STD_CON_LONG_NAME METHOD_NAME	<p>Removed all results associated with Method 9056 for anions; Removed results reported by Method 6010 for the following analytes:</p> <ul style="list-style-type: none"> <li>• Antimony</li> <li>• Arsenic</li> <li>• Beryllium</li> <li>• Cadmium</li> <li>• Chromium (samples collected after 11/3/2016 only)</li> <li>• Cobalt</li> <li>• Copper</li> <li>• Lead</li> <li>• Selenium</li> <li>• Thallium</li> </ul>	<p>Not SAP-approved methods for these analytes</p>
--	<p>Combine analytical results for wells 199-K-35, 199-K-195, 199-K-205</p>	<p>These three wells were all drilled near the 183.KW Head House and sequentially replace each other</p>

Notes:

SAP = Sampling and Analysis Plan

## 7.2 Identify Analytes for UCL Calculation

This section summarizes the process of selecting analytes to process through ProUCL for the UCL and raw statistics calculations. The initial data set for the 100-KR-4 Groundwater OU contained a total of 68,771 records and 297 analytes (Figure 1). Following the data processing and reduction steps described in Section 3.3, the data set contained 35,310 records and 65 analytes.

### 7.2.1 Identify Nondetected Analytes

A total of 202 analytes were not detected in the 100-KR-4 Groundwater OU; these analytes are listed in Table B-3. The table provides sampling dates, total number of samples, and minimum and maximum MDLs. Nondetected analytes included one anion, one metal, 34 pesticides, 14 radionuclides, 74 SVOCs, one total petroleum hydrocarbon (TPH)-kerosene, and 77 VOCs.

### 7.2.2 Apply Exclusion Criteria

A total of 30 analytes for the 100-KR-4 Groundwater OU met the exclusion criteria and were excluded from further consideration. The excluded analytes are listed in Table B-4. The table provides sampling dates, minimum and maximum detected concentrations, minimum and maximum method detection limits, and the basis for exclusion for each analyte.

#### 7.2.2.1 *Essential Nutrients*

Essential nutrients are those analytes considered essential for human nutrition. The essential nutrients (minerals) calcium, magnesium, potassium, and sodium were eliminated from further consideration for UCL calculation.

#### 7.2.2.2 *Background Radionuclides*

Background radionuclides are those radionuclides considered to be naturally occurring and not directly related to Hanford operations or processes. The background radionuclide, potassium-40, was eliminated from further consideration for UCL calculation.

#### 7.2.2.3 *Radionuclides with Half-lives of Less than 3 Years*

Radionuclides that have half-lives of less than 3 years and that are not significant daughter products were eliminated from further consideration for UCL calculation. Based on this criterion, cesium-134 was excluded from further consideration for UCL calculation.

#### 7.2.2.4 *Analytes Without Known Toxicity Information*

Analytes without known toxicity information were eliminated from further consideration for UCL calculation. A total of 24 analytes were eliminated based on this criterion, including the following:

- 3 anions, 6 general chemistry parameters, 5 metals, 2 radionuclides, 3 TPH fractions, and 5 volatile organic compounds.

## 7.3 ProUCL Output Files

The following section describes the ProUCL processing and extracting steps.

### 7.3.1 ProUCL Processing

Excel<sup>4</sup> input files for the individual wells and for all wells as a group were imported into ProUCL and corresponding raw statistics and UCL output files were generated as described in Section 3.5.1. The resulting raw statistics and UCL output files were then converted to Excel files and archived in the ERMA under this ECF number in Calculation Folder B. The corresponding output file names are listed in Tables B-5 and B-6.

### 7.3.2 ProUCL Extraction

The selected statistical values listed in Section 3.5.1 were extracted from the ProUCL output files into an Excel spreadsheet. The extracted information has been archived in the ERMA under this ECF number in Calculation Folder C.

## 7.4 Selection of Exposure Point Concentrations

Exposure point concentrations for the 100-KR-4 Groundwater OU were selected using the logic described in Section 3.5.2. The well-specific EPCs and grouped well EPCs are summarized in Tables B-7 and B-8, respectively. These tables provide the EPCs identified for use in risk characterization. As discussed in Section 4.2.1, EPCs were computed only for unfiltered sample data.

The 100-KR-4 Groundwater OU well-specific data sets yielded 152 recommended UCLs that were greater than the maximum detected concentration. For 78 UCLs, the EPC defaulted to the maximum detected concentration because a Chebyshev (Mean, Sd) UCL was not calculated. For the remaining 74 analytes, the EPC defaulted to the maximum detected concentration because the Chebyshev (Mean, Sd) UCLs exceeded the maximum detected concentration. These 152 UCLs are listed in Table B-9. The EPC decision logic for the well-specific data sets is shown in Figure 4.

The 100-KR-4 Groundwater OU grouped well data set yielded two recommended UCLs greater than the maximum detected concentration; the EPC defaulted to the maximum detected concentration because the Chebyshev (Mean, Sd) UCLs exceeded the maximum detected concentration. These two UCLs are listed in Table B-9. The EPC decision logic for the grouped well data set is shown in Figure 5.

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<sup>4</sup> A trademark of Microsoft Corporation, Redmond, Washington

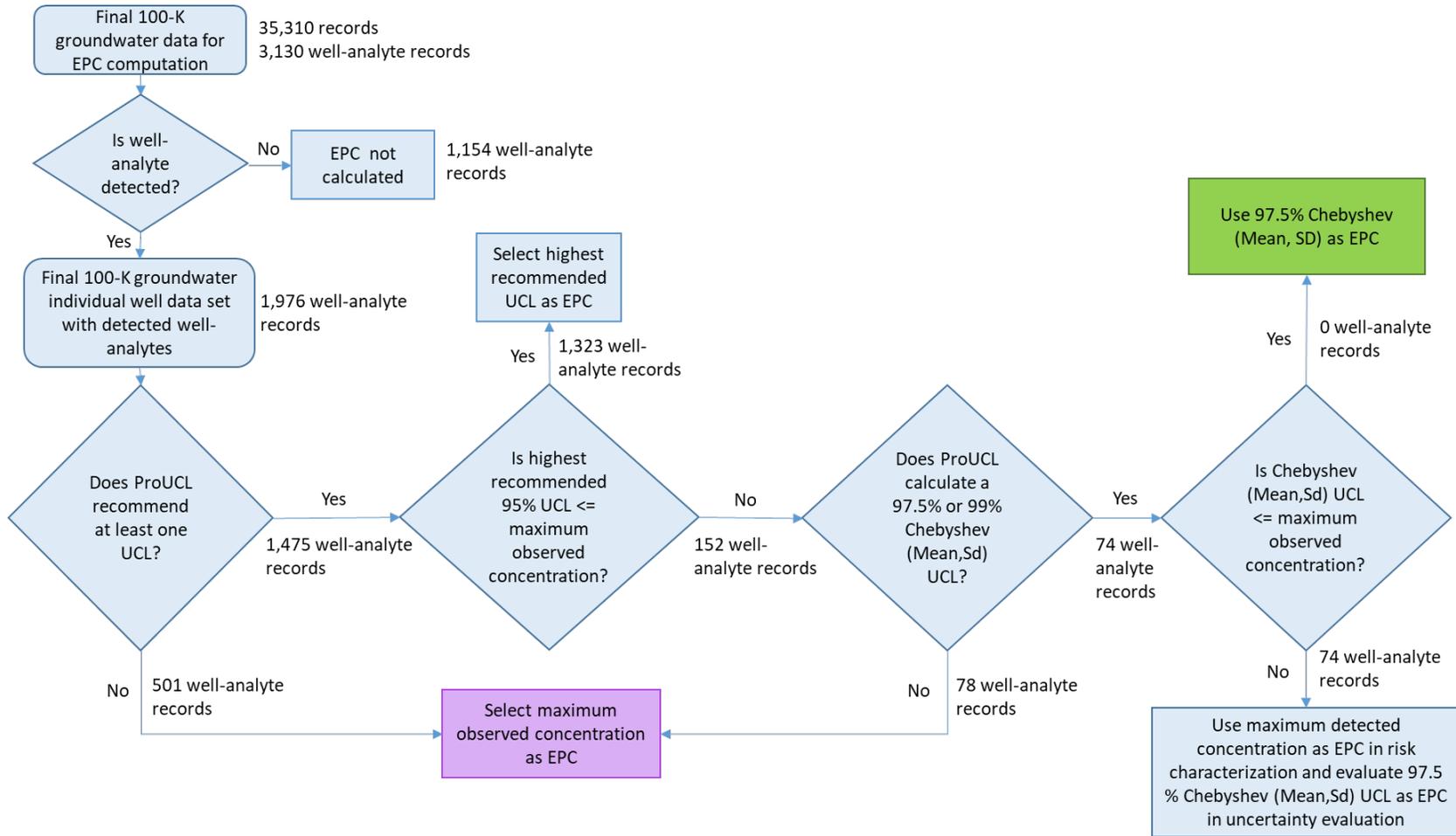


Figure 4. Decision Logic for EPC Selection in Individual Wells at 100-KR-4 Groundwater Operable Unit

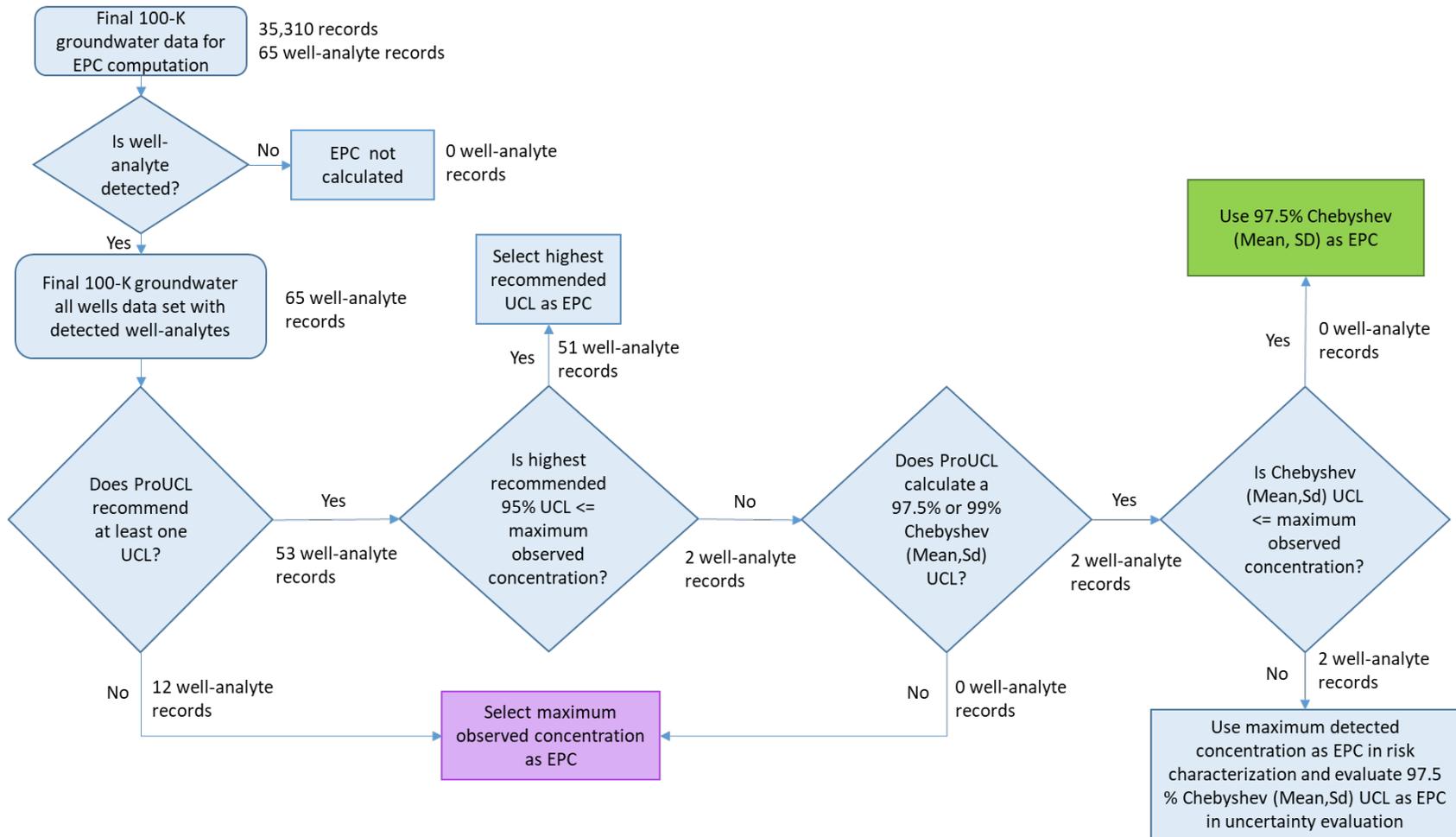


Figure 5. Decision Logic for EPC Selection in Grouped Wells at 100-KR-4 Groundwater Operable Unit

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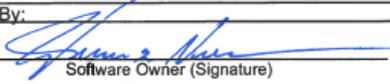
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## Appendix A

### Software Installation and Checkout Form for ProUCL and POSTAL

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<b>SOFTWARE INSTALLATION AND CHECKOUT FORM</b>	
<b>Software Owner Instructions:</b> Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 19. If not, resolve differences and repeat above steps.	
<b>Software Subject Matter Expert Instructions:</b> Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.	
<b>GENERAL INFORMATION:</b>	
1. Software Name: <u>ProUCL Version 5.1</u>	Software Version No.: <u>5.1</u>
<b>EXECUTABLE INFORMATION:</b>	
2. Executable Name (include path): Path: c:\\$ Programs\ProUCL 5.1\ProUCL.exe	
3. Executable Size (bytes): 1,129 KB	
<b>COMPILATION INFORMATION:</b>	
4. Hardware System (i.e., property number or ID): Acquired software; compiled by vendor (EPA)	
5. Operating System (include version number): Acquired software; compiled by vendor (EPA)	
<b>INSTALLATION AND CHECKOUT INFORMATION:</b>	
6. Hardware System (i.e., property number or ID): Lenovo ThinkPad/INTERA-00798	
7. Operating System (include version number): Windows 10 Pro (64-bit)	
8. Open Problem Report? <input checked="" type="radio"/> No <input type="radio"/> Yes PR/CR No.	
<b>TEST CASE INFORMATION:</b>	
9. Directory/Path: c:\\$ Programs\ProUCL 5.1\	
10. Procedure(s): CHPRC-01270 Rev. 3, Section 13.3.3.9 (Installation Test Problem)	
11. Libraries: N/A	
12. Input Files: ProUCL InstallationTestCase.xlsx	
13. Output Files: to screen	
14. Test Cases: ProUCL-ITC-1	
15. Test Case Results: Passed	
16. Test Performed By: RE Dockter	
17. Test Results: <input checked="" type="radio"/> Satisfactory, Accepted for Use <input type="radio"/> Unsatisfactory	
18. Disposition (include HISI update): Installation added to HISI registry. -WE Nichols	

SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)			
1. Software Name: <u>ProUCL Version 5.1</u>		Software Version No.: <u>5.1</u>	
Prepared By:			
19.	 Software Owner (Signature)	<u>WE Nichols</u> Print	<u>11 July 2015</u> Date <u>2016</u>
20. Test Personnel:	 Sign	<u>RE Dockter</u> Print	<u>6-14-2016</u> Date
	_____ Sign	_____ Print	_____ Date
	_____ Sign	_____ Print	_____ Date
Approved By:			
21.	<u>N/A - PER SAP</u> Software SME (Signature)	_____ Print	_____ Date

<b>CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM</b>	
<p><b>Software Owner Instructions:</b> Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 19. If not, resolve differences and repeat above steps.</p> <p><b>Software Subject Matter Expert Instructions:</b> Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.</p>	
<p><b>GENERAL INFORMATION:</b></p> <p>1. Software Name: <u>POSTAL</u> <span style="float: right;">Software Version No.: <u>3.0</u></span></p>	
<p><b>EXECUTABLE INFORMATION:</b></p> <p>2. Executable Name (include path): <u>E:\WF23245Laptop\GW-100N-Work\2017WorkDB\POSTAL.exe</u></p> <p>3. Executable Size (bytes): <u>632,832</u></p>	
<p><b>COMPILATION INFORMATION:</b></p> <p>4. Hardware System (i.e., property number or ID): <u>Lenovo ThinkPad (property tag INTERA-00798)</u></p> <p>5. Operating System (include version number): <u>Windows 10 Pro 64-bit</u></p>	
<p><b>INSTALLATION AND CHECKOUT INFORMATION:</b></p> <p>6. Hardware System (i.e., property number or ID): <u>Lenovo ThinkPad (property tag INTERA-00798)</u></p> <p>7. Operating System (include version number): <u>Windows 10 Pro 64-bit</u></p> <p>8. Open Problem Report? <input checked="" type="radio"/> No <input type="radio"/> Yes <span style="margin-left: 20px;">PR/CR No.</span></p>	
<p><b>TEST CASE INFORMATION:</b></p> <p>9. Directory/Path: <u>E:\WF23245Laptop\GW-100N-Work\2017WorkDB\</u></p> <p>10. Procedure(s): <u>CHPRC-03486 Rev. 0, POSTAL Software Management Plan (Sections 16 and 13.3.3.9)</u></p> <p>11. Libraries: <u>N/A</u></p> <p>12. Input Files: <u>N/A</u></p> <p>13. Output Files: <u>N/A (to screen)</u></p> <p>14. Test Cases: <u>POSTAL-ITC-1</u></p> <p>15. Test Case Results: <u>Passed. Match expected results as presented in CHPRC-03486, POSTAL Software Management Plan Section 13.3.3.9 and Attachment 9: Test Log for POSTAL-ITC-1 template.</u></p> <p>16. Test Performed By: <u>Randy Dockter</u></p> <p>17. Test Results: <input checked="" type="radio"/> Satisfactory, Accepted for Use <input type="radio"/> Unsatisfactory</p>	

<b>CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)</b>			
1. Software Name: <u>POSTAL</u>	Software Version No.: <u>3.0</u>		
18. Disposition (include HISI update): Installation added to HISI registry. -WE Nichols			
Prepared By: <u>WILLIAM NICHOLS</u> <small>Digitally signed by WILLIAM NICHOLS (Affiliate)</small>			
<small>Date: 2018.03.06 15:36:10 -08'00'</small>			
19. _____ <small>(Affiliate)</small>	<u>William E Nichols</u>	_____	_____
<small>Software Owner (Signature)</small>	<small>Print</small>	<small>Date</small>	
20. Test Personnel:			
<u>Randy Dockter</u> <small>Sign</small>	<u>RE Dockter</u> <small>Print</small>	<u>3/5/2018</u> <small>Date</small>	
_____ <small>Sign</small>	_____ <small>Print</small>	_____ <small>Date</small>	
_____ <small>Sign</small>	_____ <small>Print</small>	_____ <small>Date</small>	
Approved By:			
21. _____	<u>N/A (CHRPC-3486)</u>	_____	_____
<small>Software SME (Signature)</small>	<small>Print</small>	<small>Date</small>	

<b>CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM</b>	
<p><b>Software Owner Instructions:</b> Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 19. If not, resolve differences and repeat above steps.</p> <p><b>Software Subject Matter Expert Instructions:</b> Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.</p>	
<p><b>GENERAL INFORMATION:</b></p> <p>1. Software Name: <u>ProUCL Version 5.1</u> <span style="float: right;">Software Version No.: <u>5.1</u></span></p>	
<p><b>EXECUTABLE INFORMATION:</b></p> <p>2. Executable Name (include path): <u>C:\Users\npowers\Desktop\POSTAL3.0\ProUCL 5.1\ProUCL.exe</u></p> <p>3. Executable Size (bytes): <u>1,129kb</u></p>	
<p><b>COMPILATION INFORMATION:</b></p> <p>4. Hardware System (i.e., property number or ID): <u>Acquired software; compiled by vendor (EPA)</u></p> <p>5. Operating System (include version number): <u>Acquired software; compiled by vendor (EPA)</u></p>	
<p><b>INSTALLATION AND CHECKOUT INFORMATION:</b></p> <p>6. Hardware System (i.e., property number or ID): <u>Lenovo ThinkPad (property tag INTERA-00707)</u></p> <p>7. Operating System (include version number): <u>Windows 10 Pro 64-bit</u></p> <p>8. Open Problem Report? <input checked="" type="radio"/> No <input type="radio"/> Yes <span style="margin-left: 20px;">PR/CR No.</span></p>	
<p><b>TEST CASE INFORMATION:</b></p> <p>9. Directory/Path: <u>C:\Users\npowers\Desktop\POSTAL3.0\ProUCL 5.1\</u></p> <p>10. Procedure(s): <u>CHPRC-01270 Rev. 3, section 13.3.3.9 (Installation Test Problem)</u></p> <p>11. Libraries: <u>N/A</u></p> <p>12. Input Files: <u>ProUCL InstallationTestCast.xlsx</u></p> <p>13. Output Files: <u>N/A (to screen)</u></p> <p>14. Test Cases: <u>ProUCL-ITC-1</u></p> <p>15. Test Case Results: <u>Passed.</u></p> <p>16. Test Performed By: <u>Neil Powers</u></p> <p>17. Test Results: <input checked="" type="radio"/> Satisfactory, Accepted for Use <input type="radio"/> Unsatisfactory</p> <p>18. Disposition (include HISI update): <u>Installation added to HISI registry. -WE Nichols</u></p>	

CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)			
1. Software Name: <u>ProOCL Version 5.1</u>		Software Version No.: <u>5.1</u>	
Prepared By:			
19.  Software Owner (Signature)	<u>William E Nichols</u> Print	<u>6 MAR 2017</u> Date	
20. Test Personnel:			
 Sign	<u>N. Powers</u> Print	<u>5 May 2016</u> Date	
_____ Sign	_____ Print	_____ Date	
_____ Sign	_____ Print	_____ Date	
Approved By:			
21. _____ Software SME (Signature)	<u>N/A (CHRPC-3486)</u> Print		_____ Date

<b>CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM</b>	
<p><b>Software Owner Instructions:</b> Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 16. If not, resolve differences and repeat above steps.</p> <p><b>Software Subject Matter Expert Instructions:</b> Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.</p>	
<b>GENERAL INFORMATION:</b>	
1. Software Name: <u>POSTAL</u>	Software Version No. <u>3.0</u>
<b>EXECUTABLE INFORMATION:</b>	
2. Executable Name (include path): <u>C:\Users\npowers\Desktop\POSTAL3.0\POSTAL.exe</u>	
3. Executable Size (bytes): <u>632,832</u>	
<b>COMPILATION INFORMATION:</b>	
4. Hardware System (i.e., property number or ID): <u>Lenovo ThinkPad (property tag INTERA-00707)</u>	
5. Operating System (include version number): <u>Windows 10 Pro 64-bit</u>	
<b>INSTALLATION AND CHECKOUT INFORMATION:</b>	
6. Hardware System (i.e., property number or ID): <u>Lenovo ThinkPad (property tag INTERA-00707)</u>	
7. Operating System (include version number): <u>Windows 10 Pro 64-bit</u>	
8. Open Problem Report? <input checked="" type="radio"/> No <input type="radio"/> Yes PR/CR No. _____	
<b>TEST CASE INFORMATION:</b>	
9. Directory/Path: <u>C:\Users\npowers\Desktop\POSTAL3.0\</u>	
10. Procedure(s): <u>CHPRC-03486 Rev. 0, POSTAL Software Management Plan (Sections 16 and 13.3.3.9)</u>	
11. Libraries: <u>N/A</u>	
12. Input Files: <u>N/A</u>	
13. Output Files: <u>N/A (to screen)</u>	
14. Test Cases: <u>POSTAL-ITC-1</u>	
15. Test Case Results: <u>Passed. Match expected results as presented in CHPRC-03486, POSTAL Software Management Plan Section 13.3.3.9 and Attachment 9: Test Log for POSTAL-ITC-1 template.</u>	
16. Test Performed By: <u>Nell Powers</u>	
17. Test Results: <input checked="" type="radio"/> Satisfactory, Accepted for Use <input type="radio"/> Unsatisfactory	

<b>CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)</b>			
1. Software Name: <u>POSTAL</u>	Software Version No: <u>3.0</u>		
18. Disposition (include HISI update): Installation added to HISI registry. -WE Nichols			
Prepared By: _____			
19.  Software Owner (Signature)	<u>William E Nichols</u> Print	<u>7 May 2016</u> Date	
20. Test Personnel:			
 Sign	<u>N. Powers</u> Print	<u>7 May 2016</u> Date	
_____ Sign	_____ Print	_____ Date	
_____ Sign	_____ Print	_____ Date	
Approved By:			
21. _____ Software SME (Signature)	<u>N/A (CHPRC-3486)</u> Print	_____ Date	

## Appendix B

### Tables

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Table 1. 100-KR-4 Groundwater OU Monitoring Wells<sup>a</sup> by Screening Interval

<b>Monitoring Wells Screened Across Top of the Unconfined Aquifer</b>		
199-K-106A	199-K-140	199-K-29
199-K-107A	199-K-18	199-K-30
199-K-108A	199-K-19	199-K-32A
199-K-110A	199-K-200	199-K-34
199-K-111A	199-K-201	199-K-36
199-K-132	199-K-22	699-73-61
199-K-139	199-K-23	--
<b>Monitoring Wells Screened Across Upper Unconfined Aquifer</b>		
199-K-11	199-K-186	199-K-21
199-K-117A	199-K-187	199-K-221
199-K-125A	199-K-188	199-K-222
199-K-138	199-K-191	199-K-31
199-K-142	199-K-194	199-K-37
199-K-173	199-K-20	699-72-73
199-K-183	199-K-204	--
<b>Monitoring Wells Screened Across Lower Unconfined Aquifer</b>		
199-K-168	199-K-184	199-K-190
<b>Monitoring Well Screened Across Upper and Lower Unconfined Aquifer</b>		
199-K-193	--	--
<b>Monitoring Wells Screened Across Entire Aquifer</b>		
199-K-151	199-K-189	199-K-207
199-K-157	199-K-202	199-K-209
199-K-185	199-K-203	199-K-223
<b>Monitoring Wells Screened Across Ringold Upper Mud</b>		
199-K-192	199-K-32B	--
<b>Combined Wells 199-K-35, 199-K-195, 199-K-205 Screened Across Upper Unconfined Aquifer<sup>b</sup></b>		
199-K-35	199-K-195	199-K-205
<b>Extraction Well Screened Across Top of the Unconfined Aquifer</b>		
199-K-137	--	--
<b>Extraction Wells Screened Across Upper Unconfined Aquifer</b>		
199-K-113A	199-K-144	199-K-148
199-K-114A	199-K-146	199-K-161
199-K-141	199-K-147	199-K-178
<b>Extraction Wells Screened Across Entire Aquifer</b>		
199-K-116A	199-K-154	199-K-182
199-K-120A	199-K-163	199-K-208
199-K-145	199-K-165	199-K-210
199-K-152	199-K-166	199-K-224
199-K-153	199-K-171	--

a. 199-K-109A was originally included in the list of wells to evaluate in order to define Sr90 contamination near the KE Fuel Storage Basin; however no samples were collected from this well during the time period evaluated, therefore it is not included in the well dataset.

b. Wells 199-K-35, 199-K-195, and 199-K-205 are three wells all drilled near the 183.1KW Head House area that sequentially replaced the other during the time period evaluated. The datasets from these wells were combined to calculate a single set of EPCs for the three wells.

Table B-2. ProUCL Input File Names for 100-KR-4 Groundwater Operable Unit

Well-Specific			
ProUCL_199-K-106A!1of2.xlsx	ProUCL_199-K-147.xlsx	ProUCL_199-K-183.xlsx	ProUCL_199-K-210.xlsx
ProUCL_199-K-106A!2of2.xlsx	ProUCL_199-K-148.xlsx	ProUCL_199-K-184.xlsx	ProUCL_199-K-22.xlsx
ProUCL_199-K-107A.xlsx	ProUCL_199-K-151!1of3.xlsx	ProUCL_199-K-185.xlsx	ProUCL_199-K-221.xlsx
ProUCL_199-K-108A.xlsx	ProUCL_199-K-151!2of3.xlsx	ProUCL_199-K-186.xlsx	ProUCL_199-K-222.xlsx
ProUCL_199-K-11.xlsx	ProUCL_199-K-151!3of3.xlsx	ProUCL_199-K-187.xlsx	ProUCL_199-K-223.xlsx
ProUCL_199-K-110A.xlsx	ProUCL_199-K-152!1of3.xlsx	ProUCL_199-K-188.xlsx	ProUCL_199-K-224.xlsx
ProUCL_199-K-111A.xlsx	ProUCL_199-K-152!2of3.xlsx	ProUCL_199-K-189.xlsx	ProUCL_199-K-23.xlsx
ProUCL_199-K-113A.xlsx	ProUCL_199-K-152!3of3.xlsx	ProUCL_199-K-19.xlsx	ProUCL_199-K-29.xlsx
ProUCL_199-K-114A.xlsx	ProUCL_199-K-153.xlsx	ProUCL_199-K-190.xlsx	ProUCL_199-K-30.xlsx
ProUCL_199-K-116A.xlsx	ProUCL_199-K-154.xlsx	ProUCL_199-K-191.xlsx	ProUCL_199-K-31.xlsx
ProUCL_199-K-117A.xlsx	ProUCL_199-K-157.xlsx	ProUCL_199-K-192.xlsx	ProUCL_199-K-32A.xlsx
ProUCL_199-K-120A.xlsx	ProUCL_199-K-161.xlsx	ProUCL_199-K-193.xlsx	ProUCL_199-K-32B.xlsx
ProUCL_199-K-125A.xlsx	ProUCL_199-K-163.xlsx	ProUCL_199-K-194.xlsx	ProUCL_199-K-34.xlsx
ProUCL_199-K-132.xlsx	ProUCL_199-K-165.xlsx	ProUCL_199-K-20.xlsx	ProUCL_199-K-35, K-195, K-205.xlsx
ProUCL_199-K-137.xlsx	ProUCL_199-K-166.xlsx	ProUCL_199-K-200.xlsx	ProUCL_199-K-36.xlsx
ProUCL_199-K-138.xlsx	ProUCL_199-K-168.xlsx	ProUCL_199-K-201.xlsx	ProUCL_199-K-37!1of3.xlsx
ProUCL_199-K-139.xlsx	ProUCL_199-K-171.xlsx	ProUCL_199-K-202.xlsx	ProUCL_199-K-37!2of3.xlsx
ProUCL_199-K-140.xlsx	ProUCL_199-K-173.xlsx	ProUCL_199-K-203.xlsx	ProUCL_199-K-37!3of3.xlsx
ProUCL_199-K-141.xlsx	ProUCL_199-K-178.xlsx	ProUCL_199-K-204.xlsx	ProUCL_699-72-73.xlsx
ProUCL_199-K-142.xlsx	ProUCL_199-K-18.xlsx	ProUCL_199-K-207.xlsx	ProUCL_699-73-61!1of3.xlsx
ProUCL_199-K-144.xlsx	ProUCL_199-K-182!1of3.xlsx	ProUCL_199-K-208.xlsx	ProUCL_699-73-61!2of3.xlsx
ProUCL_199-K-145.xlsx	ProUCL_199-K-182!2of3.xlsx	ProUCL_199-K-209.xlsx	ProUCL_699-73-61!3of3.xlsx
ProUCL_199-K-146.xlsx	ProUCL_199-K-182!3of3.xlsx	ProUCL_199-K-21.xlsx	--
Grouped Wells			
ProUCL_ALL!1of3.xlsx	ProUCL_ALL!2of3.xlsx	ProUCL_ALL!3of3.xlsx	--

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
1,1,1,2-Tetrachloroethane	630-20-6	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.090	0.090
1,1,1-Trichloroethane	71-55-6	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.067	1.0
1,1,2,2-Tetrachloroethane	79-34-5	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.098	1.0
1,1,2-Trichloroethane	79-00-5	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.063	1.0
1,1-Dichloroethane	75-34-3	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.068	1.0
1,1-Dichloroethene	75-35-4	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.051	1.0
1,2,3-Trichloropropane	96-18-4	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.15	0.15
1,2,4,5-Tetrachlorobenzene	95-94-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.41	0.41
1,2-Dibromoethane	106-93-4	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.13	0.13
1,2-Dichloroethane	107-06-2	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.10	1.0
1,2-Dichloroethene (Total)	540-59-0	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.13	1.0
1,2-Dichloropropane	78-87-5	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.097	1.0
1,4-Dichlorobenzene	106-46-7	VOC	10/22/2009	2/1/2017	381	0	0	ug/L	0.10	1.0
1,4-Dioxane	123-91-1	VOC	3/5/2010	2/10/2012	61	0	0	ug/L	7.6	7.6
1,4-Naphthoquinone	130-15-4	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
1-Butanol	71-36-3	VOC	10/22/2009	2/1/2017	423	0	0	ug/L	12	100
1-Naphthylamine	134-32-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
1-Propanol	71-23-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2,000	2,000
2,3,4,6-Tetrachlorophenol	58-90-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,4,5-Trichlorophenol	95-95-4	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,4,6-Trichlorophenol	88-06-2	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,4-Dichlorophenol	120-83-2	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,4-Dimethylphenol	105-67-9	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,4-Dinitrophenol	51-28-5	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
2,4-Dinitrotoluene	121-14-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,6-Dichlorophenol	87-65-0	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2,6-Dinitrotoluene	606-20-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.2	2.2
2-Acetylaminofluorene	53-96-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Chloronaphthalene	91-58-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Chlorophenol	95-57-8	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Hexanone	591-78-6	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.22	1.0
2-Methylnaphthalene	91-57-6	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Methylphenol (cresol, o-)	95-48-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Naphthylamine	91-59-8	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Nitroaniline	88-74-4	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Nitrophenol	88-75-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
2-Picoline	109-06-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
3,3'-Dichlorobenzidine	91-94-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
3,3'-Dimethylbenzidine	119-93-7	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.6	2.6
3-Methylcholanthrene	56-49-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
3-Nitroaniline	99-09-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.020
4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
4,6-Dinitro-2-methylphenol	534-52-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Aminobiphenyl	92-67-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Bromophenylphenyl ether	101-55-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Chloro-3-methylphenol	59-50-7	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Chloroaniline	106-47-8	VOC	9/19/2010	1/9/2011	9	0	0	ug/L	1.0	1.0
4-Chlorophenylphenyl ether	7005-72-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Methyl-2-pentanone	108-10-1	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.12	3.0
4-Methylphenol (cresol, p-)	106-44-5	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	10	10
4-Nitroaniline	100-01-6	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
4-Nitrophenol	100-02-7	VOC	9/19/2010	1/9/2011	9	0	0	ug/L	2.0	2.0
4-Nitroquinoline-1-oxide	56-57-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	5.0	5.0
5-Nitro-o-toluidine	99-55-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
7,12-Dimethylbenz(a)anthracene	57-97-6	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Acenaphthene	83-32-9	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Acenaphthylene	208-96-8	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Acetonitrile	75-05-8	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	2.0	2.0
Acetophenone	98-86-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Acrolein	107-02-8	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	2.8	2.8
Allyl chloride	107-05-1	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.091	0.11
alpha,alpha-Dimethylphenethylamine	122-09-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	22	22
Alpha-BHC	319-84-6	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Americium-241	14596-10-2	RAD	10/13/2016	12/9/2016	7	0	0	pCi/L	0.046	0.75
Aniline	62-53-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Anthracene	120-12-7	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.020	1.0
Antimony-125	14234-35-6	RAD	10/22/2009	3/23/2017	635	0	0	pCi/L	3.3	78
Aramite	140-57-8	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	20	20
Azobenzene	103-33-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Benzene	71-43-2	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.045	1.0
Benzo(a)anthracene	56-55-3	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Benzo(a)pyrene	50-32-8	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Benzo(b)fluoranthene	205-99-2	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Benzo(ghi)perylene	191-24-2	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Benzo(k)fluoranthene	207-08-9	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
Benzyl alcohol	100-51-6	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Beryllium-7	13966-02-4	RAD	10/22/2009	4/14/2014	337	0	0	pCi/L	18	220
beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.013
Bis(2-chloro-1-methylethyl)ether	108-60-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Bis(2-Chloroethoxy)methane	111-91-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Bis(2-chloroethyl) ether	111-44-4	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Bismuth	7440-69-9	METAL	3/5/2010	1/10/2011	45	0	0	ug/L	23	37
Bromoform	75-25-2	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.094	1.0
Butylbenzylphthalate	85-68-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Carbazole	86-74-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Chlordane	57-74-9	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.040	0.23
Chlorine-36	13981-43-6	RAD	11/15/2016	12/9/2016	3	0	0	pCi/L	71	76
Chlorobenzilate	510-15-6	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Chloroethane	75-00-3	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.085	1.0
Chloroprene	126-99-8	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.086	0.097
Chrysene	218-01-9	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
cis-1,2-Dichloroethylene	156-59-2	VOC	10/22/2009	2/1/2017	423	0	0	ug/L	0.083	1.0
cis-1,3-Dichloropropene	10061-01-5	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.073	1.0
Cyclohexanone	108-94-1	VOC	1/7/2011	1/10/2011	5	0	0	ug/L	5.8	5.8
Delta-BHC	319-86-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Diallate	2303-16-4	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
Dibenz(a,h)anthracene	53-70-3	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Dibenzofuran	132-64-9	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Dibromochloromethane	124-48-1	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.057	1.0
Dibromomethane	74-95-3	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.21	0.21
Dichlorodifluoromethane	75-71-8	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.070	0.084
Dieldrin	60-57-1	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Diethyl ether	60-29-7	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	0.26	2,000
Dimethoate	60-51-5	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Dimethyl phthalate	131-11-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Di-n-butylphthalate	84-74-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Di-n-octylphthalate	117-84-0	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
Disulfoton	298-04-4	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Endosulfan I	959-98-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.020
Endosulfan II	33213-65-9	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Endosulfan sulfate	1031-07-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Endrin	72-20-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Endrin aldehyde	7421-93-4	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
Ethanol	64-17-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2,000	2,000
Ethyl acetate	141-78-6	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	0.18	2,000
Ethyl cyanide	107-12-0	SVOC	10/22/2009	2/1/2017	423	0	0	ug/L	1.2	3.7
Ethyl methacrylate	97-63-2	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.11	0.11
Ethyl methanesulfonate	62-50-0	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Ethylene glycol	107-21-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2,000	2,000
Europium-152	14683-23-9	RAD	10/22/2009	3/23/2017	636	0	0	pCi/L	3.5	80
Europium-154	15585-10-1	RAD	10/22/2009	3/23/2017	636	0	0	pCi/L	4.4	89
Europium-155	14391-16-3	RAD	10/22/2009	3/23/2017	636	0	0	pCi/L	2.0	75
Famphur	52-85-7	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.7	1.7
Fluoranthene	206-44-0	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Fluorene	86-73-7	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Gamma-BHC (Lindane)	58-89-9	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.0030	0.010
Heptachlor	76-44-8	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.0030	0.010
Heptachlor epoxide	1024-57-3	SVOC	6/18/2010	1/10/2011	15	0	0	ug/L	0.010	0.010
Hexachlorobenzene	118-74-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Hexachlorobutadiene	87-68-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Hexachlorocyclopentadiene	77-47-4	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Hexachloroethane	67-72-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Hexachlorophene	70-30-4	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	10	10
Hexachloropropene	1888-71-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Indeno(1,2,3-cd)pyrene	193-39-5	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Iodomethane	74-88-4	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.092	0.092
Isobutyl alcohol	78-83-1	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	8.7	8.7
Isodrin	465-73-6	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Isophorone	78-59-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Isosafrole	120-58-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.3	1.3
Kepone	143-50-0	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	20	20
m-Dinitrobenzene	99-65-0	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Methacrylonitrile	126-98-7	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.050	0.50
Methanol	67-56-1	SVOC	9/19/2010	9/21/2010	5	0	0	ug/L	2,000	2,000
Methapyrilene	91-80-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.3	1.3
Methoxychlor	72-43-5	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.0010	0.010
Methyl methacrylate	80-62-6	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.26	0.26
Methyl methanesulfonate	66-27-3	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Methyl parathion	298-00-0	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Naphthalene	91-20-3	VOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Niobium-94	14681-63-1	RAD	1/7/2011	10/27/2011	6	0	0	pCi/L	1.4	7.1
Nitrobenzene	98-95-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
Nitrosopyrrolidine	930-55-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosodiethylamine	55-18-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosodimethylamine	62-75-9	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
n-Nitrosodi-n-butylamine	924-16-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosodi-n-propylamine	621-64-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosodiphenylamine	86-30-6	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosomethylethylamine	10595-95-6	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosomorpholine	59-89-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
n-Nitrosopiperidine	100-75-4	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
O,O,O-Triethyl phosphorothioate	126-68-1	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
o-Toluidine	95-53-4	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Parathion	56-38-2	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
p-Dimethylaminoazobenzene	60-11-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pentachlorobenzene	608-93-5	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pentachloroethane	76-01-7	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pentachloronitrobenzene (PCNB)	82-68-8	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pentachlorophenol	87-86-5	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.3	1.3
Phenacetin	62-44-2	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Phenanthrene	85-01-8	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Phenol	108-95-2	VOC	9/19/2010	9/21/2010	5	0	0	ug/L	2.0	2.0
Phorate	298-02-2	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Phosphate	14265-44-2	ANION	10/22/2009	9/28/2016	42	0	0	ug/L	215	429
Plutonium-238	13981-16-3	RAD	9/19/2010	12/9/2016	16	0	0	pCi/L	0.021	0.72
Plutonium-239/240	PU-239/240	RAD	9/19/2010	12/9/2016	16	0	0	pCi/L	0.022	0.64
Plutonium-241	14119-32-5	RAD	10/13/2016	12/9/2016	6	0	0	pCi/L	15	25
p-Phenylenediamine	106-50-3	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pronamide	23950-58-5	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Pyrene	129-00-0	SVOC	9/19/2010	4/18/2017	13	0	0	ug/L	0.028	1.0
Pyridine	110-86-1	VOC	9/19/2010	1/10/2011	10	0	0	ug/L	2.0	2.0
Ruthenium-106	13967-48-1	RAD	10/22/2009	4/14/2014	337	0	0	pCi/L	21	260
Safrol	94-59-7	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Silver-108 metastable	14391-65-2	RAD	1/7/2011	1/10/2011	5	0	0	pCi/L	1.2	2.9
sym-Trinitrobenzene	99-35-4	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Tetrachloroethene	127-18-4	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.088	1.0
Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	PESTICIDE	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Tin-126	15832-50-5	RAD	10/27/2011	10/27/2011	1	0	0	pCi/L	18	18
Total petroleum hydrocarbons - kerosene range	TPHKEROSENE	TPH	11/10/2009	4/18/2017	87	0	0	ug/L	0.40	600
Toxaphene	8001-35-2	PESTICIDE	6/18/2010	1/10/2011	15	0	0	ug/L	0.66	0.66

Table B-3. 100-KR-4 Groundwater Operable Unit Non-Detected Analytes

Analyte	CAS#	Analyte Class	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Units	Minimum Detection Limit	Maximum Detection Limit
trans-1,2-Dichloroethylene	156-60-5	VOC	10/22/2009	2/1/2017	423	0	0	ug/L	0.080	1.0
trans-1,3-Dichloropropene	10061-02-6	VOC	10/22/2009	1/10/2011	64	0	0	ug/L	0.083	1.0
trans-1,4-Dichloro-2-butene	110-57-6	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.29	0.29
Tributyl phosphate	126-73-8	SVOC	9/19/2010	1/10/2011	10	0	0	ug/L	1.0	1.0
Trichloromonofluoromethane	75-69-4	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.041	0.11
Vinyl acetate	108-05-4	VOC	3/5/2010	1/10/2011	46	0	0	ug/L	0.17	0.18
Vinyl chloride	75-01-4	VOC	10/22/2009	3/13/2017	510	0	0	ug/L	0.032	1.0

Table B-4. 100-KR-4 Groundwater Operable Unit Excluded Analytes

Analyte Name	CAS No.	Analyte Class	Total Samples	Total Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Basis for Exclusion
Bromide	24959-67-9	ANION	41	15	37	ug/L	90	170	89	430	No Toxicity Value
Chloride	16887-00-6	ANION	1283	1283	100	ug/L	--	--	798	148,000	No Toxicity Value
Sulfate	14808-79-8	ANION	1283	1283	100	ug/L	--	--	7,500	137,000	No Toxicity Value
Alkalinity	ALKALINITY	GEN CHEM	450	450	100	ug/L	--	--	62,100	210,000	No Toxicity Value
Bicarbonate	71-52-3	GEN CHEM	125	125	100	ug/L	--	--	81,800	177,000	No Toxicity Value
Bi-carbonate alkalinity	HCO3ALKALINITY	GEN CHEM	101	101	100	ug/L	--	--	62,100	164,000	No Toxicity Value
Carbonate alkalinity	CO3ALKALINITY	GEN CHEM	226	5	2.2	ug/L	330	1,450	540	8,000	No Toxicity Value
Hydroxylion	84625-61-6	GEN CHEM	225	3	1.3	ug/L	330	1,450	540	540	No Toxicity Value
Total organic carbon	TOC	GEN CHEM	2	2	100	ug/L	--	--	208	225	No Toxicity Value
Calcium	7440-70-2	METAL	1082	1082	100	ug/L	--	--	16,700	92,200	Essential Nutrient
Lead	7439-92-1	METAL	587	136	23	ug/L	0.050	10	0.067	16	No Toxicity Value
Magnesium	7439-95-4	METAL	1082	1082	100	ug/L	--	--	3,630	21,100	Essential Nutrient
Phosphorus	7723-14-0	METAL	45	15	33	ug/L	55	72	57	121	No Toxicity Value
Potassium	7440-09-7	METAL	1082	1079	100	ug/L	250	1,650	1,110	18,200	Essential Nutrient
Silicon	7440-21-3	METAL	45	45	100	ug/L	--	--	7,620	20,100	No Toxicity Value
Sodium	7440-23-5	METAL	1082	1082	100	ug/L	--	--	2,240	59,200	Essential Nutrient
Thorium	7440-29-1	METAL	331	17	5.1	ug/L	0.032	1.2	0.040	0.81	No Toxicity Value
Titanium	7440-32-6	METAL	13	1	7.7	ug/L	4.0	4.1	6.0	6.0	No Toxicity Value
Cesium-134	13967-70-9	RAD	635	1	0.16	pCi/L	1.6	160	11	11	Less than 3 year half-life
Gross alpha	12587-46-1	RAD	587	210	36	pCi/L	0.53	7.0	0.40	18	No Toxicity Value
Gross beta	12587-47-2	RAD	587	567	97	pCi/L	1.8	7.8	1.5	426	No Toxicity Value
Potassium-40	13966-00-2	RAD	635	36	5.7	pCi/L	14	640	31	450	Background Radionuclide
Total petroleum hydrocarbons - diesel range	TPHDIESEL	TPH	116	6	5.2	ug/L	0.40	220	27	139	No Toxicity Value
Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	TPH	102	15	15	ug/L	10	200	8.6	53	No Toxicity Value
Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	TPH	6	3	50	ug/L	48	48	65	203	No Toxicity Value
1,3-Dichlorobenzene	541-73-1	VOC	11	1	9.1	ug/L	1.0	1.0	0.14	0.14	No Toxicity Value
Benzoic acid, 2-((trimethylsilyloxy)-,trimethylsilyl ester	3789-85-3	VOC	2	2	100	ug/L	--	--	3.4	4.1	No Toxicity Value
Benzoic acid, 5-methyl	1000153-59-4	VOC	1	1	100	ug/L	--	--	1.5	1.5	No Toxicity Value
Cyclotetrasiloxane, Octamethyl	556-67-2	VOC	5	5	100	ug/L	--	--	1.7	6.5	No Toxicity Value
Hexamethylcyclotrisiloxane	541-05-9	VOC	3	3	100	ug/L	--	--	1.4	2.4	No Toxicity Value

Table B-5. Raw Statistics Output Excel File Names for 100--KR-4 Groundwater Operable Unit

Well-Specific			
199-K-106A1of2_WNDRawStats.xls	199-K-147_WNDRawStats.xls	199-K-184_WNDRawStats.xls	199-K-21_WNDRawStats.xls
199-K-106A12of2_WNDRawStats.xls	199-K-148_WNDRawStats.xls	199-K-185_WNDRawStats.xls	199-K-221_WNDRawStats.xls
199-K-107A_WNDRawStats.xls	199-K-151!1of3_WNDRawStats.xls	199-K-186_WNDRawStats.xls	199-K-222_WNDRawStats.xls
199-K-108A_WNDRawStats.xls	199-K-151!2of3_WNDRawStats.xls	199-K-187_WNDRawStats.xls	199-K-223_WNDRawStats.xls
199-K-110A_WNDRawStats.xls	199-K-151!3of3_WNDRawStats.xls	199-K-188_WNDRawStats.xls	199-K-224_WNDRawStats.xls
199-K-111A_WNDRawStats.xls	199-K-152!1of3_WNDRawStats.xls	199-K-189_WNDRawStats.xls	199-K-22_WNDRawStats.xls
199-K-113A_WNDRawStats.xls	199-K-152!2of3_WNDRawStats.xls	199-K-18_WNDRawStats.xls	199-K-23_WNDRawStats.xls
199-K-114A_WNDRawStats.xls	199-K-152!3of3_WNDRawStats.xls	199-K-190_WNDRawStats.xls	199-K-29_WNDRawStats.xls
199-K-116A_WNDRawStats.xls	199-K-153_WNDRawStats.xls	199-K-191_WNDRawStats.xls	199-K-30_WNDRawStats.xls
199-K-117A_WNDRawStats.xls	199-K-154_WNDRawStats.xls	199-K-192_WNDRawStats.xls	199-K-31_WNDRawStats.xls
199-K-11_WNDRawStats.xls	199-K-157_WNDRawStats.xls	199-K-193_WNDRawStats.xls	199-K-32A_WNDRawStats.xls
199-K-120A_WNDRawStats.xls	199-K-161_WNDRawStats.xls	199-K-194_WNDRawStats.xls	199-K-32B_WNDRawStats.xls
199-K-125A_WNDRawStats.xls	199-K-163_WNDRawStats.xls	199-K-19_WNDRawStats.xls	199-K-34_WNDRawStats.xls
199-K-132_WNDRawStats.xls	199-K-165_WNDRawStats.xls	199-K-200_WNDRawStats.xls	199-K-35, K-195, K-205_WNDRawStats.xls
199-K-137_WNDRawStats.xls	199-K-166_WNDRawStats.xls	199-K-201_WNDRawStats.xls	199-K-36_WNDRawStats.xls
199-K-138_WNDRawStats.xls	199-K-168_WNDRawStats.xls	199-K-202_WNDRawStats.xls	199-K-37!1of3_WNDRawStats.xls
199-K-139_WNDRawStats.xls	199-K-171_WNDRawStats.xls	199-K-203_WNDRawStats.xls	199-K-37!2of3_WNDRawStats.xls
199-K-140_WNDRawStats.xls	199-K-173_WNDRawStats.xls	199-K-204_WNDRawStats.xls	199-K-37!3of3_WNDRawStats.xls
199-K-141_WNDRawStats.xls	199-K-178_WNDRawStats.xls	199-K-207_WNDRawStats.xls	699-72-73_WNDRawStats.xls
199-K-142_WNDRawStats.xls	199-K-182!1of3_WNDRawStats.xls	199-K-208_WNDRawStats.xls	699-73-61!1of3_WNDRawStats.xls
199-K-144_WNDRawStats.xls	199-K-182!2of3_WNDRawStats.xls	199-K-209_WNDRawStats.xls	699-73-61!2of3_WNDRawStats.xls
199-K-145_WNDRawStats.xls	199-K-182!3of3_WNDRawStats.xls	199-K-20_WNDRawStats.xls	699-73-61!3of3_WNDRawStats.xls
199-K-146_WNDRawStats.xls	199-K-183_WNDRawStats.xls	199-K-210_WNDRawStats.xls	--
Grouped Wells			
ALL!1of3_WNDRawStats.xls	ALL!2of3_WNDRawStats.xls	ALL!3of3_WNDRawStats.xls	--

Table B-6. UCL Output Excel File Names for 100-KR-4 Groundwater Operable Unit

Well-Specific			
199-K-106A!1of2_WNDStats.xls	199-K-147_WNDStats.xls	199-K-184_WNDStats.xls	199-K-21_WNDStats.xls
199-K-106A!2of2_WNDStats.xls	199-K-148_WNDStats.xls	199-K-185_WNDStats.xls	199-K-221_WNDStats.xls
199-K-107A_WNDStats.xls	199-K-151!1of3_WNDStats.xls	199-K-186_WNDStats.xls	199-K-222_WNDStats.xls
199-K-108A_WNDStats.xls	199-K-151!2of3_WNDStats.xls	199-K-187_WNDStats.xls	199-K-223_WNDStats.xls
199-K-110A_WNDStats.xls	199-K-151!3of3_WNDStats.xls	199-K-188_WNDStats.xls	199-K-224_WNDStats.xls
199-K-111A_WNDStats.xls	199-K-152!1of3_WNDStats.xls	199-K-189_WNDStats.xls	199-K-22_WNDStats.xls
199-K-113A_WNDStats.xls	199-K-152!2of3_WNDStats.xls	199-K-18_WNDStats.xls	199-K-23_WNDStats.xls
199-K-114A_WNDStats.xls	199-K-152!3of3_WNDStats.xls	199-K-190_WNDStats.xls	199-K-29_WNDStats.xls
199-K-116A_WNDStats.xls	199-K-153_WNDStats.xls	199-K-191_WNDStats.xls	199-K-30_WNDStats.xls
199-K-117A_WNDStats.xls	199-K-154_WNDStats.xls	199-K-192_WNDStats.xls	199-K-31_WNDStats.xls
199-K-11_WNDStats.xls	199-K-157_WNDStats.xls	199-K-193_WNDStats.xls	199-K-32A_WNDStats.xls
199-K-120A_WNDStats.xls	199-K-161_WNDStats.xls	199-K-194_WNDStats.xls	199-K-32B_WNDStats.xls
199-K-125A_WNDStats.xls	199-K-163_WNDStats.xls	199-K-19_WNDStats.xls	199-K-34_WNDStats.xls
199-K-132_WNDStats.xls	199-K-165_WNDStats.xls	199-K-200_WNDStats.xls	199-K-35, K-195, K-205_WNDStats.xls
199-K-137_WNDStats.xls	199-K-166_WNDStats.xls	199-K-201_WNDStats.xls	199-K-36_WNDStats.xls
199-K-138_WNDStats.xls	199-K-168_WNDStats.xls	199-K-202_WNDStats.xls	199-K-37!1of3_WNDStats.xls
199-K-139_WNDStats.xls	199-K-171_WNDStats.xls	199-K-203_WNDStats.xls	199-K-37!2of3_WNDStats.xls
199-K-140_WNDStats.xls	199-K-173_WNDStats.xls	199-K-204_WNDStats.xls	199-K-37!3of3_WNDStats.xls
199-K-141_WNDStats.xls	199-K-178_WNDStats.xls	199-K-207_WNDStats.xls	699-72-73_WNDStats.xls
199-K-142_WNDStats.xls	199-K-182!1of3_WNDStats.xls	199-K-208_WNDStats.xls	699-73-61!1of3_WNDStats.xls
199-K-144_WNDStats.xls	199-K-182!2of3_WNDStats.xls	199-K-209_WNDStats.xls	699-73-61!2of3_WNDStats.xls
199-K-145_WNDStats.xls	199-K-182!3of3_WNDStats.xls	199-K-20_WNDStats.xls	699-73-61!3of3_WNDStats.xls
199-K-146_WNDStats.xls	199-K-183_WNDStats.xls	199-K-210_WNDStats.xls	--
Grouped Wells			
ALL!1of3_WNDStats.xls	ALL!2of3_WNDStats.xls	ALL!3of3_WNDStats.xls	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-106A	non-Rad	2-Propanol	67-63-0	2	2	0	100	ug/L	--	--	64	370	1.00	370	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-106A	non-Rad	Acetone	67-64-1	19	3	16	16	ug/L	0.34	5.0	0.50	3.7	0.70	1.2	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-106A	non-Rad	Aluminum	7429-90-5	16	10	6	63	ug/L	10	15	8.9	93	0.73	38	95% KM (t) UCL	--
199-K-106A	non-Rad	Arsenic	7440-38-2	16	16	0	100	ug/L	--	--	2.6	4.5	0.20	3.6	95% Student's-t UCL	--
199-K-106A	non-Rad	Barium	7440-39-3	21	21	0	100	ug/L	--	--	32	52	0.13	42	95% Student's-t UCL	--
199-K-106A	non-Rad	Boron	7440-42-8	10	10	0	100	ug/L	--	--	22	40	0.24	34	95% Student's-t UCL	--
199-K-106A	non-Rad	Bromomethane	74-83-9	3	2	1	67	ug/L	1.0	1.0	0.11	1.6	1.2	1.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-106A	non-Rad	Chlorobenzene	108-90-7	19	1	18	5	ug/L	0.15	1.0	0.17	0.17	0	0.17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chlorobenzene was not processed!
199-K-106A	non-Rad	Chloroform	67-66-3	19	14	5	74	ug/L	0.30	1.0	0.13	1.5	0.76	0.72	95% GROS Adjusted Gamma UCL	--
199-K-106A	non-Rad	Chloromethane	74-87-3	3	1	2	33	ug/L	0.077	1.0	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-K-106A	non-Rad	Chromium	7440-47-3	21	20	1	95	ug/L	13	13	3.9	15	0.42	8.7	95% KM Adjusted Gamma UCL	--
199-K-106A	non-Rad	Cobalt	7440-48-4	16	8	8	50	ug/L	0.050	0.22	0.066	0.21	0.41	0.14	95% KM (t) UCL	--
199-K-106A	non-Rad	Copper	7440-50-8	16	14	2	88	ug/L	0.20	0.97	0.25	1.4	0.46	0.86	95% KM (t) UCL	--
199-K-106A	non-Rad	Fluoride	16984-48-8	40	40	0	100	ug/L	--	--	139	300	0.19	247	95% Student's-t UCL	--
199-K-106A	non-Rad	Hexane	110-54-3	1	1	0	100	ug/L	--	--	0.46	0.46	0	0.46	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-106A	non-Rad	Hexavalent Chromium	18540-29-9	30	20	10	67	ug/L	1.5	9.7	1.7	4.4	0.26	2.8	95% KM (t) UCL	--
199-K-106A	non-Rad	Iron	7439-89-6	13	11	2	85	ug/L	18	30	27	168	0.55	89	95% KM (t) UCL	--
199-K-106A	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	29	29	0	29	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-106A	non-Rad	Manganese	7439-96-5	15	5	10	33	ug/L	1.0	4.0	1.6	5.0	0.59	2.3	95% KM (t) UCL	--
199-K-106A	non-Rad	Molybdenum	7439-98-7	15	15	0	100	ug/L	--	--	2.5	8.0	0.42	3.9	95% Modified-t UCL	--
199-K-106A	non-Rad	Nickel	7440-02-0	15	11	4	73	ug/L	4.0	4.0	1.7	6.5	0.53	3.5	95% KM (t) UCL	--
199-K-106A	non-Rad	Nitrate	14797-55-8	40	40	0	100	ug/L	--	--	34,100	100,531	0.30	64,075	95% Adjusted Gamma UCL	--
199-K-106A	non-Rad	Nitrite	14797-65-0	40	8	32	20	ug/L	9.9	131	256	640	0.35	122	95% KM (t) UCL	--
199-K-106A	non-Rad	Selenium	7782-49-2	16	5	11	31	ug/L	1.0	2.0	0.64	1.4	0.34	1.0	95% KM (t) UCL	--
199-K-106A	non-Rad	Strontium	7440-24-6	11	11	0	100	ug/L	--	--	265	418	0.16	380	95% Student's-t UCL	--
199-K-106A	non-Rad	Styrene	100-42-5	3	1	2	33	ug/L	0.036	1.0	0.21	0.21	0	0.21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Styrene was not processed!
199-K-106A	non-Rad	Thallium	7440-28-0	16	1	15	6	ug/L	0.050	0.60	0.50	0.50	0	0.50	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-106A	non-Rad	Tin	7440-31-5	15	2	13	13	ug/L	0.050	1.0	0.096	1.4	1.2	0.92	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-106A	non-Rad	Toluene	108-88-3	19	1	18	5	ug/L	0.062	1.0	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-106A	non-Rad	Trichloroethene	79-01-6	19	19	0	100	ug/L	--	--	0.78	7.4	0.75	3.4	95% Adjusted Gamma UCL	--
199-K-106A	non-Rad	Uranium	7440-61-1	10	10	0	100	ug/L	--	--	6.1	11	0.22	8.4	95% Modified-t UCL	--
199-K-106A	non-Rad	Vanadium	7440-62-2	14	12	2	86	ug/L	12	12	8.3	19	0.28	12	95% KM (t) UCL	--
199-K-106A	non-Rad	Xylenes (total)	1330-20-7	19	1	18	5	ug/L	0.11	1.0	0.24	0.24	0	0.24	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Xylenes (total) was not processed!
199-K-106A	non-Rad	Zinc	7440-66-6	15	2	13	13	ug/L	2.0	8.3	5.1	6.6	0.18	3.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-106A	Rad	Carbon-14	14762-75-5	29	29	0	100	pCi/L	--	--	3,970	40,100	0.61	22,900	95% Adjusted Gamma UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-106A	Rad	Strontium-90	10098-97-2	22	1	21	5	pCi/L	0.54	2.1	6.3	6.3	0	6.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-106A	Rad	Tritium	10028-17-8	41	41	0	100	pCi/L	--	--	402	91,900	1.3	48,073	95% Chebyshev (Mean, Sd) UCL	--
199-K-107A	non-Rad	2-Butanone	78-93-3	16	2	14	13	ug/L	0.47	3.0	0.55	0.77	0.24	0.62	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-107A	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	140	140	0	140	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-107A	non-Rad	Acetone	67-64-1	16	4	12	25	ug/L	0.34	5.0	0.57	7.3	0.74	2.4	95% KM (t) UCL	--
199-K-107A	non-Rad	Aluminum	7429-90-5	5	2	3	40	ug/L	13	17	46	110	0.58	110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-107A	non-Rad	Antimony	7440-36-0	5	2	3	40	ug/L	1.7	1.7	0.27	0.58	0.52	0.58	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-107A	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	1.7	3.2	0.24	3.0	95% Student's-t UCL	--
199-K-107A	non-Rad	Barium	7440-39-3	17	17	0	100	ug/L	--	--	37	62	0.13	50	95% Student's-t UCL	--
199-K-107A	non-Rad	Beryllium	7440-41-7	5	1	4	20	ug/L	0.27	0.35	0.31	0.31	0	0.31	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-107A	non-Rad	Boron	7440-42-8	5	4	1	80	ug/L	11	11	13	17	0.14	17	95% KM (t) UCL	--
199-K-107A	non-Rad	Chloroform	67-66-3	16	9	7	56	ug/L	1.0	1.0	0.23	0.58	0.30	0.40	95% KM (t) UCL	--
199-K-107A	non-Rad	Chromium	7440-47-3	17	17	0	100	ug/L	--	--	8.2	32	0.40	18	95% Student's-t UCL	--
199-K-107A	non-Rad	Cobalt	7440-48-4	5	2	3	40	ug/L	0.22	0.22	0.15	0.22	0.27	0.20	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-107A	non-Rad	Copper	7440-50-8	5	1	4	20	ug/L	0.45	1.1	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-107A	non-Rad	Fluoride	16984-48-8	29	29	0	100	ug/L	--	--	93	229	0.16	181	95% Student's-t UCL	--
199-K-107A	non-Rad	Hexane	110-54-3	1	1	0	100	ug/L	--	--	0.83	0.83	0	0.83	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-107A	non-Rad	Hexavalent Chromium	18540-29-9	30	30	0	100	ug/L	--	--	5.6	27	0.51	13	95% Modified-t UCL	--
199-K-107A	non-Rad	Iron	7439-89-6	17	15	2	88	ug/L	16	30	24	570	1.3	212	95% GROS Adjusted Gamma UCL	--
199-K-107A	non-Rad	Manganese	7439-96-5	17	5	12	29	ug/L	0.70	4.0	0.88	11	1.2	3.8	95% Gamma Adjusted KM-UCL	--
199-K-107A	non-Rad	Methylene chloride	75-09-2	16	1	15	6	ug/L	0.27	1.6	0.31	0.31	0	0.31	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-107A	non-Rad	Molybdenum	7439-98-7	5	5	0	100	ug/L	--	--	1.5	1.9	0.12	1.9	95% Student's-t UCL	--
199-K-107A	non-Rad	Nickel	7440-02-0	17	6	11	35	ug/L	1.6	13	1.2	15	1.2	5.0	95% Gamma Adjusted KM-UCL	--
199-K-107A	non-Rad	Nitrate	14797-55-8	29	29	0	100	ug/L	--	--	21,900	64,200	0.27	30,891	95% Modified-t UCL	--
199-K-107A	non-Rad	Nitrite	14797-65-0	29	6	23	21	ug/L	9.9	131	177	266	0.18	83	95% KM (t) UCL	--
199-K-107A	non-Rad	Selenium	7782-49-2	5	1	4	20	ug/L	0.66	1.6	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-107A	non-Rad	Silver	7440-22-4	17	2	15	12	ug/L	0.82	6.0	0.040	0.070	0.39	0.070	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-107A	non-Rad	Strontium	7440-24-6	13	13	0	100	ug/L	--	--	229	381	0.15	305	95% Student's-t UCL	--
199-K-107A	non-Rad	Tin	7440-31-5	5	1	4	20	ug/L	1.1	1.3	5.2	5.2	0	5.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-107A	non-Rad	Toluene	108-88-3	16	1	15	6	ug/L	0.070	1.0	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-107A	non-Rad	Trichloroethene	79-01-6	16	15	1	94	ug/L	0.50	0.50	2.3	5.0	0.18	3.6	95% KM (t) UCL	--
199-K-107A	non-Rad	Uranium	7440-61-1	9	9	0	100	ug/L	--	--	1.7	3.8	0.22	3.3	95% Student's-t UCL	--
199-K-107A	non-Rad	Vanadium	7440-62-2	17	13	4	76	ug/L	5.0	15	6.6	9.4	0.097	8.4	95% KM (t) UCL	--
199-K-107A	non-Rad	Zinc	7440-66-6	17	4	13	24	ug/L	3.0	9.3	6.2	20	0.60	7.1	95% KM (t) UCL	--
199-K-107A	Rad	Carbon-14	14762-75-5	13	13	0	100	pCi/L	--	--	347	816	0.23	687	95% Student's-t UCL	--
199-K-107A	Rad	Strontium-90	10098-97-2	24	24	0	100	pCi/L	--	--	9.2	32	0.32	20	95% Student's-t UCL	--
199-K-107A	Rad	Technetium-99	14133-76-7	11	10	1	91	pCi/L	10	10	16	52	0.33	37	95% KM (t) UCL	--
199-K-107A	Rad	Tritium	10028-17-8	39	39	0	100	pCi/L	--	--	617	1,700	0.21	1,355	95% Student's-t UCL	--
199-K-108A	non-Rad	Acetone	67-64-1	9	1	8	11	ug/L	0.34	5.0	0.59	0.59	0	0.59	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-108A	non-Rad	Aluminum	7429-90-5	27	13	14	48	ug/L	10	20	13	74	0.62	28	95% GROS Adjusted Gamma UCL	--
199-K-108A	non-Rad	Antimony	7440-36-0	27	1	26	4	ug/L	0.60	1.7	0.28	0.28	0	0.28	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-108A	non-Rad	Arsenic	7440-38-2	27	26	1	96	ug/L	1.7	1.7	1.7	3.4	0.20	2.6	95% KM (t) UCL	--
199-K-108A	non-Rad	Barium	7440-39-3	36	36	0	100	ug/L	--	--	30	49	0.10	38	95% Student's-t UCL	--
199-K-108A	non-Rad	Boron	7440-42-8	16	15	1	94	ug/L	19	19	18	29	0.14	22	95% KM (t) UCL	--
199-K-108A	non-Rad	Bromomethane	74-83-9	3	2	1	67	ug/L	1.0	1.0	0.12	1.1	1.1	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-108A	non-Rad	Chloroform	67-66-3	9	4	5	44	ug/L	0.30	1.0	0.18	0.66	0.61	0.45	95% KM (t) UCL	--
199-K-108A	non-Rad	Chloromethane	74-87-3	3	1	2	33	ug/L	0.077	1.0	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-K-108A	non-Rad	Chromium	7440-47-3	37	34	3	92	ug/L	14	14	5.4	92	1.2	26	95% KM (Chebyshev) UCL	--
199-K-108A	non-Rad	Cobalt	7440-48-4	27	15	12	56	ug/L	0.10	0.22	0.10	0.86	0.73	0.31	95% KM Adjusted Gamma UCL	--
199-K-108A	non-Rad	Copper	7440-50-8	27	20	7	74	ug/L	0.20	0.54	0.27	4.4	0.98	1.3	95% KM H-UCL	--
199-K-108A	non-Rad	Fluoride	16984-48-8	31	31	0	100	ug/L	--	--	180	340	0.16	290	95% Student's-t UCL	--
199-K-108A	non-Rad	Hexavalent Chromium	18540-29-9	39	26	13	67	ug/L	2.0	9.7	2.1	7.9	0.40	4.0	95% KM (t) UCL	--
199-K-108A	non-Rad	Iron	7439-89-6	29	27	2	93	ug/L	19	28	22	289	0.78	95	95% GROS Adjusted Gamma UCL	--
199-K-108A	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	8.1	24	0.70	24	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-108A	non-Rad	Manganese	7439-96-5	31	17	14	55	ug/L	2.0	6.0	1.1	23	1.1	5.4	95% KM Adjusted Gamma UCL	--
199-K-108A	non-Rad	Mercury	7439-97-6	13	1	12	8	ug/L	0.060	0.10	0.077	0.077	0	0.077	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-K-108A	non-Rad	Molybdenum	7439-98-7	26	26	0	100	ug/L	--	--	2.8	4.8	0.12	4.2	95% Student's-t UCL	--
199-K-108A	non-Rad	Nickel	7440-02-0	31	24	7	77	ug/L	4.0	13	2.3	136	1.1	33	95% Gamma Adjusted KM-UCL	--
199-K-108A	non-Rad	Nitrate	14797-55-8	31	31	0	100	ug/L	--	--	29,700	73,500	0.37	48,828	95% Modified-t UCL	--
199-K-108A	non-Rad	Nitrite	14797-65-0	31	8	23	26	ug/L	9.9	131	208	317	0.14	111	95% KM (t) UCL	--
199-K-108A	non-Rad	Selenium	7782-49-2	27	7	20	26	ug/L	1.5	2.0	1.2	4.9	0.73	1.7	95% KM (BCA) UCL	--
199-K-108A	non-Rad	Strontium	7440-24-6	28	28	0	100	ug/L	--	--	246	376	0.11	299	95% Student's-t UCL	--
199-K-108A	non-Rad	Styrene	100-42-5	3	1	2	33	ug/L	0.036	1.0	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Styrene was not processed!
199-K-108A	non-Rad	Tetrahydrofuran	109-99-9	6	1	5	17	ug/L	1.1	2.0	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrahydrofuran was not processed!
199-K-108A	non-Rad	Thallium	7440-28-0	27	2	25	7	ug/L	0.060	0.60	0.57	0.80	0.23	0.19	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-108A	non-Rad	Tin	7440-31-5	26	4	22	15	ug/L	0.10	1.1	0.19	3.1	1.3	0.52	95% KM (t) UCL	--
199-K-108A	non-Rad	Trichloroethene	79-01-6	9	9	0	100	ug/L	--	--	1.3	4.2	0.41	3.3	95% Student's-t UCL	--
199-K-108A	non-Rad	Uranium	7440-61-1	17	17	0	100	ug/L	--	--	4.2	9.3	0.20	7.5	95% Student's-t UCL	--
199-K-108A	non-Rad	Vanadium	7440-62-2	30	20	10	67	ug/L	4.4	17	4.8	23	0.51	8.0	95% KM (BCA) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-108A	non-Rad	Zinc	7440-66-6	31	28	3	90	ug/L	3.3	5.0	4.1	17	0.41	9.6	95% KM (t) UCL	--
199-K-108A	Rad	Carbon-14	14762-75-5	23	23	0	100	pCi/L	--	--	265	1,180	0.32	828	95% Student's-t UCL	--
199-K-108A	Rad	Strontium-90	10098-97-2	22	1	21	5	pCi/L	0.46	2.6	0.93	0.93	0	0.93	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-108A	Rad	Technetium-99	14133-76-7	13	1	12	8	pCi/L	5.5	37	24	24	0	24	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-108A	Rad	Tritium	10028-17-8	23	16	7	70	pCi/L	250	365	170	1,150	0.44	552	95% KM (t) UCL	--
199-K-11	non-Rad	Aluminum	7429-90-5	10	2	8	20	ug/L	10	20	11	30	0.66	24	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-11	non-Rad	Arsenic	7440-38-2	10	10	0	100	ug/L	--	--	5.5	7.3	0.10	6.7	95% Student's-t UCL	--
199-K-11	non-Rad	Barium	7440-39-3	10	10	0	100	ug/L	--	--	29	45	0.17	40	95% Student's-t UCL	--
199-K-11	non-Rad	Boron	7440-42-8	6	4	2	67	ug/L	19	25	13	25	0.27	23	95% KM (t) UCL	--
199-K-11	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.96	0.96	0	0.96	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-11	non-Rad	Chloroform	67-66-3	5	5	0	100	ug/L	--	--	0.31	1.2	0.56	1.1	95% Student's-t UCL	--
199-K-11	non-Rad	Chloromethane	74-87-3	3	1	2	33	ug/L	0.077	1.0	0.15	0.15	0	0.15	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-K-11	non-Rad	Chromium	7440-47-3	10	10	0	100	ug/L	--	--	2.0	19	0.84	11	95% Student's-t UCL	--
199-K-11	non-Rad	Cobalt	7440-48-4	10	1	9	10	ug/L	0.10	0.90	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-11	non-Rad	Copper	7440-50-8	10	1	9	10	ug/L	0.20	0.68	0.42	0.42	0	0.42	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-11	non-Rad	Fluoride	16984-48-8	14	14	0	100	ug/L	--	--	131	280	0.20	235	95% Student's-t UCL	--
199-K-11	non-Rad	Hexavalent Chromium	18540-29-9	10	8	2	80	ug/L	2.0	2.0	3.2	17	0.69	17	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-11	non-Rad	Iron	7439-89-6	7	6	1	86	ug/L	38	38	14	91	0.61	63	95% KM (t) UCL	--
199-K-11	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	8.2	16	0.46	16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-11	non-Rad	Manganese	7439-96-5	8	5	3	63	ug/L	4.0	4.0	1.7	7.5	0.71	4.5	95% KM (t) UCL	--
199-K-11	non-Rad	Molybdenum	7439-98-7	9	9	0	100	ug/L	--	--	1.0	3.1	0.24	2.8	95% Student's-t UCL	--
199-K-11	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	12,600	87,700	0.57	45,710	95% Student's-t UCL	--
199-K-11	non-Rad	Nitrite	14797-65-0	14	2	12	14	ug/L	62	131	174	268	0.30	124	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-11	non-Rad	Selenium	7782-49-2	10	3	7	30	ug/L	0.60	2.0	0.83	2.3	0.55	1.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-11	non-Rad	Silver	7440-22-4	10	1	9	10	ug/L	0.10	0.90	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-11	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	199	312	0.13	286	95% Student's-t UCL	--
199-K-11	non-Rad	Trichloroethene	79-01-6	5	5	0	100	ug/L	--	--	1.6	6.0	0.59	4.8	95% Student's-t UCL	--
199-K-11	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	2.8	6.0	0.21	5.7	95% Student's-t UCL	--
199-K-11	non-Rad	Vanadium	7440-62-2	8	8	0	100	ug/L	--	--	9.8	25	0.28	21	95% Student's-t UCL	--
199-K-11	non-Rad	Zinc	7440-66-6	8	1	7	13	ug/L	1.6	9.3	11	11	0	11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-11	Rad	Carbon-14	14762-75-5	10	10	0	100	pCi/L	--	--	72	152	0.23	130	95% Student's-t UCL	--
199-K-11	Rad	Technetium-99	14133-76-7	13	11	2	85	pCi/L	7.8	7.9	13	46	0.41	32	95% KM (t) UCL	--
199-K-11	Rad	Tritium	10028-17-8	15	13	2	87	pCi/L	170	190	330	600	0.21	494	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-110A	non-Rad	Aluminum	7429-90-5	7	5	2	71	ug/L	10	10	21	86	0.63	53	95% KM (t) UCL	--
199-K-110A	non-Rad	Antimony	7440-36-0	8	2	6	25	ug/L	0.60	3.7	0.16	0.20	0.16	0.20	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-110A	non-Rad	Arsenic	7440-38-2	8	7	1	88	ug/L	1.8	1.8	1.2	2.2	0.21	1.8	95% KM (t) UCL	--
199-K-110A	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	25	34	0.10	31	95% Student's-t UCL	--
199-K-110A	non-Rad	Boron	7440-42-8	5	4	1	80	ug/L	6.4	6.4	7.4	15	0.35	13	95% KM (t) UCL	--
199-K-110A	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	26	169	0.60	90	95% H-UCL	--
199-K-110A	non-Rad	Cobalt	7440-48-4	8	8	0	100	ug/L	--	--	0.84	5.5	0.59	3.9	95% Student's-t UCL	--
199-K-110A	non-Rad	Copper	7440-50-8	8	8	0	100	ug/L	--	--	1.5	5.7	0.39	4.5	95% Student's-t UCL	--
199-K-110A	non-Rad	Fluoride	16984-48-8	14	10	4	71	ug/L	46	72	69	132	0.16	113	95% KM (t) UCL	--
199-K-110A	non-Rad	Hexavalent Chromium	18540-29-9	13	12	1	92	ug/L	2.0	2.0	1.5	13	0.53	7.6	95% KM (t) UCL	--
199-K-110A	non-Rad	Iron	7439-89-6	13	13	0	100	ug/L	--	--	230	1,370	0.52	833	95% Student's-t UCL	--
199-K-110A	non-Rad	Manganese	7439-96-5	13	13	0	100	ug/L	--	--	4.4	27	0.60	14	95% Student's-t UCL	--
199-K-110A	non-Rad	Molybdenum	7439-98-7	7	7	0	100	ug/L	--	--	1.0	4.6	0.57	3.3	95% Student's-t UCL	--
199-K-110A	non-Rad	Nickel	7440-02-0	13	13	0	100	ug/L	--	--	10	108	0.78	62	95% Adjusted Gamma UCL	--
199-K-110A	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	9.870	24,300	0.30	18,112	95% Student's-t UCL	--
199-K-110A	non-Rad	Nitrite	14797-65-0	14	2	12	14	ug/L	9.9	131	250	411	0.34	133	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-110A	non-Rad	Selenium	7782-49-2	7	3	4	43	ug/L	0.60	1.6	1.0	1.4	0.20	1.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-110A	non-Rad	Strontium	7440-24-6	13	13	0	100	ug/L	--	--	216	310	0.11	262	95% Student's-t UCL	--
199-K-110A	non-Rad	Tin	7440-31-5	7	1	6	14	ug/L	0.10	1.3	1.6	1.6	0	1.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-110A	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	1.4	2.2	0.17	2.0	95% Student's-t UCL	--
199-K-110A	non-Rad	Vanadium	7440-62-2	13	8	5	62	ug/L	4.1	12	4.8	7.7	0.17	6.0	95% KM (t) UCL	--
199-K-110A	non-Rad	Zinc	7440-66-6	13	1	12	8	ug/L	1.6	9.3	9.1	9.1	0	9.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-110A	Rad	Tritium	10028-17-8	14	3	11	21	pCi/L	200	334	299	350	0.079	279	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-111A	non-Rad	Acetone	67-64-1	6	1	5	17	ug/L	0.34	5.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-111A	non-Rad	Aluminum	7429-90-5	9	8	1	89	ug/L	14	14	47	94	0.24	86	95% KM (t) UCL	--
199-K-111A	non-Rad	Antimony	7440-36-0	9	2	7	22	ug/L	0.084	2.0	0.45	0.81	0.40	0.81	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-111A	non-Rad	Arsenic	7440-38-2	9	9	0	100	ug/L	--	--	3.1	4.3	0.099	3.9	95% Student's-t UCL	--
199-K-111A	non-Rad	Barium	7440-39-3	30	30	0	100	ug/L	--	--	32	43	0.067	38	95% Student's-t UCL	--
199-K-111A	non-Rad	Boron	7440-42-8	9	9	0	100	ug/L	--	--	11	25	0.25	22	95% Student's-t UCL	--
199-K-111A	non-Rad	Chloroform	67-66-3	6	3	3	50	ug/L	1.0	1.0	0.50	0.52	0.020	0.52	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-111A	non-Rad	Chromium	7440-47-3	29	29	0	100	ug/L	--	--	33	622	0.67	317	95% Student's-t UCL	--
199-K-111A	non-Rad	Cobalt	7440-48-4	9	1	8	11	ug/L	0.070	0.90	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-111A	non-Rad	Copper	7440-50-8	9	4	5	44	ug/L	0.68	2.0	0.41	1.4	0.56	0.91	95% KM (t) UCL	--
199-K-111A	non-Rad	Fluoride	16984-48-8	27	27	0	100	ug/L	--	--	135	280	0.22	225	95% Student's-t UCL	--
199-K-111A	non-Rad	Hexavalent Chromium	18540-29-9	26	26	0	100	ug/L	--	--	30	571	0.63	305	95% Student's-t UCL	--
199-K-111A	non-Rad	Iron	7439-89-6	30	27	3	90	ug/L	28	40	28	180	0.50	85	95% GROS Adjusted Gamma UCL	--
199-K-111A	non-Rad	Manganese	7439-96-5	30	9	21	30	ug/L	0.30	6.0	1.6	6.6	0.47	3.0	95% KM (t) UCL	--
199-K-111A	non-Rad	Molybdenum	7439-98-7	9	9	0	100	ug/L	--	--	3.6	4.4	0.072	4.1	95% Modified-t UCL	--
199-K-111A	non-Rad	Nickel	7440-02-0	30	10	20	33	ug/L	1.5	13	1.0	13	0.89	3.4	95% KM (t) UCL	--
199-K-111A	non-Rad	Nitrate	14797-55-8	27	27	0	100	ug/L	--	--	27,000	44,700	0.11	36,358	95% Student's-t UCL	--
199-K-111A	non-Rad	Nitrite	14797-65-0	27	8	19	30	ug/L	62	131	167	288	0.18	139	95% KM (t) UCL	--
199-K-111A	non-Rad	Selenium	7782-49-2	9	5	4	56	ug/L	0.66	2.0	1.9	4.3	0.38	3.0	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-111A	non-Rad	Silver	7440-22-4	30	1	29	3	ug/L	0.039	7.0	0.050	0.050	0	0.050	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-111A	non-Rad	Strontium	7440-24-6	30	30	0	100	ug/L	--	--	260	327	0.058	300	95% Student's-t UCL	--
199-K-111A	non-Rad	Thallium	7440-28-0	9	1	8	11	ug/L	0.014	0.90	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-111A	non-Rad	Tin	7440-31-5	9	1	8	11	ug/L	0.68	1.3	5.7	5.7	0	5.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-111A	non-Rad	Uranium	7440-61-1	9	9	0	100	ug/L	--	--	3.7	5.1	0.11	4.4	95% Student's-t UCL	--
199-K-111A	non-Rad	Vanadium	7440-62-2	30	24	6	80	ug/L	4.4	17	8.5	19	0.23	13	95% KM (t) UCL	--
199-K-111A	non-Rad	Zinc	7440-66-6	30	5	25	17	ug/L	3.3	9.3	4.0	13	0.37	5.5	95% KM (t) UCL	--
199-K-111A	Rad	Carbon-14	14762-75-5	15	15	0	100	pCi/L	--	--	108	297	0.32	230	95% Student's-t UCL	--
199-K-111A	Rad	Strontium-90	10098-97-2	15	3	12	20	pCi/L	0.49	2.0	1.3	2.1	0.25	1.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-111A	Rad	Technetium-99	14133-76-7	16	4	12	25	pCi/L	5.9	11	16	45	0.45	17	95% KM (t) UCL	--
199-K-111A	Rad	Tritium	10028-17-8	34	34	0	100	pCi/L	--	--	15,000	379,000	1.5	131,278	95% Chebyshev (Mean, Sd) UCL	--
199-K-113A	non-Rad	Aluminum	7429-90-5	11	2	9	18	ug/L	10	20	32	110	0.78	75	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-113A	non-Rad	Antimony	7440-36-0	11	1	10	9	ug/L	0.084	1.7	0.13	0.13	0	0.13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-113A	non-Rad	Arsenic	7440-38-2	11	9	2	82	ug/L	1.2	1.2	0.84	1.7	0.27	1.4	95% KM (t) UCL	--
199-K-113A	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	11	17	0.13	15	95% Student's-t UCL	--
199-K-113A	non-Rad	Boron	7440-42-8	8	2	6	25	ug/L	4.0	10	8.0	21	0.62	19	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-113A	non-Rad	Chromium	7440-47-3	13	10	3	77	ug/L	1.1	14	0.69	10	0.75	4.6	95% KM (t) UCL	--
199-K-113A	non-Rad	Copper	7440-50-8	11	11	0	100	ug/L	--	--	1.0	4.4	0.48	2.9	95% Student's-t UCL	--
199-K-113A	non-Rad	Fluoride	16984-48-8	13	8	5	62	ug/L	46	88	54	149	0.33	92	95% KM (t) UCL	--
199-K-113A	non-Rad	Hexavalent Chromium	18540-29-9	13	5	8	38	ug/L	1.5	8.0	2.0	9.3	0.75	3.8	95% KM (t) UCL	--
199-K-113A	non-Rad	Iron	7439-89-6	7	1	6	14	ug/L	13	38	31	31	0	31	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-113A	non-Rad	Molybdenum	7439-98-7	11	6	5	55	ug/L	1.0	1.0	0.32	1.0	0.44	0.64	95% KM (t) UCL	--
199-K-113A	non-Rad	Nickel	7440-02-0	9	3	6	33	ug/L	0.20	5.0	0.66	1.2	0.29	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-113A	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	359	4,070	0.80	1,882	95% Student's-t UCL	--
199-K-113A	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	9.9	131	146	158	0.056	68	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-113A	non-Rad	Selenium	7782-49-2	11	1	10	9	ug/L	0.66	2.0	2.6	2.6	0	2.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-113A	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	99	152	0.14	124	95% Modified-t UCL	--
199-K-113A	non-Rad	Tin	7440-31-5	11	4	7	36	ug/L	0.10	1.3	0.11	1.6	0.61	0.84	95% KM (t) UCL	--
199-K-113A	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	0.28	27	2.4	27	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev (Mean, Sd) UCLs also exceed maximum concentration.
199-K-113A	non-Rad	Vanadium	7440-62-2	8	3	5	38	ug/L	4.4	17	2.5	3.7	0.21	3.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-113A	non-Rad	Zinc	7440-66-6	9	5	4	56	ug/L	9.1	9.3	4.0	14	0.54	8.6	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-113A	Rad	Carbon-14	14762-75-5	7	1	6	14	pCi/L	3.9	56	25	25	0	25	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon-14 was not processed!
199-K-113A	Rad	Strontium-90	10098-97-2	13	13	0	100	pCi/L	--	--	2.5	8.9	0.30	6.0	95% Student's-t UCL	--
199-K-113A	Rad	Tritium	10028-17-8	7	1	6	14	pCi/L	280	519	840	840	0	840	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
199-K-114A	non-Rad	Aluminum	7429-90-5	10	2	8	20	ug/L	10	20	11	35	0.71	27	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-114A	non-Rad	Arsenic	7440-38-2	10	3	7	30	ug/L	0.40	1.7	0.44	0.93	0.38	0.83	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-114A	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	9.3	15	0.14	12	95% Student's-t UCL	--
199-K-114A	non-Rad	Boron	7440-42-8	7	3	4	43	ug/L	4.0	15	4.1	13	0.64	10	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-114A	non-Rad	Chromium	7440-47-3	13	4	9	31	ug/L	2.0	14	1.2	3.6	0.63	2.6	95% KM (Chebyshev) UCL	--
199-K-114A	non-Rad	Copper	7440-50-8	10	10	0	100	ug/L	--	--	1.9	4.9	0.33	3.8	95% Student's-t UCL	--
199-K-114A	non-Rad	Fluoride	16984-48-8	11	4	7	36	ug/L	46	88	56	110	0.26	75	95% KM (t) UCL	--
199-K-114A	non-Rad	Hexavalent Chromium	18540-29-9	14	3	11	21	ug/L	1.5	8.0	2.2	2.6	0.094	2.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-114A	non-Rad	Molybdenum	7439-98-7	10	8	2	80	ug/L	0.10	1.0	0.25	0.43	0.20	0.35	95% KM (t) UCL	--
199-K-114A	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	251	1,810	0.63	992	95% Student's-t UCL	--
199-K-114A	non-Rad	Nitrite	14797-65-0	11	1	10	9	ug/L	9.9	131	131	131	0	131	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-114A	non-Rad	Silver	7440-22-4	13	1	12	8	ug/L	0.040	7.0	0.23	0.23	0	0.23	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-114A	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	72	112	0.13	103	95% Student's-t UCL	--
199-K-114A	non-Rad	Uranium	7440-61-1	6	3	3	50	ug/L	0.067	0.10	0.095	0.12	0.12	0.11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-114A	non-Rad	Vanadium	7440-62-2	8	5	3	63	ug/L	8.0	17	1.4	2.7	0.29	2.3	95% KM (t) UCL	--
199-K-114A	non-Rad	Zinc	7440-66-6	9	7	2	78	ug/L	4.0	4.0	4.4	11	0.37	8.9	95% KM (t) UCL	--
199-K-114A	Rad	Strontium-90	10098-97-2	6	6	0	100	pCi/L	--	--	3.2	9.4	0.43	9.2	95% Student's-t UCL	--
199-K-116A	non-Rad	Aluminum	7429-90-5	12	1	11	8	ug/L	10	20	180	180	0	180	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-K-116A	non-Rad	Arsenic	7440-38-2	11	11	0	100	ug/L	--	--	2.7	4.3	0.12	3.8	95% Student's-t UCL	--
199-K-116A	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	17	31	0.18	26	95% Student's-t UCL	--
199-K-116A	non-Rad	Boron	7440-42-8	9	3	6	33	ug/L	10	19	5.4	7.1	0.14	7.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-116A	non-Rad	Chromium	7440-47-3	14	12	2	86	ug/L	13	14	4.1	11	0.41	8.3	95% KM Adjusted Gamma UCL	--
199-K-116A	non-Rad	Copper	7440-50-8	11	11	0	100	ug/L	--	--	2.1	8.8	0.42	5.4	95% Student's-t UCL	--
199-K-116A	non-Rad	Fluoride	16984-48-8	12	9	3	75	ug/L	60	88	72	170	0.28	136	95% KM (t) UCL	--
199-K-116A	non-Rad	Hexavalent Chromium	18540-29-9	14	12	2	86	ug/L	3.7	8.0	2.5	11	0.40	7.2	95% KM (t) UCL	--
199-K-116A	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	4.0	4.0	0	4.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-116A	non-Rad	Molybdenum	7439-98-7	12	11	1	92	ug/L	4.0	4.0	2.3	3.4	0.13	2.9	95% KM (t) UCL	--
199-K-116A	non-Rad	Nickel	7440-02-0	10	1	9	10	ug/L	0.20	5.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-K-116A	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	4,030	14,600	0.40	11,534	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-116A	non-Rad	Nitrite	14797-65-0	12	2	10	17	ug/L	9.9	131	127	131	0.022	68	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-116A	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	162	316	0.22	255	95% Student's-t UCL	--
199-K-116A	non-Rad	Tin	7440-31-5	12	1	11	8	ug/L	0.10	39	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-116A	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	1.9	3.5	0.19	3.2	95% Student's-t UCL	--
199-K-116A	non-Rad	Vanadium	7440-62-2	9	7	2	78	ug/L	12	17	8.7	10	0.046	9.7	95% KM (t) UCL	--
199-K-116A	non-Rad	Zinc	7440-66-6	10	8	2	80	ug/L	3.5	4.0	4.2	16	0.47	12	95% KM (t) UCL	--
199-K-116A	Rad	Carbon-14	14762-75-5	7	4	3	57	pCi/L	8.2	54	18	48	0.50	34	95% KM (t) UCL	--
199-K-116A	Rad	Strontium-90	10098-97-2	7	6	1	86	pCi/L	1.5	1.5	1.7	4.2	0.37	3.7	95% KM (t) UCL	--
199-K-116A	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	1,420	4,380	0.45	3,327	95% Student's-t UCL	--
199-K-117A	non-Rad	Aluminum	7429-90-5	28	7	21	25	ug/L	5.0	20	15	181	1.3	17	95% KM H-UCL	--
199-K-117A	non-Rad	Antimony	7440-36-0	28	3	25	11	ug/L	0.30	2.0	0.10	0.17	0.26	0.17	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-117A	non-Rad	Arsenic	7440-38-2	28	16	12	57	ug/L	0.80	4.0	0.55	1.9	0.36	0.97	95% KM (t) UCL	--
199-K-117A	non-Rad	Barium	7440-39-3	28	28	0	100	ug/L	--	--	16	29	0.13	21	95% Student's-t UCL	--
199-K-117A	non-Rad	Beryllium	7440-41-7	28	2	26	7	ug/L	0.10	0.35	0.30	0.49	0.34	0.16	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-117A	non-Rad	Boron	7440-42-8	14	5	9	36	ug/L	4.0	25	5.5	30	0.77	18	95% GROS Adjusted Gamma UCL	--
199-K-117A	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-117A	non-Rad	Cadmium	7440-43-9	28	2	26	7	ug/L	0.050	0.20	0.12	0.13	0.057	0.070	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-117A	non-Rad	Chromium	7440-47-3	28	27	1	96	ug/L	4.0	4.0	1.1	9.4	0.50	4.6	95% KM Adjusted Gamma UCL	--
199-K-117A	non-Rad	Cobalt	7440-48-4	28	18	10	64	ug/L	0.10	0.90	0.10	0.42	0.44	0.21	95% KM (t) UCL	--
199-K-117A	non-Rad	Copper	7440-50-8	28	15	13	54	ug/L	0.20	1.1	0.16	4.0	1.2	1.0	95% KM Adjusted Gamma UCL	--
199-K-117A	non-Rad	Fluoride	16984-48-8	26	11	15	42	ug/L	46	88	44	110	0.20	71	95% KM (t) UCL	--
199-K-117A	non-Rad	Hexavalent Chromium	18540-29-9	26	3	23	12	ug/L	1.5	8.0	1.7	2.6	0.24	1.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-117A	non-Rad	Iron	7439-89-6	15	7	8	47	ug/L	13	38	24	110	0.69	84	95% GROS Adjusted Gamma UCL	--
199-K-117A	non-Rad	Manganese	7439-96-5	17	11	6	65	ug/L	0.88	4.0	0.32	4.3	1.0	1.4	95% KM (t) UCL	--
199-K-117A	non-Rad	Molybdenum	7439-98-7	27	19	8	70	ug/L	1.0	2.0	0.20	1.6	0.77	0.59	95% KM H-UCL	--
199-K-117A	non-Rad	Nickel	7440-02-0	17	10	7	59	ug/L	0.20	13	0.92	5.3	0.66	2.7	95% KM (t) UCL	--
199-K-117A	non-Rad	Nitrate	14797-55-8	26	26	0	100	ug/L	--	--	261	6,370	0.79	3,579	95% Adjusted Gamma UCL	--
199-K-117A	non-Rad	Nitrite	14797-65-0	26	3	23	12	ug/L	9.9	131	148	170	0.078	46	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-117A	non-Rad	Silver	7440-22-4	28	1	27	4	ug/L	0.039	0.90	0.070	0.070	0	0.070	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-117A	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	95	204	0.18	142	95% Student's-t UCL	--
199-K-117A	non-Rad	Thallium	7440-28-0	28	1	27	4	ug/L	0.014	0.90	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-117A	non-Rad	Tin	7440-31-5	27	8	19	30	ug/L	0.10	1.3	0.13	8.4	0.98	1.6	95% KM (t) UCL	--
199-K-117A	non-Rad	Uranium	7440-61-1	16	15	1	94	ug/L	0.23	0.23	0.31	2.0	0.66	0.73	95% KM H-UCL	--
199-K-117A	non-Rad	Vanadium	7440-62-2	15	6	9	40	ug/L	4.1	15	1.7	6.3	0.52	3.5	95% KM (t) UCL	--
199-K-117A	non-Rad	Zinc	7440-66-6	17	1	16	6	ug/L	1.6	9.3	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-117A	Rad	Strontium-90	10098-97-2	15	11	4	73	pCi/L	1.6	2.0	1.3	4.0	0.37	2.4	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-117A	Rad	Tritium	10028-17-8	15	2	13	13	pCi/L	150	421	390	450	0.10	248	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-120A	non-Rad	Arsenic	7440-38-2	12	12	0	100	ug/L	--	--	2.4	3.7	0.14	3.1	95% Student's-t UCL	--
199-K-120A	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	27	33	0.067	31	95% Student's-t UCL	--
199-K-120A	non-Rad	Boron	7440-42-8	7	4	3	57	ug/L	15	15	6.8	21	0.56	14	95% KM (t) UCL	--
199-K-120A	non-Rad	Chromium	7440-47-3	14	12	2	86	ug/L	3.0	13	2.3	18	0.71	8.5	95% KM Adjusted Gamma UCL	--
199-K-120A	non-Rad	Copper	7440-50-8	12	11	1	92	ug/L	0.20	0.20	0.65	44	1.3	44	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-120A	non-Rad	Fluoride	16984-48-8	13	7	6	54	ug/L	46	88	96	160	0.22	116	95% KM (t) UCL	--
199-K-120A	non-Rad	Hexavalent Chromium	18540-29-9	14	12	2	86	ug/L	1.5	3.7	1.8	6.5	0.40	4.8	95% KM (t) UCL	--
199-K-120A	non-Rad	Molybdenum	7439-98-7	12	11	1	92	ug/L	0.10	0.10	1.6	1.9	0.055	1.9	95% KM (t) UCL	--
199-K-120A	non-Rad	Nickel	7440-02-0	9	2	7	22	ug/L	0.20	4.0	1.5	6.1	0.87	4.8	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-120A	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	12,400	15,100	0.061	14,361	95% Student's-t UCL	--
199-K-120A	non-Rad	Nitrite	14797-65-0	13	1	12	8	ug/L	9.9	131	128	128	0	128	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-120A	non-Rad	Selenium	7782-49-2	12	2	10	17	ug/L	1.0	2.0	0.71	0.72	0.0040	0.72	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-120A	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	243	293	0.054	276	95% Student's-t UCL	--
199-K-120A	non-Rad	Thallium	7440-28-0	12	1	11	8	ug/L	0.050	0.60	0.64	0.64	0	0.64	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-120A	non-Rad	Tin	7440-31-5	12	2	10	17	ug/L	0.050	1.0	0.12	0.72	1.0	0.72	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-120A	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	2.2	2.5	0.052	2.4	95% Student's-t UCL	--
199-K-120A	non-Rad	Vanadium	7440-62-2	9	7	2	78	ug/L	12	17	9.2	9.6	0.017	9.6	95% KM (t) UCL	--
199-K-120A	non-Rad	Zinc	7440-66-6	9	8	1	89	ug/L	4.0	4.0	7.8	24	0.39	19	95% KM (t) UCL	--
199-K-120A	Rad	Carbon-14	14762-75-5	8	2	6	25	pCi/L	7.9	55	14	17	0.12	15	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-120A	Rad	Strontium-90	10098-97-2	8	3	5	38	pCi/L	0.95	2.1	1.4	2.2	0.24	1.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-120A	Rad	Tritium	10028-17-8	13	13	0	100	pCi/L	--	--	5,600	7,900	0.098	6,664	95% Adjusted Gamma UCL	--
199-K-125A	non-Rad	Aluminum	7429-90-5	11	4	7	36	ug/L	10	15	11	24	0.31	16	95% KM (t) UCL	--
199-K-125A	non-Rad	Arsenic	7440-38-2	11	11	0	100	ug/L	--	--	3.2	5.2	0.15	4.3	95% Student's-t UCL	--
199-K-125A	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	32	43	0.083	38	95% Student's-t UCL	--
199-K-125A	non-Rad	Boron	7440-42-8	8	5	3	63	ug/L	15	15	6.8	20	0.54	13	95% KM (t) UCL	--
199-K-125A	non-Rad	Chromium	7440-47-3	14	10	4	71	ug/L	3.0	14	3.3	16	0.54	7.6	95% KM (t) UCL	--
199-K-125A	non-Rad	Cobalt	7440-48-4	11	3	8	27	ug/L	0.10	0.22	0.12	0.20	0.23	0.14	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-125A	non-Rad	Copper	7440-50-8	11	5	6	45	ug/L	0.20	0.45	0.41	0.76	0.21	0.56	95% KM (t) UCL	--
199-K-125A	non-Rad	Fluoride	16984-48-8	12	11	1	92	ug/L	72	72	55	193	0.35	158	95% KM (t) UCL	--
199-K-125A	non-Rad	Hexavalent Chromium	18540-29-9	17	8	9	47	ug/L	1.5	9.7	2.0	5.8	0.40	3.3	95% KM (t) UCL	--
199-K-125A	non-Rad	Iron	7439-89-6	8	8	0	100	ug/L	--	--	42	2,030	1.6	1,504	95% Adjusted Gamma UCL	--
199-K-125A	non-Rad	Manganese	7439-96-5	10	8	2	80	ug/L	4.0	4.1	1.9	50	1.1	23	95% KM (t) UCL	--
199-K-125A	non-Rad	Molybdenum	7439-98-7	11	11	0	100	ug/L	--	--	2.6	3.0	0.055	2.8	95% Student's-t UCL	--
199-K-125A	non-Rad	Nickel	7440-02-0	10	7	3	70	ug/L	0.50	4.0	0.50	12	1.2	4.8	95% KM (t) UCL	--
199-K-125A	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	11,900	14,900	0.061	13,848	95% Student's-t UCL	--
199-K-125A	non-Rad	Nitrite	14797-65-0	12	1	11	8	ug/L	9.9	131	139	139	0	139	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-125A	non-Rad	Selenium	7782-49-2	11	1	10	9	ug/L	1.5	2.0	2.0	2.0	0	2.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-125A	non-Rad	Silver	7440-22-4	14	2	12	14	ug/L	0.040	7.0	0.14	6.0	1.3	6.0	Maximum Detect	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-125A	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	113	321	0.22	315	95% Student's-t UCL	--
199-K-125A	non-Rad	Thallium	7440-28-0	11	1	10	9	ug/L	0.10	0.60	0.58	0.58	0	0.58	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-125A	non-Rad	Tin	7440-31-5	11	2	9	18	ug/L	0.10	1.0	0.14	0.63	0.90	0.63	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-125A	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	2.5	3.3	0.083	3.1	95% Student's-t UCL	--
199-K-125A	non-Rad	Vanadium	7440-62-2	9	8	1	89	ug/L	17	17	10	16	0.16	14	95% KM (t) UCL	--
199-K-125A	non-Rad	Zinc	7440-66-6	10	6	4	60	ug/L	3.5	4.1	5.5	50	0.90	27	95% KM (t) UCL	--
199-K-125A	Rad	Carbon-14	14762-75-5	7	5	2	71	pCi/L	8.2	54	10	42	0.45	35	95% KM (t) UCL	--
199-K-125A	Rad	Strontium-90	10098-97-2	7	1	6	14	pCi/L	0.77	2.0	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-125A	Rad	Tritium	10028-17-8	9	9	0	100	pCi/L	--	--	1,880	7,900	0.55	5,952	95% Student's-t UCL	--
199-K-132	non-Rad	2-Butanol	78-92-2	1	1	0	100	ug/L	--	--	21	21	0	21	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-132	non-Rad	2-Butanone	78-93-3	22	1	21	5	ug/L	0.47	2.0	0.82	0.82	0	0.82	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-132	non-Rad	2-Propanol	67-63-0	3	3	0	100	ug/L	--	--	11	80	0.80	80	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-132	non-Rad	Acetone	67-64-1	22	3	19	14	ug/L	0.34	5.0	0.95	4.1	0.71	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-132	non-Rad	Aluminum	7429-90-5	4	2	2	50	ug/L	17	20	18	21	0.12	21	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-132	non-Rad	Antimony	7440-36-0	4	1	3	25	ug/L	1.7	2.0	0.34	0.34	0	0.34	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-132	non-Rad	Arsenic	7440-38-2	4	3	1	75	ug/L	4.0	4.0	1.7	2.4	0.17	2.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-132	non-Rad	Barium	7440-39-3	17	17	0	100	ug/L	--	--	21	46	0.23	32	95% Student's-t UCL	--
199-K-132	non-Rad	Boron	7440-42-8	4	3	1	75	ug/L	25	25	10	15	0.20	15	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-132	non-Rad	Chloroform	67-66-3	22	15	7	68	ug/L	1.0	1.0	0.30	0.47	0.14	0.40	95% KM (t) UCL	--
199-K-132	non-Rad	Chromium	7440-47-3	18	18	0	100	ug/L	--	--	11	26	0.23	19	95% Student's-t UCL	--
199-K-132	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	0.52	15	1.0	15	95% Student's-t UCL	--
199-K-132	non-Rad	Cyanide	57-12-5	4	1	3	25	ug/L	3.1	3.1	4.2	4.2	0	4.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!
199-K-132	non-Rad	Fluoride	16984-48-8	29	27	2	93	ug/L	60	88	83	180	0.22	157	95% KM H-UCL	--
199-K-132	non-Rad	Hexavalent Chromium	18540-29-9	33	33	0	100	ug/L	--	--	8.0	24	0.24	17	95% Student's-t UCL	--
199-K-132	non-Rad	Iron	7439-89-6	17	3	14	18	ug/L	13	30	18	80	0.77	27	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-132	non-Rad	Manganese	7439-96-5	17	2	15	12	ug/L	0.70	6.0	0.52	5.0	1.1	3.2	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-132	non-Rad	Methylene chloride	75-09-2	22	1	21	5	ug/L	0.27	1.0	14	14	0	14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-132	non-Rad	Molybdenum	7439-98-7	4	3	1	75	ug/L	2.0	2.0	1.1	1.9	0.29	1.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-132	non-Rad	Nickel	7440-02-0	17	3	14	18	ug/L	0.80	67	0.85	8.0	0.74	3.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-132	non-Rad	Nitrate	14797-55-8	29	29	0	100	ug/L	--	--	29,700	75,300	0.26	46,788	95% Student's-t UCL	--
199-K-132	non-Rad	Nitrite	14797-65-0	29	5	24	17	ug/L	9.9	131	184	286	0.17	76	95% KM (t) UCL	--
199-K-132	non-Rad	Selenium	7782-49-2	4	1	3	25	ug/L	1.6	2.0	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-132	non-Rad	Strontium	7440-24-6	12	12	0	100	ug/L	--	--	240	419	0.20	318	95% Modified-t UCL	--
199-K-132	non-Rad	Trichloroethene	79-01-6	22	21	1	95	ug/L	1.0	1.0	1.5	6.4	0.47	4.5	95% GROS Adjusted Gamma UCL	--
199-K-132	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	1.4	4.5	0.45	4.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-132	non-Rad	Vanadium	7440-62-2	17	6	11	35	ug/L	4.1	17	2.4	8.5	0.53	5.3	95% KM (t) UCL	--
199-K-132	non-Rad	Zinc	7440-66-6	17	11	6	65	ug/L	3.0	7.5	4.3	52	0.94	25	95% GROS Adjusted Gamma UCL	--
199-K-132	Rad	Carbon-14	14762-75-5	30	30	0	100	pCi/L	--	--	1,570	10,900	0.57	4,270	95% Modified-t UCL	--
199-K-132	Rad	Strontium-90	10098-97-2	11	1	10	9	pCi/L	0.66	2.0	2.2	2.2	0	2.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-132	Rad	Technetium-99	14133-76-7	12	11	1	92	pCi/L	9.4	9.4	13	35	0.22	28	95% KM (t) UCL	--
199-K-132	Rad	Tritium	10028-17-8	23	23	0	100	pCi/L	--	--	1,250	12,900	0.83	4,956	95% Adjusted Gamma UCL	--
199-K-132	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	1.3	1.3	0	1.3	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-132	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	1.3	1.3	0	1.3	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-137	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.5	2.5	0	2.5	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-137	non-Rad	Barium	7440-39-3	24	24	0	100	ug/L	--	--	39	56	0.11	47	95% Student's-t UCL	--
199-K-137	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	0.30	0.30	0.31	0.53	0.37	0.53	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-137	non-Rad	Chromium	7440-47-3	22	22	0	100	ug/L	--	--	15	133	0.77	51	95% Adjusted Gamma UCL	--
199-K-137	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	2.2	5.1	0.56	5.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-137	non-Rad	Fluoride	16984-48-8	21	20	1	95	ug/L	60	60	110	280	0.20	189	95% KM (t) UCL	--
199-K-137	non-Rad	Hexavalent Chromium	18540-29-9	30	30	0	100	ug/L	--	--	13	145	0.86	59	95% Chebyshev (Mean, Sd) UCL	--
199-K-137	non-Rad	Iron	7439-89-6	24	3	21	13	ug/L	13	50	23	162	1.00	35	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-137	non-Rad	Manganese	7439-96-5	24	5	19	21	ug/L	1.0	6.0	1.1	15	0.66	4.0	95% KM (t) UCL	--
199-K-137	non-Rad	Mercury	7439-97-6	9	1	8	11	ug/L	0.060	0.10	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-K-137	non-Rad	Nickel	7440-02-0	24	2	22	8	ug/L	1.5	13	1.4	9.0	1.0	3.7	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-137	non-Rad	Nitrate	14797-55-8	21	21	0	100	ug/L	--	--	22,100	30,800	0.10	27,000	95% Student's-t UCL	--
199-K-137	non-Rad	Nitrite	14797-65-0	21	6	15	29	ug/L	9.9	131	169	318	0.28	116	95% KM (t) UCL	--
199-K-137	non-Rad	Silver	7440-22-4	24	1	23	4	ug/L	0.99	7.0	7.0	7.0	0	7.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-137	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	245	349	0.11	301	95% Student's-t UCL	--
199-K-137	non-Rad	Trichloroethene	79-01-6	3	3	0	100	ug/L	--	--	3.6	4.4	0.10	4.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-137	non-Rad	Vanadium	7440-62-2	24	23	1	96	ug/L	10	10	7.3	19	0.29	12	95% KM Student's t	--
199-K-137	non-Rad	Zinc	7440-66-6	24	15	9	63	ug/L	3.3	20	5.5	314	2.3	27	95% KM H-UCL	--
199-K-137	Rad	Carbon-14	14762-75-5	20	20	0	100	pCi/L	--	--	492	1,390	0.27	966	95% Student's-t UCL	--
199-K-137	Rad	Technetium-99	14133-76-7	14	14	0	100	pCi/L	--	--	15	53	0.40	37	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-137	Rad	Tritium	10028-17-8	18	18	0	100	pCi/L	--	--	838	2,000	0.21	1,462	95% Student's-t UCL	--
199-K-138	non-Rad	2-Butanone	78-93-3	17	1	16	6	ug/L	0.47	3.0	0.70	0.70	0	0.70	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-138	non-Rad	2-Propanol	67-63-0	2	2	0	100	ug/L	--	--	28	130	0.91	130	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-138	non-Rad	Acetone	67-64-1	17	3	14	18	ug/L	0.34	5.0	0.65	2.3	0.53	1.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-138	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-138	non-Rad	Barium	7440-39-3	18	18	0	100	ug/L	--	--	31	53	0.17	44	95% Student's-t UCL	--
199-K-138	non-Rad	Chloroform	67-66-3	17	10	7	59	ug/L	1.0	1.0	0.26	0.72	0.38	0.43	95% KM (BCA) UCL	--
199-K-138	non-Rad	Chromium	7440-47-3	18	18	0	100	ug/L	--	--	8.1	63	0.77	32	95% Chebyshev (Mean, Sd) UCL	--
199-K-138	non-Rad	Fluoride	16984-48-8	16	15	1	94	ug/L	60	60	93	238	0.24	194	95% KM (t) UCL	--
199-K-138	non-Rad	Hexavalent Chromium	18540-29-9	22	22	0	100	ug/L	--	--	6.0	24	0.39	15	95% Student's-t UCL	--
199-K-138	non-Rad	Iron	7439-89-6	18	7	11	39	ug/L	1.3	30	16	215	0.99	70	95% KM (t) UCL	--
199-K-138	non-Rad	Manganese	7439-96-5	18	3	15	17	ug/L	0.70	6.0	0.43	3.8	0.79	1.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-138	non-Rad	Nickel	7440-02-0	18	7	11	39	ug/L	1.3	67	4.2	18	0.69	8.7	95% KM (Chebyshev) UCL	--
199-K-138	non-Rad	Nitrate	14797-55-8	16	16	0	100	ug/L	--	--	20,100	27,900	0.092	25,228	95% Student's-t UCL	--
199-K-138	non-Rad	Nitrite	14797-65-0	16	1	15	6	ug/L	9.9	131	182	182	0	182	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-138	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	215	317	0.12	289	95% Student's-t UCL	--
199-K-138	non-Rad	Trichloroethene	79-01-6	17	17	0	100	ug/L	--	--	2.7	5.6	0.22	4.2	95% Student's-t UCL	--
199-K-138	non-Rad	Vanadium	7440-62-2	18	13	5	72	ug/L	4.4	17	5.1	22	0.45	10	95% KM (BCA) UCL	--
199-K-138	non-Rad	Zinc	7440-66-6	18	13	5	72	ug/L	4.5	6.0	7.0	189	1.3	53	95% KM H-UCL	--
199-K-138	Rad	Carbon-14	14762-75-5	10	10	0	100	pCi/L	--	--	396	582	0.14	546	95% Student's-t UCL	--
199-K-138	Rad	Strontium-90	10098-97-2	10	2	8	20	pCi/L	0.59	2.0	1.5	1.8	0.13	1.2	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-138	Rad	Technetium-99	14133-76-7	7	7	0	100	pCi/L	--	--	26	49	0.25	42	95% Student's-t UCL	--
199-K-138	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	870	1,520	0.18	1,388	95% Student's-t UCL	--
199-K-139	non-Rad	Acetone	67-64-1	17	3	14	18	ug/L	0.34	5.0	0.80	4.5	0.65	1.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-139	non-Rad	Barium	7440-39-3	19	19	0	100	ug/L	--	--	26	55	0.17	41	95% Student's-t UCL	--
199-K-139	non-Rad	Chloroform	67-66-3	17	10	7	59	ug/L	1.0	1.0	0.35	0.45	0.094	0.41	95% KM (t) UCL	--
199-K-139	non-Rad	Chromium	7440-47-3	19	19	0	100	ug/L	--	--	8.4	125	1.3	27	95% H-UCL	--
199-K-139	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-139	non-Rad	Fluoride	16984-48-8	17	16	1	94	ug/L	60	60	124	282	0.21	223	95% KM (t) UCL	--
199-K-139	non-Rad	Hexavalent Chromium	18540-29-9	23	23	0	100	ug/L	--	--	5.3	117	1.3	52	95% Chebyshev (Mean, Sd) UCL	--
199-K-139	non-Rad	Iron	7439-89-6	19	3	16	16	ug/L	18	38	22	31	0.18	22	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-139	non-Rad	Manganese	7439-96-5	19	4	15	21	ug/L	1.0	6.0	0.44	3.9	0.58	2.0	95% KM (t) UCL	--
199-K-139	non-Rad	Nickel	7440-02-0	19	4	15	21	ug/L	1.3	67	2.2	7.0	0.61	2.7	95% KM (t) UCL	--
199-K-139	non-Rad	Nitrate	14797-55-8	17	17	0	100	ug/L	--	--	23,900	35,000	0.13	31,213	95% Student's-t UCL	--
199-K-139	non-Rad	Nitrite	14797-65-0	17	1	16	6	ug/L	9.9	131	180	180	0	180	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-139	non-Rad	Silver	7440-22-4	19	1	18	5	ug/L	0.93	7.0	10	10	0	10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-139	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	211	313	0.11	281	95% Student's-t UCL	--
199-K-139	non-Rad	Trichloroethene	79-01-6	17	17	0	100	ug/L	--	--	3.5	6.3	0.13	5.0	95% Student's-t UCL	--
199-K-139	non-Rad	Vanadium	7440-62-2	19	14	5	74	ug/L	5.0	17	4.2	11	0.25	7.2	95% KM (t) UCL	--
199-K-139	non-Rad	Zinc	7440-66-6	19	12	7	63	ug/L	3.3	6.0	6.6	41	0.52	17	95% KM (t) UCL	--
199-K-139	Rad	Carbon-14	14762-75-5	11	11	0	100	pCi/L	--	--	347	2,370	0.63	1,296	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-139	Rad	Strontium-90	10098-97-2	12	12	0	100	pCi/L	--	--	4.7	22	0.56	14	95% Student's-t UCL	--
199-K-139	Rad	Technetium-99	14133-76-7	8	7	1	88	pCi/L	10	10	13	57	0.49	36	95% KM (t) UCL	--
199-K-139	Rad	Tritium	10028-17-8	12	12	0	100	pCi/L	--	--	804	4,000	0.55	2,617	95% Student's-t UCL	--
199-K-140	non-Rad	2-Butanol	78-92-2	1	1	0	100	ug/L	--	--	27	27	0	27	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-140	non-Rad	2-Butanone	78-93-3	14	1	13	7	ug/L	0.47	3.0	0.86	0.86	0	0.86	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-140	non-Rad	2-Propanol	67-63-0	4	4	0	100	ug/L	--	--	6.5	110	1.1	97	95% Student's-t UCL	--
199-K-140	non-Rad	Acetone	67-64-1	14	2	12	14	ug/L	0.34	5.0	0.58	5.2	1.1	3.7	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-140	non-Rad	Aluminum	7429-90-5	11	3	8	27	ug/L	10	20	21	45	0.44	22	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-140	non-Rad	Antimony	7440-36-0	11	1	10	9	ug/L	0.60	2.0	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-140	non-Rad	Arsenic	7440-38-2	11	9	2	82	ug/L	1.7	4.0	1.0	4.4	0.35	3.2	95% KM (t) UCL	--
199-K-140	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	37	59	0.11	53	95% Student's-t UCL	--
199-K-140	non-Rad	Boron	7440-42-8	7	6	1	86	ug/L	25	25	7.2	15	0.27	13	95% KM (t) UCL	--
199-K-140	non-Rad	Cadmium	7440-43-9	11	1	10	9	ug/L	0.099	0.20	0.17	0.17	0	0.17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-140	non-Rad	Chloroform	67-66-3	14	9	5	64	ug/L	1.0	1.0	0.25	0.51	0.26	0.40	95% KM (t) UCL	--
199-K-140	non-Rad	Chromium	7440-47-3	15	15	0	100	ug/L	--	--	8.2	764	3.1	281	95% Chebyshev (Mean, Sd) UCL	--
199-K-140	non-Rad	Copper	7440-50-8	11	9	2	82	ug/L	0.20	0.20	0.39	32	1.5	32	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev (Mean, Sd) UCLs were not calculated.
199-K-140	non-Rad	Fluoride	16984-48-8	13	13	0	100	ug/L	--	--	67	310	0.40	171	95% H-UCL	--
199-K-140	non-Rad	Hexavalent Chromium	18540-29-9	24	24	0	100	ug/L	--	--	2.0	25	0.42	14	95% Student's-t UCL	--
199-K-140	non-Rad	Iron	7439-89-6	10	8	2	80	ug/L	13	30	17	159	0.80	83	95% KM (t) UCL	--
199-K-140	non-Rad	Manganese	7439-96-5	12	5	7	42	ug/L	0.20	4.0	0.40	4.2	0.80	1.8	95% KM (t) UCL	--
199-K-140	non-Rad	Methylene chloride	75-09-2	14	3	11	21	ug/L	0.27	1.6	1.5	3.7	0.42	1.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-140	non-Rad	Molybdenum	7439-98-7	11	6	5	55	ug/L	0.10	2.0	0.70	2.1	0.41	1.5	95% KM (t) UCL	--
199-K-140	non-Rad	Nickel	7440-02-0	12	6	6	50	ug/L	0.20	10	0.78	1.7	0.32	1.4	95% KM (t) UCL	--
199-K-140	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	23,000	27,000	0.047	25,795	95% Student's-t UCL	--
199-K-140	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	62	131	132	252	0.44	119	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-140	non-Rad	Selenium	7782-49-2	11	6	5	55	ug/L	1.5	2.0	0.75	2.3	0.46	1.6	95% KM (t) UCL	--
199-K-140	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	221	364	0.15	315	95% Student's-t UCL	--
199-K-140	non-Rad	Trichloroethene	79-01-6	14	13	1	93	ug/L	1.0	1.0	3.0	5.9	0.22	4.4	95% KM Adjusted Gamma UCL	--
199-K-140	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	1.2	2.2	0.24	1.9	95% Student's-t UCL	--
199-K-140	non-Rad	Vanadium	7440-62-2	11	8	3	73	ug/L	15	15	8.0	12	0.14	10	95% KM (t) UCL	--
199-K-140	non-Rad	Zinc	7440-66-6	12	7	5	58	ug/L	4.6	7.5	7.5	134	1.2	89	95% KM (Chebyshev) UCL	--
199-K-140	Rad	Carbon-14	14762-75-5	14	14	0	100	pCi/L	--	--	24	766	0.37	623	95% Student's-t UCL	--
199-K-140	Rad	Strontium-90	10098-97-2	14	1	13	7	pCi/L	0.56	1.8	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-140	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	1,290	1,760	0.14	1,713	95% Student's-t UCL	--
199-K-141	non-Rad	Arsenic	7440-38-2	7	7	0	100	ug/L	--	--	3.4	4.0	0.066	3.8	95% Student's-t UCL	--
199-K-141	non-Rad	Barium	7440-39-3	25	25	0	100	ug/L	--	--	27	35	0.061	31	95% Student's-t UCL	--
199-K-141	non-Rad	Boron	7440-42-8	5	4	1	80	ug/L	15	15	16	18	0.066	18	95% KM (t) UCL	--
199-K-141	non-Rad	Chromium	7440-47-3	25	25	0	100	ug/L	--	--	19	44	0.23	30	95% Adjusted Gamma UCL	--
199-K-141	non-Rad	Copper	7440-50-8	7	7	0	100	ug/L	--	--	0.68	20	0.93	20	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev (Mean, Sd) UCLs also exceed maximum concentration.
199-K-141	non-Rad	Fluoride	16984-48-8	22	19	3	86	ug/L	60	88	81	200	0.28	149	95% KM (t) UCL	--
199-K-141	non-Rad	Hexavalent Chromium	18540-29-9	24	23	1	96	ug/L	2.0	2.0	19	48	0.25	29	95% KM Adjusted Gamma UCL	--
199-K-141	non-Rad	Iron	7439-89-6	25	3	22	12	ug/L	13	38	28	34	0.12	20	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-141	non-Rad	Molybdenum	7439-98-7	5	5	0	100	ug/L	--	--	1.6	2.3	0.16	2.1	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-141	non-Rad	Nickel	7440-02-0	25	5	20	20	ug/L	0.50	13	0.64	6.0	0.66	2.0	95% KM (t) UCL	--
199-K-141	non-Rad	Nitrate	14797-55-8	22	22	0	100	ug/L	--	--	10,600	17,700	0.12	13,705	95% Student's-t UCL	--
199-K-141	non-Rad	Nitrite	14797-65-0	22	5	17	23	ug/L	9.9	131	152	417	0.43	110	95% KM (t) UCL	--
199-K-141	non-Rad	Selenium	7782-49-2	5	1	4	20	ug/L	1.5	1.5	2.8	2.8	0	2.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-141	non-Rad	Strontium	7440-24-6	25	25	0	100	ug/L	--	--	216	299	0.080	251	95% Modified-H UCL	--
199-K-141	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	3.0	3.3	0.037	3.2	95% Student's-t UCL	--
199-K-141	non-Rad	Vanadium	7440-62-2	25	19	6	76	ug/L	8.1	17	7.6	12	0.13	10	95% KM (t) UCL	--
199-K-141	non-Rad	Zinc	7440-66-6	25	17	8	68	ug/L	3.5	7.0	3.7	45	0.78	15	95% KM (t) UCL	--
199-K-141	Rad	Carbon-14	14762-75-5	28	28	0	100	pCi/L	--	--	89	314	0.28	249	95% Student's-t UCL	--
199-K-141	Rad	Cesium-137	10045-97-3	8	1	7	13	pCi/L	4.8	13	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-K-141	Rad	Strontium-90	10098-97-2	27	26	1	96	pCi/L	2.2	2.2	2.2	84	0.57	46	95% KM (t) UCL	--
199-K-141	Rad	Technetium-99	14133-76-7	28	13	15	46	pCi/L	6.5	46	6.6	19	0.36	9.7	95% KM Adjusted Gamma UCL	--
199-K-141	Rad	Tritium	10028-17-8	27	27	0	100	pCi/L	--	--	1,400	8,400	0.46	4,995	95% Student's-t UCL	--
199-K-142	non-Rad	Aluminum	7429-90-5	14	9	5	64	ug/L	10	15	10	100	0.74	90	95% GROS Adjusted Gamma UCL	--
199-K-142	non-Rad	Antimony	7440-36-0	14	2	12	14	ug/L	0.60	1.7	0.11	0.19	0.38	0.19	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-142	non-Rad	Arsenic	7440-38-2	14	13	1	93	ug/L	0.40	0.40	3.9	6.0	0.12	4.9	95% KM (t) UCL	--
199-K-142	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	5.1	29	0.24	24	95% Student's-t UCL	--
199-K-142	non-Rad	Boron	7440-42-8	8	3	5	38	ug/L	6.4	19	4.4	7.0	0.24	7.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-142	non-Rad	Bromodichloromethane	75-27-4	3	1	2	33	ug/L	0.082	1.0	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromodichloromethane was not processed!
199-K-142	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.95	0.95	0	0.95	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-142	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	1.0	1.0	0.91	1.2	0.19	1.2	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-142	non-Rad	Chromium	7440-47-3	15	12	3	80	ug/L	0.20	13	0.93	14	1.2	6.4	95% KM H-UCL	--
199-K-142	non-Rad	Cobalt	7440-48-4	14	4	10	29	ug/L	0.070	0.22	0.070	1.6	1.5	0.25	95% Hall's Bootstrap	--
199-K-142	non-Rad	Copper	7440-50-8	14	3	11	21	ug/L	0.20	1.1	0.39	9.1	1.2	2.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-142	non-Rad	Fluoride	16984-48-8	14	14	0	100	ug/L	--	--	142	273	0.21	237	95% Student's-t UCL	--
199-K-142	non-Rad	Hexavalent Chromium	18540-29-9	9	2	7	22	ug/L	1.5	9.7	3.3	13	0.84	10	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10). If data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-142	non-Rad	Iron	7439-89-6	8	6	2	75	ug/L	16	18	18	403	1.3	178	95% KM (t) UCL	--
199-K-142	non-Rad	Manganese	7439-96-5	10	5	5	50	ug/L	0.88	4.0	0.26	2.8	0.77	1.8	95% KM (t) UCL	--
199-K-142	non-Rad	Molybdenum	7439-98-7	13	13	0	100	ug/L	--	--	0.15	4.7	0.32	4.2	95% Student's-t UCL	--
199-K-142	non-Rad	Nickel	7440-02-0	10	3	7	30	ug/L	0.20	4.2	0.46	1.1	0.39	0.94	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-142	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	1,310	8,410	0.69	4,065	95% H-UCL	--
199-K-142	non-Rad	Nitrite	14797-65-0	14	1	13	7	ug/L	62	131	153	153	0	153	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-142	non-Rad	Selenium	7782-49-2	14	2	12	14	ug/L	0.60	2.0	0.68	1.7	0.61	1.4	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-142	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	135	183	0.096	169	95% Student's-t UCL	--
199-K-142	non-Rad	Thallium	7440-28-0	14	1	13	7	ug/L	0.014	0.55	0.66	0.66	0	0.66	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-142	non-Rad	Tin	7440-31-5	13	2	11	15	ug/L	0.10	1.3	0.15	0.45	0.71	0.44	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-142	non-Rad	Uranium	7440-61-1	10	10	0	100	ug/L	--	--	1.0	1.5	0.12	1.3	95% Student's-t UCL	--
199-K-142	non-Rad	Vanadium	7440-62-2	9	9	0	100	ug/L	--	--	9.1	33	0.37	22	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-142	non-Rad	Zinc	7440-66-6	10	1	9	10	ug/L	3.5	9.3	13	13	0	13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-142	Rad	Carbon-14	14762-75-5	16	16	0	100	pCi/L	--	--	139	276	0.20	222	95% Student's-t UCL	--
199-K-142	Rad	Selenium-79	15758-45-9	1	1	0	100	pCi/L	--	--	25	25	0	25	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium-79 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-142	Rad	Strontium-90	10098-97-2	16	1	15	6	pCi/L	0.59	2.7	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-142	Rad	Tritium	10028-17-8	16	3	13	19	pCi/L	99	330	220	325	0.19	228	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-142	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.74	0.74	0	0.74	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-144	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	3.7	3.7	0	3.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-144	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	32	35	0.040	34	95% Student's-t UCL	--
199-K-144	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	15	55	0.35	31	95% Student's-t UCL	--
199-K-144	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-144	non-Rad	Fluoride	16984-48-8	14	13	1	93	ug/L	60	60	90	200	0.27	167	95% KM (t) UCL	--
199-K-144	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	20	56	0.34	31	95% Modified-t UCL	--
199-K-144	non-Rad	Iron	7439-89-6	15	1	14	7	ug/L	13	40	40	40	0	40	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-144	non-Rad	Nickel	7440-02-0	15	2	13	13	ug/L	1.5	13	8.0	83	1.2	54	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-144	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	14,000	18,600	0.075	16,800	95% Student's-t UCL	--
199-K-144	non-Rad	Nitrite	14797-65-0	14	2	12	14	ug/L	9.9	131	174	201	0.10	77	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-144	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	241	283	0.040	263	95% Student's-t UCL	--
199-K-144	non-Rad	Vanadium	7440-62-2	15	13	2	87	ug/L	12	17	9.6	16	0.12	14	95% KM (t) UCL	--
199-K-144	non-Rad	Zinc	7440-66-6	15	12	3	80	ug/L	4.0	7.0	4.2	226	1.8	91	95% KM (Chebyshev) UCL	--
199-K-144	Rad	Carbon-14	14762-75-5	8	7	1	88	pCi/L	55	55	17	54	0.39	44	95% KM (t) UCL	--
199-K-144	Rad	Strontium-90	10098-97-2	14	9	5	64	pCi/L	1.5	1.6	1.6	5.7	0.41	3.2	95% KM (t) UCL	--
199-K-144	Rad	Tritium	10028-17-8	14	14	0	100	pCi/L	--	--	13,000	58,000	0.57	28,974	95% Adjusted Gamma UCL	--
199-K-145	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.7	2.7	0	2.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-145	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	32	38	0.051	36	95% Student's-t UCL	--
199-K-145	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	6.1	66	0.65	33	95% Adjusted Gamma UCL	--
199-K-145	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	3.8	3.8	0	3.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-145	non-Rad	Fluoride	16984-48-8	14	12	2	86	ug/L	60	88	52	325	0.55	168	95% KM Adjusted Gamma UCL	--
199-K-145	non-Rad	Hexavalent Chromium	18540-29-9	14	14	0	100	ug/L	--	--	3.1	74	0.85	32	95% Student's-t UCL	--
199-K-145	non-Rad	Iron	7439-89-6	15	2	13	13	ug/L	13	38	19	24	0.18	17	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-145	non-Rad	Nickel	7440-02-0	15	4	11	27	ug/L	1.5	13	3.3	7.0	0.39	4.0	95% KM (t) UCL	--
199-K-145	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	12,300	22,400	0.16	17,306	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-145	non-Rad	Nitrite	14797-65-0	14	1	13	7	ug/L	9.9	131	150	150	0	150	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-145	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	254	305	0.058	285	95% Student's-t UCL	--
199-K-145	non-Rad	Vanadium	7440-62-2	15	11	4	73	ug/L	10	17	7.9	19	0.24	13	95% KM (t) UCL	--
199-K-145	non-Rad	Zinc	7440-66-6	15	10	5	67	ug/L	3.3	6.0	6.0	34	0.68	28	95% GROS Adjusted Gamma UCL	--
199-K-145	Rad	Carbon-14	14762-75-5	8	7	1	88	pCi/L	54	54	9.6	42	0.46	31	95% KM (t) UCL	--
199-K-145	Rad	Technetium-99	14133-76-7	8	1	7	13	pCi/L	5.8	16	7.3	7.3	0	7.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-145	Rad	Tritium	10028-17-8	15	15	0	100	pCi/L	--	--	6,270	62,000	0.61	37,888	95% Student's-t UCL	--
199-K-146	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	13	25	0.21	17	95% Modified-t UCL	--
199-K-146	non-Rad	Beryllium	7440-41-7	1	1	0	100	ug/L	--	--	0.30	0.30	0	0.30	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-146	non-Rad	Chromium	7440-47-3	13	12	1	92	ug/L	5.0	5.0	3.4	28	0.76	15	95% KM Adjusted Gamma UCL	--
199-K-146	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	8.6	8.6	0	8.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-146	non-Rad	Fluoride	16984-48-8	12	10	2	83	ug/L	60	88	48	160	0.31	118	95% KM (t) UCL	--
199-K-146	non-Rad	Hexavalent Chromium	18540-29-9	14	13	1	93	ug/L	8.0	8.0	2.6	21	0.76	12	95% KM Adjusted Gamma UCL	--
199-K-146	non-Rad	Iron	7439-89-6	14	2	12	14	ug/L	13	38	23	29	0.16	21	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-146	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	930	4,430	0.61	2,523	95% Student's-t UCL	--
199-K-146	non-Rad	Nitrite	14797-65-0	12	3	9	25	ug/L	9.9	131	150	191	0.13	93	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-146	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	111	164	0.13	134	95% Modified-t UCL	--
199-K-146	non-Rad	Vanadium	7440-62-2	14	8	6	57	ug/L	5.0	17	4.5	5.9	0.075	5.4	95% KM (t) UCL	--
199-K-146	non-Rad	Zinc	7440-66-6	14	11	3	79	ug/L	3.3	5.0	6.4	916	3.0	359	95% KM (Chebyshev) UCL	--
199-K-147	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-147	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	25	35	0.11	31	95% Student's-t UCL	--
199-K-147	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	10	34	0.42	23	95% Student's-t UCL	--
199-K-147	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	26	26	0	26	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-147	non-Rad	Fluoride	16984-48-8	13	12	1	92	ug/L	60	60	81	200	0.31	186	95% KM Student's t	--
199-K-147	non-Rad	Hexavalent Chromium	18540-29-9	14	14	0	100	ug/L	--	--	9.0	33	0.46	21	95% Student's-t UCL	--
199-K-147	non-Rad	Iron	7439-89-6	14	3	11	21	ug/L	13	38	19	106	0.78	37	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-147	non-Rad	Manganese	7439-96-5	14	1	13	7	ug/L	0.70	6.0	10	10	0	10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-147	non-Rad	Nickel	7440-02-0	14	4	10	29	ug/L	1.5	13	3.6	9.0	0.50	4.6	95% KM Adjusted Gamma UCL	--
199-K-147	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	6,020	12,800	0.22	10,449	95% Student's-t UCL	--
199-K-147	non-Rad	Nitrite	14797-65-0	13	1	12	8	ug/L	9.9	131	168	168	0	168	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-147	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	182	270	0.12	231	95% Student's-t UCL	--
199-K-147	non-Rad	Vanadium	7440-62-2	14	11	3	79	ug/L	10	17	6.1	13	0.23	11	95% KM (t) UCL	--
199-K-147	non-Rad	Zinc	7440-66-6	14	10	4	71	ug/L	5.0	8.3	4.8	62	0.99	26	95% KM H-UCL	--
199-K-147	Rad	Carbon-14	14762-75-5	7	3	4	43	pCi/L	8.0	53	17	34	0.35	27	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-147	Rad	Strontium-90	10098-97-2	11	1	10	9	pCi/L	0.51	2.3	8.8	8.8	0	8.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-147	Rad	Tritium	10028-17-8	7	6	1	86	pCi/L	290	290	538	1,220	0.34	958	95% KM (t) UCL	--
199-K-148	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	5.2	5.2	0	5.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-148	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	29	37	0.071	34	95% Student's-t UCL	--
199-K-148	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	4.5	59	0.73	31	95% Student's-t UCL	--
199-K-148	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	7.1	7.1	0	7.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-148	non-Rad	Fluoride	16984-48-8	13	13	0	100	ug/L	--	--	74	340	0.31	286	95% Student's-t UCL	--
199-K-148	non-Rad	Hexavalent Chromium	18540-29-9	14	13	1	93	ug/L	8.0	8.0	3.1	62	0.79	34	95% KM Adjusted Gamma UCL	--
199-K-148	non-Rad	Iron	7439-89-6	14	1	13	7	ug/L	13	38	74	74	0	74	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-148	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	11,200	15,500	0.081	15,016	95% Student's-t UCL	--
199-K-148	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	9.9	131	126	176	0.23	72	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-148	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	230	268	0.046	255	95% Student's-t UCL	--
199-K-148	non-Rad	Vanadium	7440-62-2	14	13	1	93	ug/L	17	17	14	19	0.091	16	95% KM (t) UCL	--
199-K-148	non-Rad	Zinc	7440-66-6	14	10	4	71	ug/L	3.3	7.0	5.6	42	0.90	34	95% GROS Adjusted Gamma UCL	--
199-K-148	Rad	Carbon-14	14762-75-5	7	3	4	43	pCi/L	8.3	58	20	54	0.58	36	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM Approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-148	Rad	Technetium-99	14133-76-7	7	1	6	14	pCi/L	5.8	38	24	24	0	24	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-148	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	1,460	2,500	0.20	2,415	95% Student's-t UCL	--
199-K-151	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	76	76	0	76	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Aldrin	309-00-2	3	1	2	33	ug/L	0.010	0.010	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
199-K-151	non-Rad	Aluminum	7429-90-5	17	6	11	35	ug/L	10	20	13	47	0.42	22	95% KM (t) UCL	--
199-K-151	non-Rad	Antimony	7440-36-0	17	2	15	12	ug/L	0.30	1.7	0.15	0.16	0.046	0.16	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-151	non-Rad	Arsenic	7440-38-2	17	17	0	100	ug/L	--	--	4.2	5.7	0.10	5.2	95% Student's-t UCL	--
199-K-151	non-Rad	Barium	7440-39-3	18	18	0	100	ug/L	--	--	26	38	0.11	32	95% Student's-t UCL	--
199-K-151	non-Rad	Beryllium	7440-41-7	17	1	16	6	ug/L	0.10	0.35	0.45	0.45	0	0.45	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-151	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	2	1	1	50	ug/L	1.0	1.0	11	11	0	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Boron	7440-42-8	12	6	6	50	ug/L	7.2	41	8.5	13	0.16	11	95% KM (t) UCL	--
199-K-151	non-Rad	Bromodichloromethane	75-27-4	5	3	2	60	ug/L	0.088	1.0	0.10	0.16	0.24	0.16	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-151	non-Rad	Chloroform	67-66-3	17	17	0	100	ug/L	--	--	1.3	8.3	0.55	5.0	95% Student's-t UCL	--
199-K-151	non-Rad	Chromium	7440-47-3	18	18	0	100	ug/L	--	--	2.6	31	0.79	14	95% Adjusted Gamma UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-151	non-Rad	Cobalt	7440-48-4	17	1	16	6	ug/L	0.070	0.22	0.20	0.20	0	0.20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-151	non-Rad	Copper	7440-50-8	17	11	6	65	ug/L	0.20	1.1	0.27	3.2	0.85	1.4	95% GROS Adjusted Gamma UCL	--
199-K-151	non-Rad	Fluoride	16984-48-8	17	17	0	100	ug/L	--	--	69	380	0.28	325	95% Student's-t UCL	--
199-K-151	non-Rad	Hexavalent Chromium	18540-29-9	17	14	3	82	ug/L	2.0	8.0	2.4	26	0.88	13	95% GROS Adjusted Gamma UCL	--
199-K-151	non-Rad	Iron	7439-89-6	12	2	10	17	ug/L	13	38	29	36	0.14	23	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-151	non-Rad	Lithium	7439-93-2	4	3	1	75	ug/L	4.0	4.0	4.2	8.0	0.31	7.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM Approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-151	non-Rad	Manganese	7439-96-5	14	6	8	43	ug/L	0.30	6.0	0.33	30	1.6	30	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-151	non-Rad	Methylene chloride	75-09-2	17	1	16	6	ug/L	0.11	1.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-151	non-Rad	Molybdenum	7439-98-7	16	16	0	100	ug/L	--	--	6.1	9.2	0.10	8.0	95% Student's-t UCL	--
199-K-151	non-Rad	Nickel	7440-02-0	14	6	8	43	ug/L	0.40	4.2	0.36	5.0	0.69	2.6	95% KM (t) UCL	--
199-K-151	non-Rad	Nitrate	14797-55-8	17	17	0	100	ug/L	--	--	5,580	20,800	0.32	13,124	95% Student's-t UCL	--
199-K-151	non-Rad	Nitrite	14797-65-0	17	2	15	12	ug/L	9.9	131	174	252	0.26	74	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-151	non-Rad	Selenium	7782-49-2	17	10	7	59	ug/L	0.60	2.0	0.73	2.8	0.50	1.4	95% KM (t) UCL	--
199-K-151	non-Rad	Silver	7440-22-4	18	1	17	6	ug/L	0.039	4.0	0.35	0.35	0	0.35	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-151	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	213	311	0.11	260	95% Student's-t UCL	--
199-K-151	non-Rad	Tin	7440-31-5	16	7	9	44	ug/L	0.050	1.3	0.14	5.8	1.4	1.4	95% KM (t) UCL	--
199-K-151	non-Rad	Trichloroethene	79-01-6	17	1	16	6	ug/L	0.21	1.0	0.18	0.18	0	0.18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-K-151	non-Rad	Uranium	7440-61-1	12	12	0	100	ug/L	--	--	2.0	3.4	0.15	2.9	95% Student's-t UCL	--
199-K-151	non-Rad	Vanadium	7440-62-2	13	12	1	92	ug/L	12	12	15	34	0.29	22	95% KM (t) UCL	--
199-K-151	non-Rad	Zinc	7440-66-6	14	1	13	7	ug/L	1.6	30	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-151	Rad	Carbon-14	14762-75-5	15	11	4	73	pCi/L	8.0	48	13	41	0.31	24	95% KM (t) UCL	--
199-K-151	Rad	Strontium-90	10098-97-2	17	2	15	12	pCi/L	0.60	2.2	1.4	4.6	0.74	2.4	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-151	Rad	Technetium-99	14133-76-7	15	2	13	13	pCi/L	5.8	10	10	12	0.10	7.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-151	Rad	Tritium	10028-17-8	17	17	0	100	pCi/L	--	--	940	3,900	0.42	2,283	95% Student's-t UCL	--
199-K-151	Rad	Uranium-233/234	U-233/234	2	2	0	100	pCi/L	--	--	0.93	1.0	0.051	1.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	Rad	Uranium-238	U-238	2	2	0	100	pCi/L	--	--	0.61	0.65	0.045	0.65	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-152	non-Rad	Aldrin	309-00-2	3	1	2	33	ug/L	0.010	0.010	0.65	0.65	0	0.65	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
199-K-152	non-Rad	Aluminum	7429-90-5	5	5	0	100	ug/L	--	--	10	272	1.6	272	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-152	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	4.3	4.8	0.039	4.7	95% Student's-t UCL	--
199-K-152	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	23	36	0.13	31	95% Student's-t UCL	--
199-K-152	non-Rad	Bromomethane	74-83-9	5	2	3	40	ug/L	0.25	1.0	0.19	1.1	1.00	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-152	non-Rad	Chloroform	67-66-3	6	5	1	83	ug/L	1.0	1.0	0.49	1.8	0.61	1.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-152	non-Rad	Chloromethane	74-87-3	5	2	3	40	ug/L	0.077	1.0	0.14	0.21	0.28	0.21	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-152	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	28	75	0.28	63	95% Student's-t UCL	--
199-K-152	non-Rad	Cobalt	7440-48-4	5	2	3	40	ug/L	0.10	0.10	0.11	0.15	0.20	0.13	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-152	non-Rad	Copper	7440-50-8	5	1	4	20	ug/L	0.20	0.56	0.28	0.28	0	0.28	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-152	non-Rad	Fluoride	16984-48-8	16	16	0	100	ug/L	--	--	67	260	0.28	216	95% Student's-t UCL	--
199-K-152	non-Rad	Hexavalent Chromium	18540-29-9	18	18	0	100	ug/L	--	--	28	73	0.30	59	95% Student's-t UCL	--
199-K-152	non-Rad	Iron	7439-89-6	13	2	11	15	ug/L	18	40	46	81	0.39	37	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-152	non-Rad	Lithium	7439-93-2	4	2	2	50	ug/L	4.0	4.0	4.6	5.0	0.059	5.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-152	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	4.5	16	0.73	16	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-152	non-Rad	Nitrate	14797-55-8	16	16	0	100	ug/L	--	--	7,480	15,500	0.23	13,513	95% Student's-t UCL	--
199-K-152	non-Rad	Nitrite	14797-65-0	16	5	11	31	ug/L	9.9	131	134	230	0.20	99	95% KM (t) UCL	--
199-K-152	non-Rad	Selenium	7782-49-2	5	5	0	100	ug/L	--	--	0.67	1.4	0.27	1.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-152	non-Rad	Silver	7440-22-4	13	2	11	15	ug/L	0.20	6.0	0.48	4.6	1.1	4.0	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-152	non-Rad	Strontium	7440-24-6	13	13	0	100	ug/L	--	--	213	303	0.13	272	95% Student's-t UCL	--
199-K-152	non-Rad	Toluene	108-88-3	6	1	5	17	ug/L	0.062	1.0	0.35	0.35	0	0.35	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-152	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	1.8	2.0	0.062	2.0	95% Student's-t UCL	--
199-K-152	non-Rad	Vanadium	7440-62-2	13	13	0	100	ug/L	--	--	13	27	0.21	20	95% Student's-t UCL	--
199-K-152	non-Rad	Zinc	7440-66-6	13	7	6	54	ug/L	3.3	7.0	4.5	48	0.78	18	95% KM (t) UCL	--
199-K-152	Rad	Carbon-14	14762-75-5	10	3	7	30	pCi/L	8.0	50	7.8	22	0.62	13	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-152	Rad	Technetium-99	14133-76-7	10	1	9	10	pCi/L	6.3	41	40	40	0	40	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-152	Rad	Tritium	10028-17-8	12	11	1	92	pCi/L	200	200	160	1,510	0.53	1,081	95% KM (t) UCL	--
199-K-152	Rad	Uranium-233/234	U-233/234	2	2	0	100	pCi/L	--	--	0.76	0.77	0.0092	0.77	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-152	Rad	Uranium-235	15117-96-1	2	1	1	50	pCi/L	0.077	0.077	0.11	0.11	0	0.11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-152	Rad	Uranium-238	U-238	2	2	0	100	pCi/L	--	--	0.54	0.70	0.18	0.70	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-153	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.4	2.4	0	2.4	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-153	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	25	31	0.079	29	95% Student's-t UCL	--
199-K-153	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	16	27	0.17	23	95% Student's-t UCL	--
199-K-153	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	26	26	0	26	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-153	non-Rad	Fluoride	16984-48-8	13	13	0	100	ug/L	--	--	122	260	0.28	213	95% Student's-t UCL	--
199-K-153	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	14	31	0.26	24	95% Student's-t UCL	--
199-K-153	non-Rad	Iron	7439-89-6	15	1	14	7	ug/L	13	38	44	44	0	44	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-153	non-Rad	Nickel	7440-02-0	15	5	10	33	ug/L	1.5	13	4.0	9.0	0.38	4.5	95% KM (t) UCL	--
199-K-153	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	9,960	12,800	0.088	11,442	95% Modified-t UCL	--
199-K-153	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	9.9	131	160	175	0.063	74	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-153	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	242	281	0.043	267	95% Student's-t UCL	--
199-K-153	non-Rad	Vanadium	7440-62-2	15	13	2	87	ug/L	17	17	9.2	21	0.24	14	95% KM (t) UCL	--
199-K-153	non-Rad	Zinc	7440-66-6	15	12	3	80	ug/L	3.0	8.3	3.9	86	1.1	44	95% GROS Adjusted Gamma UCL	--
199-K-153	Rad	Carbon-14	14762-75-5	8	6	2	75	pCi/L	8.4	57	9.8	27	0.38	23	95% KM (t) UCL	--
199-K-153	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	570	1,410	0.33	1,033	95% Student's-t UCL	--
199-K-154	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	4.4	4.4	0	4.4	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-154	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	29	67	0.28	39	95% Modified-t UCL	--
199-K-154	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	24	92	0.30	70	95% Student's-t UCL	--
199-K-154	non-Rad	Fluoride	16984-48-8	13	12	1	92	ug/L	60	60	180	310	0.18	267	95% KM (t) UCL	--
199-K-154	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	25	96	0.36	70	95% Student's-t UCL	--
199-K-154	non-Rad	Iron	7439-89-6	15	2	13	13	ug/L	13	38	22	382	1.3	372	99% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-154	non-Rad	Manganese	7439-96-5	15	1	14	7	ug/L	1.0	6.0	7.3	7.3	0	7.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-154	non-Rad	Nickel	7440-02-0	15	4	11	27	ug/L	1.5	13	2.4	8.0	0.51	3.7	95% KM (t) UCL	--
199-K-154	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	10,600	14,200	0.091	13,012	95% Student's-t UCL	--
199-K-154	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	9.9	131	146	208	0.25	79	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-154	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	255	435	0.16	305	95% Modified-t UCL	--
199-K-154	non-Rad	Vanadium	7440-62-2	15	13	2	87	ug/L	12	17	8.3	17	0.19	15	95% KM (t) UCL	--
199-K-154	non-Rad	Zinc	7440-66-6	15	10	5	67	ug/L	3.3	7.0	5.3	27	0.59	14	95% KM (t) UCL	--
199-K-154	Rad	Tritium	10028-17-8	8	4	4	50	pCi/L	200	344	834	2,450	0.45	1,458	95% KM (t) UCL	--
199-K-157	non-Rad	Antimony	7440-36-0	5	1	4	20	ug/L	0.60	3.7	5.6	5.6	0	5.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-157	non-Rad	Arsenic	7440-38-2	5	4	1	80	ug/L	1.8	1.8	1.8	9.0	0.92	9.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-157	non-Rad	Barium	7440-39-3	26	26	0	100	ug/L	--	--	30	42	0.10	36	95% Adjusted Gamma UCL	--
199-K-157	non-Rad	Beryllium	7440-41-7	5	1	4	20	ug/L	0.10	0.28	4.8	4.8	0	4.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-157	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	71	155	0.53	155	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-157	non-Rad	Cadmium	7440-43-9	5	1	4	20	ug/L	0.20	0.34	5.0	5.0	0	5.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-157	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	1.0	1.0	0.48	0.86	0.40	0.86	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-157	non-Rad	Chromium	7440-47-3	25	25	0	100	ug/L	--	--	1.9	57	0.99	27	95% H-UCL	--
199-K-157	non-Rad	Cobalt	7440-48-4	5	1	4	20	ug/L	0.10	2.7	5.0	5.0	0	5.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-157	non-Rad	Copper	7440-50-8	5	1	4	20	ug/L	0.20	2.1	5.4	5.4	0	5.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-157	non-Rad	Fluoride	16984-48-8	24	21	3	88	ug/L	30	88	65	210	0.31	157	95% KM (t) UCL	--
199-K-157	non-Rad	Hexavalent Chromium	18540-29-9	15	14	1	93	ug/L	8.0	8.0	1.7	56	1.00	34	95% Gamma Adjusted KM-UCL	--
199-K-157	non-Rad	Iron	7439-89-6	26	12	14	46	ug/L	13	40	19	500	1.4	114	95% Gamma Adjusted KM-UCL	--
199-K-157	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	5.8	20	0.78	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-157	non-Rad	Manganese	7439-96-5	26	6	20	23	ug/L	0.70	6.0	5.3	18	0.54	4.5	95% KM (t) UCL	--
199-K-157	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	2.9	9.0	0.73	9.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-157	non-Rad	Nickel	7440-02-0	26	7	19	27	ug/L	1.5	67	2.7	8.1	0.38	3.5	95% KM (t) UCL	--
199-K-157	non-Rad	Nitrate	14797-55-8	24	24	0	100	ug/L	--	--	8,990	41,922	0.35	23,681	95% Student's-t UCL	--
199-K-157	non-Rad	Nitrite	14797-65-0	24	4	20	17	ug/L	9.9	131	150	201	0.13	64	95% KM (t) UCL	--
199-K-157	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	1.6	2.4	0.19	2.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-157	non-Rad	Silver	7440-22-4	26	1	25	4	ug/L	0.20	7.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-157	non-Rad	Strontium	7440-24-6	26	26	0	100	ug/L	--	--	275	438	0.13	358	95% Student's-t UCL	--
199-K-157	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	3.1	3.7	0.089	3.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-157	non-Rad	Vanadium	7440-62-2	26	17	9	65	ug/L	4.4	17	5.1	15	0.33	10	95% KM (t) UCL	--
199-K-157	non-Rad	Zinc	7440-66-6	26	2	24	8	ug/L	3.0	8.3	3.8	12	0.71	5.7	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-157	Rad	Carbon-14	14762-75-5	10	7	3	70	pCi/L	8.2	54	9.2	64	0.78	57	95% GROS Adjusted Gamma UCL	--
199-K-157	Rad	Strontium-90	10098-97-2	10	2	8	20	pCi/L	0.57	2.0	1.2	2.6	0.52	2.1	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-157	Rad	Technetium-99	14133-76-7	8	2	6	25	pCi/L	6.4	16	18	56	0.73	50	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-157	Rad	Tritium	10028-17-8	31	31	0	100	pCi/L	--	--	1,520	290,000	2.2	71,750	95% Chebyshev (Mean, Sd) UCL	--
199-K-161	non-Rad	Aluminum	7429-90-5	13	1	12	8	ug/L	10	20	462	462	0	462	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-K-161	non-Rad	Arsenic	7440-38-2	13	8	5	62	ug/L	1.2	1.7	0.75	2.3	0.30	1.7	95% KM (t) UCL	--
199-K-161	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	11	19	0.15	16	95% Student's-t UCL	--
199-K-161	non-Rad	Boron	7440-42-8	8	3	5	38	ug/L	4.0	15	4.8	29	1.0	15	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-161	non-Rad	Chromium	7440-47-3	14	12	2	86	ug/L	3.3	13	1.7	15	0.68	8.3	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-161	non-Rad	Cobalt	7440-48-4	13	1	12	8	ug/L	0.10	0.22	0.34	0.34	0	0.34	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-161	non-Rad	Copper	7440-50-8	13	13	0	100	ug/L	--	--	0.62	17	0.72	11	95% Student's-t UCL	--
199-K-161	non-Rad	Fluoride	16984-48-8	12	9	3	75	ug/L	46	60	75	120	0.19	98	95% KM (t) UCL	--
199-K-161	non-Rad	Hexavalent Chromium	18540-29-9	14	11	3	79	ug/L	2.0	8.0	3.0	14	0.47	7.5	95% KM (t) UCL	--
199-K-161	non-Rad	Manganese	7439-96-5	9	1	8	11	ug/L	0.20	4.0	18	18	0	18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-161	non-Rad	Molybdenum	7439-98-7	13	11	2	85	ug/L	0.10	1.0	0.72	2.3	0.41	1.5	95% KM (t) UCL	--
199-K-161	non-Rad	Nickel	7440-02-0	9	3	6	33	ug/L	0.20	4.0	0.70	1.3	0.38	0.79	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-161	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	487	4,870	0.68	2,658	95% Student's-t UCL	--
199-K-161	non-Rad	Nitrite	14797-65-0	12	1	11	8	ug/L	9.9	131	269	269	0	269	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-161	non-Rad	Selenium	7782-49-2	13	1	12	8	ug/L	0.60	2.0	2.6	2.6	0	2.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-161	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	95	162	0.15	140	95% Student's-t UCL	--
199-K-161	non-Rad	Thallium	7440-28-0	13	1	12	8	ug/L	0.10	0.60	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-161	non-Rad	Tin	7440-31-5	13	2	11	15	ug/L	0.10	1.0	0.14	3.5	1.3	3.5	Maximum Detect	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-161	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	0.50	0.85	0.21	0.71	95% Student's-t UCL	--
199-K-161	non-Rad	Vanadium	7440-62-2	8	7	1	88	ug/L	12	12	3.1	6.7	0.29	5.1	95% KM (t) UCL	--
199-K-161	non-Rad	Zinc	7440-66-6	9	9	0	100	ug/L	--	--	3.6	20	0.50	15	95% Student's-t UCL	--
199-K-161	Rad	Strontium-90	10098-97-2	14	12	2	86	pCi/L	1.1	2.0	5.8	13	0.23	9.9	95% KM (t) UCL	--
199-K-161	Rad	Tritium	10028-17-8	7	1	6	14	pCi/L	94	394	124	124	0	124	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
199-K-161	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.42	0.42	0	0.42	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-161	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.40	0.40	0	0.40	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-163	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	3.8	3.8	0	3.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-163	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	30	36	0.046	35	95% Student's-t UCL	--
199-K-163	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	3.7	78	0.77	39	95% Student's-t UCL	--
199-K-163	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	3.1	3.1	0	3.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-163	non-Rad	Fluoride	16984-48-8	13	12	1	92	ug/L	60	60	174	310	0.20	265	95% KM (t) UCL	--
199-K-163	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	2.1	81	0.86	38	95% Student's-t UCL	--
199-K-163	non-Rad	Iron	7439-89-6	15	3	12	20	ug/L	19	40	25	58	0.50	30	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-163	non-Rad	Nickel	7440-02-0	15	3	12	20	ug/L	1.5	13	1.9	9.0	0.77	3.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-163	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	13,100	15,500	0.050	14,447	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-163	non-Rad	Nitrite	14797-65-0	13	2	11	15	ug/L	9.9	131	127	165	0.18	70	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-163	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	262	310	0.044	292	95% Student's-t UCL	--
199-K-163	non-Rad	Vanadium	7440-62-2	15	13	2	87	ug/L	12	17	11	16	0.080	14	95% KM (t) UCL	--
199-K-163	non-Rad	Zinc	7440-66-6	15	12	3	80	ug/L	3.3	7.0	5.1	105	1.1	35	95% KM (t) UCL	--
199-K-163	Rad	Carbon-14	14762-75-5	8	4	4	50	pCi/L	8.3	56	11	69	0.78	37	95% KM (t) UCL	--
199-K-163	Rad	Technetium-99	14133-76-7	8	1	7	13	pCi/L	6.4	30	7.2	7.2	0	7.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-163	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	1,860	5,200	0.43	3,496	95% Modified-t UCL	--
199-K-165	non-Rad	2-Butanol	78-92-2	1	1	0	100	ug/L	--	--	30	30	0	30	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-165	non-Rad	2-Butanone	78-93-3	12	2	10	17	ug/L	0.47	2.0	0.50	0.65	0.18	0.58	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-165	non-Rad	2-Propanol	67-63-0	2	1	1	50	ug/L	5.0	5.0	120	120	0	120	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-165	non-Rad	Acetone	67-64-1	12	3	9	25	ug/L	0.34	5.0	1.8	2.8	0.27	1.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-165	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.1	2.1	0	2.1	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-165	non-Rad	Barium	7440-39-3	24	24	0	100	ug/L	--	--	35	57	0.15	49	95% Student's-t UCL	--
199-K-165	non-Rad	Chloroform	67-66-3	12	7	5	58	ug/L	1.0	1.0	0.24	0.51	0.27	0.39	95% KM (t) UCL	--
199-K-165	non-Rad	Chromium	7440-47-3	26	26	0	100	ug/L	--	--	9.1	261	0.97	103	95% Adjusted Gamma UCL	--
199-K-165	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	6.1	11	0.39	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-165	non-Rad	Fluoride	16984-48-8	22	20	2	91	ug/L	60	72	72	230	0.27	179	95% KM (t) UCL	--
199-K-165	non-Rad	Hexavalent Chromium	18540-29-9	32	32	0	100	ug/L	--	--	7.8	353	1.3	156	95% Chebyshev (Mean, Sd) UCL	--
199-K-165	non-Rad	Iron	7439-89-6	24	11	13	46	ug/L	13	40	15	190	0.73	101	95% GROS Adjusted Gamma UCL	--
199-K-165	non-Rad	Manganese	7439-96-5	24	7	17	29	ug/L	0.70	6.0	0.89	7.7	0.89	2.7	95% Gamma Adjusted KM-UCL	--
199-K-165	non-Rad	Mercury	7439-97-6	6	1	5	17	ug/L	0.030	0.20	0.16	0.16	0	0.16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-K-165	non-Rad	Methylene chloride	75-09-2	12	2	10	17	ug/L	0.27	1.0	1.6	2.8	0.39	1.1	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-165	non-Rad	Nickel	7440-02-0	24	12	12	50	ug/L	1.6	13	3.2	58	1.3	23	95% KM (Chebyshev) UCL	--
199-K-165	non-Rad	Nitrate	14797-55-8	22	22	0	100	ug/L	--	--	17,400	27,400	0.10	22,498	95% Student's-t UCL	--
199-K-165	non-Rad	Nitrite	14797-65-0	22	4	18	18	ug/L	9.9	131	164	486	0.51	107	95% KM (t) UCL	--
199-K-165	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	219	350	0.15	283	95% Student's-t UCL	--
199-K-165	non-Rad	Trichloroethene	79-01-6	12	12	0	100	ug/L	--	--	3.0	4.7	0.14	4.1	95% Student's-t UCL	--
199-K-165	non-Rad	Vanadium	7440-62-2	24	21	3	88	ug/L	15	17	8.6	25	0.34	14	95% KM Adjusted Gamma UCL	--
199-K-165	non-Rad	Zinc	7440-66-6	24	15	9	63	ug/L	3.0	20	5.0	100	1.3	18	95% KM H-UCL	--
199-K-165	Rad	Carbon-14	14762-75-5	18	18	0	100	pCi/L	--	--	159	780	0.36	524	95% Student's-t UCL	--
199-K-165	Rad	Technetium-99	14133-76-7	7	7	0	100	pCi/L	--	--	25	37	0.14	35	95% Student's-t UCL	--
199-K-165	Rad	Tritium	10028-17-8	17	17	0	100	pCi/L	--	--	930	1,520	0.14	1,336	95% Student's-t UCL	--
199-K-166	non-Rad	Acetone	67-64-1	15	1	14	7	ug/L	1.0	5.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-166	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.5	2.5	0	2.5	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-166	non-Rad	Barium	7440-39-3	24	24	0	100	ug/L	--	--	35	62	0.15	53	95% Student's-t UCL	--
199-K-166	non-Rad	Chloroform	67-66-3	15	7	8	47	ug/L	1.0	1.0	0.32	0.41	0.092	0.37	95% KM (t) UCL	--
199-K-166	non-Rad	Chromium	7440-47-3	26	25	1	96	ug/L	13	13	3.5	40	0.71	18	95% KM Adjusted Gamma UCL	--
199-K-166	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	19	19	0	19	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-166	non-Rad	Fluoride	16984-48-8	22	19	3	86	ug/L	46	60	51	220	0.35	180	95% KM H-UCL	--
199-K-166	non-Rad	Hexavalent Chromium	18540-29-9	28	26	2	93	ug/L	8.0	8.0	3.1	66	0.94	19	95% KM H-UCL	--
199-K-166	non-Rad	Iron	7439-89-6	24	1	23	4	ug/L	13	40	31	31	0	31	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-166	non-Rad	Manganese	7439-96-5	24	2	22	8	ug/L	1.0	6.0	2.4	3.6	0.29	2.0	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-166	non-Rad	Methylene chloride	75-09-2	15	1	14	7	ug/L	0.27	1.6	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-166	non-Rad	Nickel	7440-02-0	24	6	18	25	ug/L	1.5	13	2.8	11	0.69	3.5	95% KM H-UCL	--
199-K-166	non-Rad	Nitrate	14797-55-8	22	22	0	100	ug/L	--	--	21,400	24,800	0.033	23,614	95% Student's-t UCL	--
199-K-166	non-Rad	Nitrite	14797-65-0	22	4	18	18	ug/L	9.9	131	145	209	0.17	66	95% KM (t) UCL	--
199-K-166	non-Rad	Silver	7440-22-4	24	2	22	8	ug/L	0.99	7.0	1.0	4.1	0.85	2.2	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-166	non-Rad	Strontium	7440-24-6	23	23	0	100	ug/L	--	--	199	286	0.091	262	95% Student's-t UCL	--
199-K-166	non-Rad	Trichloroethene	79-01-6	15	14	1	93	ug/L	1.0	1.0	3.3	4.7	0.096	4.3	95% KM (t) UCL	--
199-K-166	non-Rad	Vanadium	7440-62-2	24	17	7	71	ug/L	4.4	17	5.1	25	0.58	8.9	95% KM (BCA) UCL	--
199-K-166	non-Rad	Zinc	7440-66-6	24	22	2	92	ug/L	3.3	3.3	6.7	82	0.73	43	95% GROS Adjusted Gamma UCL	--
199-K-166	Rad	Carbon-14	14762-75-5	8	8	0	100	pCi/L	--	--	336	688	0.27	591	95% Student's-t UCL	--
199-K-166	Rad	Strontium-90	10098-97-2	8	1	7	13	pCi/L	0.67	1.9	1.8	1.8	0	1.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-166	Rad	Technetium-99	14133-76-7	6	5	1	83	pCi/L	6.9	6.9	27	42	0.19	40	95% KM (t) UCL	--
199-K-166	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	1,130	1,660	0.14	1,521	95% Student's-t UCL	--
199-K-168	non-Rad	2-Butanone	78-93-3	16	1	15	6	ug/L	0.47	3.0	0.47	0.47	0	0.47	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-168	non-Rad	Acetone	67-64-1	16	1	15	6	ug/L	0.34	5.0	4.8	4.8	0	4.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-168	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.5	2.5	0	2.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-168	non-Rad	Barium	7440-39-3	26	26	0	100	ug/L	--	--	34	67	0.14	47	95% Adjusted Gamma UCL	--
199-K-168	non-Rad	Chloroform	67-66-3	16	8	8	50	ug/L	1.0	1.0	0.30	0.52	0.23	0.41	95% KM (t) UCL	--
199-K-168	non-Rad	Chromium	7440-47-3	27	27	0	100	ug/L	--	--	8.5	67	0.63	29	95% Adjusted Gamma UCL	--
199-K-168	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	6.8	6.8	0	6.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-168	non-Rad	Fluoride	16984-48-8	23	23	0	100	ug/L	--	--	83	357	0.36	180	95% Adjusted Gamma UCL	--
199-K-168	non-Rad	Hexavalent Chromium	18540-29-9	31	31	0	100	ug/L	--	--	7.8	95	0.79	36	95% Adjusted Gamma UCL	--
199-K-168	non-Rad	Iron	7439-89-6	26	6	20	23	ug/L	13	40	26	426	1.1	74	95% KM (t) UCL	--
199-K-168	non-Rad	Manganese	7439-96-5	26	4	22	15	ug/L	0.70	6.0	1.8	14	0.89	2.7	95% KM (t) UCL	--
199-K-168	non-Rad	Methylene chloride	75-09-2	16	1	15	6	ug/L	0.27	1.6	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-168	non-Rad	Nickel	7440-02-0	26	10	16	38	ug/L	1.5	10	1.7	11	0.49	4.5	95% GROS Adjusted Gamma UCL	--
199-K-168	non-Rad	Nitrate	14797-55-8	23	23	0	100	ug/L	--	--	17,400	24,300	0.093	22,057	95% Student's-t UCL	--
199-K-168	non-Rad	Nitrite	14797-65-0	23	5	18	22	ug/L	62	131	152	216	0.16	108	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-168	non-Rad	Silver	7440-22-4	26	2	24	8	ug/L	0.99	7.0	4.1	15	0.81	5.0	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-168	non-Rad	Strontium	7440-24-6	24	24	0	100	ug/L	--	--	214	294	0.088	265	95% Student's-t UCL	--
199-K-168	non-Rad	Trichloroethene	79-01-6	16	16	0	100	ug/L	--	--	3.3	6.0	0.16	4.5	95% Student's-t UCL	--
199-K-168	non-Rad	Vanadium	7440-62-2	26	24	2	92	ug/L	10	15	5.7	24	0.34	12	95% KM Adjusted Gamma UCL	--
199-K-168	non-Rad	Zinc	7440-66-6	26	22	4	85	ug/L	3.3	6.0	5.0	362	2.1	89	95% KM (Chebyshev) UCL	--
199-K-168	Rad	Carbon-14	14762-75-5	14	14	0	100	pCi/L	--	--	220	532	0.22	492	95% Student's-t UCL	--
199-K-168	Rad	Strontium-90	10098-97-2	9	1	8	11	pCi/L	0.69	2.1	3.7	3.7	0	3.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-168	Rad	Technetium-99	14133-76-7	7	7	0	100	pCi/L	--	--	31	66	0.33	49	95% Modified-t UCL	--
199-K-168	Rad	Tritium	10028-17-8	12	12	0	100	pCi/L	--	--	1,100	1,800	0.15	1,448	95% Student's-t UCL	--
199-K-171	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	3.8	3.8	0	3.8	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-171	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	22	26	0.045	24	95% Student's-t UCL	--
199-K-171	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	14	54	0.37	40	95% Student's-t UCL	--
199-K-171	non-Rad	Fluoride	16984-48-8	11	10	1	91	ug/L	60	60	176	330	0.20	281	95% KM (t) UCL	--
199-K-171	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	11	69	0.50	43	95% Student's-t UCL	--
199-K-171	non-Rad	Iron	7439-89-6	14	2	12	14	ug/L	18	38	13	113	1.1	81	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-171	non-Rad	Manganese	7439-96-5	14	1	13	7	ug/L	0.26	6.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-171	non-Rad	Nickel	7440-02-0	14	2	12	14	ug/L	1.5	67	3.6	9.0	0.61	6.1	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-171	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	12,200	14,200	0.043	14,097	95% Student's-t UCL	--
199-K-171	non-Rad	Nitrite	14797-65-0	11	2	9	18	ug/L	9.9	131	160	188	0.11	94	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Machile, and Lee (2006).
199-K-171	non-Rad	Silver	7440-22-4	14	1	13	7	ug/L	0.93	7.0	20	20	0	20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-171	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	255	312	0.059	281	95% Modified-t UCL	--
199-K-171	non-Rad	Vanadium	7440-62-2	14	13	1	93	ug/L	17	17	12	16	0.083	15	95% KM (t) UCL	--
199-K-171	non-Rad	Zinc	7440-66-6	14	13	1	93	ug/L	3.3	3.3	5.2	100	1.2	56	95% KM H-UCL	--
199-K-171	Rad	Carbon-14	14762-75-5	7	1	6	14	pCi/L	3.9	53	5.7	5.7	0	5.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon-14 was not processed!
199-K-171	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	2,110	5,990	0.43	4,976	95% Student's-t UCL	--
199-K-173	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	34	34	0	34	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-173	non-Rad	Acetone	67-64-1	27	5	22	19	ug/L	0.34	5.0	0.65	8.6	0.96	1.6	95% KM (t) UCL	--
199-K-173	non-Rad	Aluminum	7429-90-5	11	5	6	45	ug/L	10	17	15	56	0.47	33	95% KM (t) UCL	--
199-K-173	non-Rad	Antimony	7440-36-0	11	1	10	9	ug/L	0.60	2.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-173	non-Rad	Arsenic	7440-38-2	11	10	1	91	ug/L	4.0	4.0	2.4	4.1	0.18	3.7	95% KM (t) UCL	--
199-K-173	non-Rad	Barium	7440-39-3	40	40	0	100	ug/L	--	--	32	53	0.14	41	95% Student's-t UCL	--
199-K-173	non-Rad	Beryllium	7440-41-7	11	1	10	9	ug/L	0.10	0.35	0.32	0.32	0	0.32	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-173	non-Rad	Boron	7440-42-8	12	7	5	58	ug/L	7.2	25	9.0	16	0.19	14	95% KM (t) UCL	--
199-K-173	non-Rad	Chloroform	67-66-3	27	16	11	59	ug/L	1.0	1.0	0.18	0.49	0.23	0.32	95% KM (t) UCL	--
199-K-173	non-Rad	Chromium	7440-47-3	41	41	0	100	ug/L	--	--	14	1,010	1.1	476	95% Chebyshev (Mean, Sd) UCL	--
199-K-173	non-Rad	Cobalt	7440-48-4	11	2	9	18	ug/L	0.10	0.90	0.10	0.27	0.64	0.23	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-173	non-Rad	Copper	7440-50-8	11	9	2	82	ug/L	0.20	0.20	0.23	20	1.3	20	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-173	non-Rad	Fluoride	16984-49-8	28	28	0	100	ug/L	--	--	62	290	0.29	211	95% Student's-t UCL	--
199-K-173	non-Rad	Hexavalent Chromium	18540-29-9	54	54	0	100	ug/L	--	--	8.8	974	1.2	401	95% Chebyshev (Mean, Sd) UCL	--
199-K-173	non-Rad	Iron	7439-89-6	43	11	32	26	ug/L	13	40	15	106	0.73	27	95% KM (t) UCL	--
199-K-173	non-Rad	Manganese	7439-96-5	37	4	33	11	ug/L	0.70	4.1	1.1	6.0	0.86	1.6	95% KM (t) UCL	--
199-K-173	non-Rad	Mercury	7439-97-6	22	1	21	5	ug/L	0.050	0.10	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-K-173	non-Rad	Methylene chloride	75-09-2	27	2	25	7	ug/L	0.11	1.6	1.6	2.5	0.30	0.49	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-173	non-Rad	Molybdenum	7439-98-7	11	11	0	100	ug/L	--	--	1.2	3.2	0.31	2.6	95% Student's-t UCL	--
199-K-173	non-Rad	Nickel	7440-02-0	37	3	34	8	ug/L	0.40	13	0.98	15	1.2	2.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-173	non-Rad	Nitrate	14797-55-8	28	28	0	100	ug/L	--	--	20,100	24,300	0.045	22,776	95% Student's-t UCL	--
199-K-173	non-Rad	Nitrite	14797-65-0	27	7	20	26	ug/L	9.9	312	134	255	0.22	93	95% KM (t) UCL	--
199-K-173	non-Rad	o-Xylene	95-47-6	1	1	0	100	ug/L	--	--	0.52	0.52	0	0.52	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable o-Xylene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-173	non-Rad	Selenium	7782-49-2	11	4	7	36	ug/L	0.60	2.0	0.76	5.8	0.87	2.4	95% KM (t) UCL	--
199-K-173	non-Rad	Strontium	7440-24-6	29	29	0	100	ug/L	--	--	54	319	0.18	257	95% Student's-t UCL	--
199-K-173	non-Rad	Thallium	7440-28-0	11	1	10	9	ug/L	0.10	0.60	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-173	non-Rad	Tin	7440-31-5	11	2	9	18	ug/L	0.10	1.2	0.46	0.72	0.30	0.63	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-173	non-Rad	Toluene	108-88-3	27	1	26	4	ug/L	0.062	1.0	0.14	0.14	0	0.14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-173	non-Rad	Trichloroethene	79-01-6	27	27	0	100	ug/L	--	--	2.8	5.3	0.16	4.1	95% Student's-t UCL	--
199-K-173	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	1.6	3.4	0.27	3.1	95% Student's-t UCL	--
199-K-173	non-Rad	Vanadium	7440-62-2	43	33	10	77	ug/L	10	17	8.5	23	0.25	13	95% KM (BCA) UCL	--
199-K-173	non-Rad	Xylenes (total)	1330-20-7	27	1	26	4	ug/L	0.11	1.0	0.52	0.52	0	0.52	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Xylenes (total) was not processed!
199-K-173	non-Rad	Zinc	7440-66-6	37	10	27	27	ug/L	3.0	7.5	5.7	19	0.44	6.4	95% KM (t) UCL	--
199-K-173	Rad	Carbon-14	14762-75-5	29	29	0	100	pCi/L	--	--	274	665	0.18	480	95% Student's-t UCL	--
199-K-173	Rad	Strontium-90	10099-97-2	10	1	9	10	pCi/L	0.82	1.9	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-173	Rad	Technetium-99	14133-76-7	7	7	0	100	pCi/L	--	--	14	47	0.42	43	95% Student's-t UCL	--
199-K-173	Rad	Tritium	10028-17-8	29	29	0	100	pCi/L	--	--	813	1,850	0.18	1,376	95% Student's-t UCL	--
199-K-178	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	22	56	0.26	35	95% Modified-t UCL	--
199-K-178	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	16	122	0.94	45	95% Modified-t UCL	--
199-K-178	non-Rad	Fluoride	16984-48-8	12	8	4	67	ug/L	46	88	50	170	0.43	115	95% KM (t) UCL	--
199-K-178	non-Rad	Hexavalent Chromium	18540-29-9	16	16	0	100	ug/L	--	--	15	117	0.86	39	95% Modified-t UCL	--
199-K-178	non-Rad	Iron	7439-89-6	13	2	11	15	ug/L	18	30	56	91	0.34	41	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-178	non-Rad	Manganese	7439-96-5	13	1	12	8	ug/L	2.0	4.0	5.3	5.3	0	5.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-178	non-Rad	Nickel	7440-02-0	13	3	10	23	ug/L	1.5	5.0	3.5	8.0	0.40	3.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-178	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	11,100	18,100	0.14	16,331	95% Student's-t UCL	--
199-K-178	non-Rad	Nitrite	14797-65-0	12	3	9	25	ug/L	9.9	131	185	230	0.11	114	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-178	non-Rad	Strontium	7440-24-6	13	13	0	100	ug/L	--	--	182	471	0.28	291	95% Modified-t UCL	--
199-K-178	non-Rad	Vanadium	7440-62-2	13	6	7	46	ug/L	5.0	12	4.2	5.8	0.13	5.0	95% KM (t) UCL	--
199-K-178	non-Rad	Zinc	7440-66-6	13	12	1	92	ug/L	6.0	6.0	5.0	32	0.64	17	95% KM (t) UCL	--
199-K-178	Rad	Carbon-14	14762-75-5	12	12	0	100	pCi/L	--	--	94	405	0.36	302	95% Student's-t UCL	--
199-K-178	Rad	Strontium-90	10098-97-2	13	8	5	62	pCi/L	1.7	2.0	1.4	4.3	0.35	2.6	95% KM (t) UCL	--
199-K-178	Rad	Tritium	10028-17-8	13	13	0	100	pCi/L	--	--	980	4,000	0.44	2,179	95% Adjusted Gamma UCL	--
199-K-18	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	10	10	12	36	0.72	36	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-18	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	1.9	2.6	0.12	2.5	95% Student's-t UCL	--
199-K-18	non-Rad	Barium	7440-39-3	27	27	0	100	ug/L	--	--	29	41	0.090	34	95% Modified-t UCL	--
199-K-18	non-Rad	Beryllium	7440-41-7	5	1	4	20	ug/L	0.10	0.28	0.23	0.23	0	0.23	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-18	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	1.0	2.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-18	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	2.0	2.1	0.028	2.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-18	non-Rad	Chromium	7440-47-3	26	26	0	100	ug/L	--	--	2.5	203	1.4	91	95% H-UCL	--
199-K-18	non-Rad	Cobalt	7440-48-4	5	1	4	20	ug/L	0.10	2.7	0.17	0.17	0	0.17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-18	non-Rad	Fluoride	16984-48-8	26	18	8	69	ug/L	46	88	51	130	0.30	87	95% KM (t) UCL	--
199-K-18	non-Rad	Hexavalent Chromium	18540-29-9	28	28	0	100	ug/L	--	--	1.5	201	1.4	113	95% Chebyshev (Mean, Sd) UCL	--
199-K-18	non-Rad	Iron	7439-89-6	27	27	0	100	ug/L	--	--	43	485	0.35	355	95% Student's-t UCL	--
199-K-18	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	5.7	25	0.89	25	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-18	non-Rad	Manganese	7439-96-5	27	23	4	85	ug/L	4.0	6.0	4.0	27	0.57	9.3	95% KM Adjusted Gamma UCL	--
199-K-18	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	0.85	7.0	1.1	7.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-18	non-Rad	Nickel	7440-02-0	27	7	20	26	ug/L	1.6	13	2.1	5.9	0.29	3.2	95% KM (t) UCL	--
199-K-18	non-Rad	Nitrate	14797-55-8	26	26	0	100	ug/L	--	--	15,100	76,600	0.65	45,820	95% Chebyshev (Mean, Sd) UCL	--
199-K-18	non-Rad	Nitrite	14797-65-0	26	5	21	19	ug/L	9.9	131	126	189	0.17	64	95% KM (t) UCL	--
199-K-18	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	1.1	1.8	0.26	1.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-18	non-Rad	Strontium	7440-24-6	27	27	0	100	ug/L	--	--	239	368	0.11	283	95% Modified-t UCL	--
199-K-18	non-Rad	Tin	7440-31-5	2	1	1	50	ug/L	0.10	0.10	0.18	0.18	0	0.18	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-18	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	0.65	0.79	0.11	0.79	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-18	non-Rad	Vanadium	7440-62-2	27	21	6	78	ug/L	10	17	5.9	13	0.21	8.8	95% KM (t) UCL	--
199-K-18	non-Rad	Zinc	7440-66-6	27	27	0	100	ug/L	--	--	28	65	0.22	49	95% Student's-t UCL	--
199-K-18	Rad	Carbon-14	14762-75-5	10	8	2	80	pCi/L	18	50	11	35	0.28	28	95% KM (t) UCL	--
199-K-18	Rad	Nickel-63	13981-37-8	1	1	0	100	pCi/L	--	--	4.2	4.2	0	4.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel-63 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-18	Rad	Technetium-99	14133-76-7	8	1	7	13	pCi/L	6.5	10.0	55	55	0	55	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-18	Rad	Tritium	10028-17-8	16	16	0	100	pCi/L	--	--	3,050	290,000	1.1	154,441	95% Adjusted Gamma UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-182	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	10	10	10	15	0.25	15	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-182	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	3.2	4.8	0.14	4.7	95% Student's-t UCL	--
199-K-182	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	32	45	0.085	37	95% Modified-t UCL	--
199-K-182	non-Rad	Beryllium	7440-41-7	5	1	4	20	ug/L	0.050	0.28	0.50	0.50	0	0.50	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-182	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.25	0.25	0.94	0.94	0	0.94	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-182	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	0.93	1.1	0.085	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-182	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	33	84	0.32	67	95% Student's-t UCL	--
199-K-182	non-Rad	Cobalt	7440-48-4	5	1	4	20	ug/L	0.10	2.7	0.082	0.082	0	0.082	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-182	non-Rad	Copper	7440-50-8	5	2	3	40	ug/L	0.10	2.4	0.38	6.9	1.3	6.9	Maximum Detect	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-182	non-Rad	Fluoride	16984-49-8	13	12	1	92	ug/L	60	60	113	220	0.21	188	95% KM (t) UCL	--
199-K-182	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	26	81	0.37	63	95% Student's-t UCL	--
199-K-182	non-Rad	Iron	7439-89-6	15	3	12	20	ug/L	13	40	13	42	0.51	22	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-182	non-Rad	Lithium	7439-93-2	3	2	1	67	ug/L	4.0	4.0	8.0	16	0.47	16	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-182	non-Rad	Manganese	7439-96-5	15	1	14	7	ug/L	0.70	6.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-182	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	4.2	4.5	0.040	4.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-182	non-Rad	Nickel	7440-02-0	15	3	12	20	ug/L	1.5	10	3.2	4.8	0.21	3.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-182	non-Rad	Nitrate	14797-55-8	13	13	0	100	ug/L	--	--	12,000	19,900	0.16	17,489	95% Student's-t UCL	--
199-K-182	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	1.3	1.9	0.17	1.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-182	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	239	350	0.093	289	95% Student's-t UCL	--
199-K-182	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.3	2.3	0.0062	2.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-182	non-Rad	Vanadium	7440-62-2	15	15	0	100	ug/L	--	--	11	28	0.22	19	95% Student's-t UCL	--
199-K-182	non-Rad	Zinc	7440-66-6	15	7	8	47	ug/L	3.3	8.3	5.2	398	1.9	155	95% KM (Chebyshev) UCL	--
199-K-182	Rad	Strontium-90	10098-97-2	14	1	13	7	pCi/L	0.57	2.2	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-182	Rad	Tritium	10028-17-8	15	15	0	100	pCi/L	--	--	538	4,300	0.77	2,773	95% Adjusted Gamma UCL	--
199-K-182	Rad	Uranium-233/234	U-233/234	2	2	0	100	pCi/L	--	--	1.1	1.3	0.12	1.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-182	Rad	Uranium-235	15117-96-1	2	2	0	100	pCi/L	--	--	0.071	0.098	0.23	0.098	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-182	Rad	Uranium-238	U-238	2	2	0	100	pCi/L	--	--	0.69	0.74	0.049	0.74	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-183	non-Rad	2-Butanone	78-93-3	25	1	24	4	ug/L	0.52	3.0	0.71	0.71	0	0.71	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-183	non-Rad	Aluminum	7429-90-5	21	2	19	10	ug/L	10	20	20	59	0.71	27	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-183	non-Rad	Antimony	7440-36-0	21	1	20	5	ug/L	0.60	1.7	0.51	0.51	0	0.51	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-183	non-Rad	Arsenic	7440-38-2	21	20	1	95	ug/L	1.7	1.7	1.8	5.1	0.21	3.8	95% KM (t) UCL	--
199-K-183	non-Rad	Barium	7440-39-3	25	25	0	100	ug/L	--	--	39	64	0.13	54	95% Student's-t UCL	--
199-K-183	non-Rad	Boron	7440-42-8	14	11	3	79	ug/L	15	15	13	46	0.51	22	95% KM (BCA) UCL	--
199-K-183	non-Rad	Chloroform	67-66-3	25	11	14	44	ug/L	0.30	1.0	0.28	0.40	0.11	0.35	95% KM (t) UCL	--
199-K-183	non-Rad	Chromium	7440-47-3	25	25	0	100	ug/L	--	--	2.9	11	0.22	8.7	95% Student's-t UCL	--
199-K-183	non-Rad	Cobalt	7440-48-4	21	3	18	14	ug/L	0.10	0.22	0.11	0.16	0.22	0.11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-183	non-Rad	Copper	7440-50-8	21	12	9	57	ug/L	0.20	0.56	0.36	3.2	0.84	1.1	95% KM H-UCL	--
199-K-183	non-Rad	Fluoride	16984-48-8	21	21	0	100	ug/L	--	--	82	200	0.25	166	95% Student's-t UCL	--
199-K-183	non-Rad	Hexavalent Chromium	18540-29-9	25	24	1	96	ug/L	3.7	3.7	5.0	10	0.15	8.0	95% KM (t) UCL	--
199-K-183	non-Rad	Iron	7439-89-6	13	2	11	15	ug/L	16	30	21	31	0.27	24	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-183	non-Rad	Manganese	7439-96-5	17	1	16	6	ug/L	0.20	4.0	0.48	0.48	0	0.48	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-183	non-Rad	Methylene chloride	75-09-2	25	2	23	8	ug/L	0.27	1.6	1.7	1.8	0.037	0.58	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-183	non-Rad	Molybdenum	7439-98-7	21	20	1	95	ug/L	0.10	0.10	1.1	3.5	0.37	2.4	95% KM H-UCL	--
199-K-183	non-Rad	Nickel	7440-02-0	17	7	10	41	ug/L	0.20	1.6	0.35	4.0	0.89	1.2	95% KM (t) UCL	--
199-K-183	non-Rad	Nitrate	14797-55-8	21	21	0	100	ug/L	--	--	23,900	27,000	0.032	25,486	95% Student's-t UCL	--
199-K-183	non-Rad	Nitrite	14797-65-0	21	5	16	24	ug/L	9.9	131	178	263	0.17	96	95% KM (t) UCL	--
199-K-183	non-Rad	Selenium	7782-49-2	21	5	16	24	ug/L	1.5	2.0	1.3	2.5	0.26	1.6	95% KM (t) UCL	--
199-K-183	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	199	265	0.068	244	95% Student's-t UCL	--
199-K-183	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.050	0.55	1.5	1.5	0	1.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-183	non-Rad	Tin	7440-31-5	21	2	19	10	ug/L	0.10	1.0	0.27	4.4	1.2	1.6	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-183	non-Rad	Trichloroethene	79-01-6	25	25	0	100	ug/L	--	--	2.9	5.1	0.14	4.2	95% Student's-t UCL	--
199-K-183	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	1.4	2.0	0.11	1.7	95% Student's-t UCL	--
199-K-183	non-Rad	Vanadium	7440-62-2	15	15	0	100	ug/L	--	--	9.3	13	0.095	11	95% Student's-t UCL	--
199-K-183	non-Rad	Zinc	7440-66-6	17	2	15	12	ug/L	3.3	8.3	2.1	4.8	0.56	3.4	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-183	Rad	Carbon-14	14762-75-5	24	24	0	100	pCi/L	--	--	253	555	0.16	464	95% Student's-t UCL	--
199-K-183	Rad	Strontium-90	10098-97-2	25	2	23	8	pCi/L	0.57	2.0	1.2	1.6	0.20	0.80	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-183	Rad	Technetium-99	14133-76-7	22	21	1	95	pCi/L	45	45	32	76	0.20	56	95% KM (t) UCL	--
199-K-183	Rad	Tritium	10028-17-8	25	25	0	100	pCi/L	--	--	1,130	2,020	0.16	1,622	95% Student's-t UCL	--
199-K-184	non-Rad	2-Butanone	78-93-3	26	2	24	8	ug/L	0.47	3.0	0.55	0.98	0.40	0.61	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-184	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	19	19	0	19	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-184	non-Rad	Acetone	67-64-1	26	4	22	15	ug/L	0.34	5.0	0.60	2.1	0.58	0.73	95% KM (t) UCL	--
199-K-184	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	1.8	3.3	0.29	3.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-184	non-Rad	Barium	7440-39-3	26	26	0	100	ug/L	--	--	47	83	0.16	65	95% Adjusted Gamma UCL	--
199-K-184	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	14	14	0	14	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-184	non-Rad	Carbon disulfide	75-15-0	26	1	25	4	ug/L	0.050	1.6	0.31	0.31	0	0.31	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon disulfide was not processed!
199-K-184	non-Rad	Chloroform	67-66-3	26	15	11	58	ug/L	1.0	1.0	0.25	0.46	0.21	0.36	95% KM (t) UCL	--
199-K-184	non-Rad	Chromium	7440-47-3	25	25	0	100	ug/L	--	--	5.7	41	0.62	22	95% Student's-t UCL	--
199-K-184	non-Rad	Copper	7440-50-8	3	1	2	33	ug/L	2.1	2.1	0.38	0.38	0	0.38	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-184	non-Rad	Fluoride	16984-48-8	24	24	0	100	ug/L	--	--	81	200	0.20	169	95% Student's-t UCL	--
199-K-184	non-Rad	Hexavalent Chromium	18540-29-9	25	25	0	100	ug/L	--	--	4.6	37	0.64	15	95% Student's-t UCL	--
199-K-184	non-Rad	Iron	7439-89-6	26	13	13	50	ug/L	13	40	19	330	0.78	161	95% GROS Adjusted Gamma UCL	--
199-K-184	non-Rad	Manganese	7439-96-5	26	7	19	27	ug/L	0.84	4.0	1.5	12	0.54	3.5	95% KM (t) UCL	--
199-K-184	non-Rad	Methylene chloride	75-09-2	26	1	25	4	ug/L	0.27	1.6	0.33	0.33	0	0.33	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-184	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-184	non-Rad	Nickel	7440-02-0	26	13	13	50	ug/L	0.50	67	2.0	41	1.00	14	95% Gamma Adjusted KM-UCL	--
199-K-184	non-Rad	Nitrate	14797-55-8	24	24	0	100	ug/L	--	--	13,800	24,300	0.12	22,418	95% Student's-t UCL	--
199-K-184	non-Rad	Nitrite	14797-65-0	24	9	15	38	ug/L	20	131	66	4,010	2.1	994	95% KM (Chebyshev) UCL	--
199-K-184	non-Rad	Silver	7440-22-4	26	2	24	8	ug/L	0.20	6.0	1.8	4.5	0.61	2.0	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-184	non-Rad	Strontium	7440-24-6	23	23	0	100	ug/L	--	--	209	362	0.13	318	95% Student's-t UCL	--
199-K-184	non-Rad	Trichloroethene	79-01-6	26	26	0	100	ug/L	--	--	0.70	5.1	0.24	4.0	95% Student's-t UCL	--
199-K-184	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.1	2.5	0.13	2.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-184	non-Rad	Vanadium	7440-62-2	26	23	3	88	ug/L	10	15	7.0	20	0.25	13	95% KM (t) UCL	--
199-K-184	non-Rad	Zinc	7440-66-6	26	6	20	23	ug/L	3.3	8.3	5.8	24	0.57	7.1	95% KM (t) UCL	--
199-K-184	Rad	Carbon-14	14762-75-5	26	26	0	100	pCi/L	--	--	185	782	0.38	581	95% Student's-t UCL	--
199-K-184	Rad	Strontium-90	10098-97-2	26	1	25	4	pCi/L	0.37	1.9	0.92	0.92	0	0.92	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-184	Rad	Technetium-99	14133-76-7	23	23	0	100	pCi/L	--	--	14	54	0.26	40	95% Student's-t UCL	--
199-K-184	Rad	Tritium	10028-17-8	26	26	0	100	pCi/L	--	--	877	1,700	0.15	1,411	95% Student's-t UCL	--
199-K-184	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.84	0.84	0	0.84	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-184	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.59	0.59	0	0.59	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-185	non-Rad	2-Butanol	78-92-2	1	1	0	100	ug/L	--	--	21	21	0	21	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-185	non-Rad	2-Butanone	78-93-3	30	1	29	3	ug/L	0.47	3.0	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-185	non-Rad	2-Propanol	67-63-0	2	1	1	50	ug/L	250	250	74	74	0	74	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-185	non-Rad	Acetone	67-64-1	30	2	28	7	ug/L	0.55	5.0	1.4	2.5	0.40	1.2	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-185	non-Rad	Aluminum	7429-90-5	21	7	14	33	ug/L	5.0	20	11	207	1.4	58	95% Gamma Adjusted KM-UCL	--
199-K-185	non-Rad	Arsenic	7440-38-2	21	19	2	90	ug/L	1.7	1.7	2.0	4.1	0.18	3.2	95% KM (t) UCL	--
199-K-185	non-Rad	Barium	7440-39-3	25	25	0	100	ug/L	--	--	31	56	0.12	42	95% Adjusted Gamma UCL	--
199-K-185	non-Rad	Boron	7440-42-8	13	9	4	69	ug/L	15	15	11	57	0.64	26	95% KM (t) UCL	--
199-K-185	non-Rad	Chloroform	67-66-3	30	15	15	50	ug/L	0.30	1.0	0.20	0.47	0.19	0.36	95% KM (t) UCL	--
199-K-185	non-Rad	Chromium	7440-47-3	26	25	1	96	ug/L	5.1	5.1	13	26	0.26	7.4	95% KM (t) UCL	--
199-K-185	non-Rad	Cobalt	7440-48-4	21	8	13	38	ug/L	0.10	0.22	0.10	0.42	0.54	0.17	95% KM Adjusted Gamma UCL	--
199-K-185	non-Rad	Copper	7440-50-8	21	14	7	67	ug/L	0.10	0.35	0.31	1.9	0.62	0.93	95% GROS Adjusted Gamma UCL	--
199-K-185	non-Rad	Fluoride	16984-48-8	26	26	0	100	ug/L	--	--	92	232	0.25	176	95% Student's-t UCL	--
199-K-185	non-Rad	Hexavalent Chromium	18540-29-9	28	26	2	93	ug/L	2.0	8.0	2.8	10	0.31	6.5	95% KM (t) UCL	--
199-K-185	non-Rad	Iron	7439-89-6	13	3	10	23	ug/L	20	30	130	891	0.84	268	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-185	non-Rad	Manganese	7439-96-5	17	7	10	41	ug/L	1.0	4.1	0.40	162	2.1	77	95% Gamma Adjusted KM-UCL	--
199-K-185	non-Rad	Methylene chloride	75-09-2	30	2	28	7	ug/L	0.27	1.6	1.7	4.3	0.61	1.3	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-185	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	1.3	3.7	0.25	2.6	95% Student's-t UCL	--
199-K-185	non-Rad	Nickel	7440-02-0	17	11	6	65	ug/L	0.50	1.6	0.39	10	1.3	5.0	95% KM (Chebyshev) UCL	--
199-K-185	non-Rad	Nitrate	14797-55-8	26	26	0	100	ug/L	--	--	19,000	75,300	0.49	36,503	95% Modified-t UCL	--
199-K-185	non-Rad	Nitrite	14797-65-0	26	7	19	27	ug/L	9.9	131	144	275	0.20	98	95% KM (t) UCL	--
199-K-185	non-Rad	Selenium	7782-49-2	21	1	20	5	ug/L	1.0	2.0	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-185	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	224	364	0.15	290	95% Adjusted Gamma UCL	--
199-K-185	non-Rad	Tin	7440-31-5	21	5	16	24	ug/L	0.050	1.0	0.24	3.2	1.1	0.66	95% KM (t) UCL	--
199-K-185	non-Rad	Trichloroethene	79-01-6	30	30	0	100	ug/L	--	--	2.9	9.5	0.22	7.1	95% Student's-t UCL	--
199-K-185	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	2.3	7.4	0.43	4.2	95% Modified-t UCL	--
199-K-185	non-Rad	Vanadium	7440-62-2	15	15	0	100	ug/L	--	--	6.3	14	0.19	12	95% Student's-t UCL	--
199-K-185	non-Rad	Zinc	7440-66-6	17	2	15	12	ug/L	3.3	8.3	5.8	10	0.38	4.8	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-185	Rad	Carbon-14	14762-75-5	30	30	0	100	pCi/L	--	--	175	6,140	1.3	2,203	95% Chebyshev (Mean, Sd) UCL	--
199-K-185	Rad	Strontium-90	10098-97-2	25	2	23	8	pCi/L	0.43	1.9	3.0	3.1	0.023	0.98	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-185	Rad	Technetium-99	14133-76-7	23	20	3	87	pCi/L	34	42	34	64	0.15	50	95% KM (t) UCL	--
199-K-185	Rad	Tritium	10028-17-8	30	26	4	87	pCi/L	304	329	332	1,100	0.22	742	95% KM (t) UCL	--
199-K-186	non-Rad	Acetone	67-64-1	7	1	6	14	ug/L	0.34	5.0	0.61	0.61	0	0.61	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-186	non-Rad	Aluminum	7429-90-5	21	19	2	90	ug/L	10	14	10	111	0.68	71	95% GROS Adjusted Gamma UCL	--
199-K-186	non-Rad	Antimony	7440-36-0	21	2	19	10	ug/L	0.084	1.7	0.11	0.18	0.34	0.18	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-186	non-Rad	Arsenic	7440-38-2	21	21	0	100	ug/L	--	--	2.5	5.8	0.18	4.3	95% Student's-t UCL	--
199-K-186	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	25	34	0.085	30	95% Student's-t UCL	--
199-K-186	non-Rad	Boron	7440-42-8	14	7	7	50	ug/L	6.4	10	8.9	16	0.19	10	95% KM (t) UCL	--
199-K-186	non-Rad	Chloroform	67-66-3	7	5	2	71	ug/L	1.0	1.0	0.63	1.8	0.51	1.3	95% KM (t) UCL	--
199-K-186	non-Rad	Chromium	7440-47-3	22	22	0	100	ug/L	--	--	7.2	32	0.43	23	95% Student's-t UCL	--
199-K-186	non-Rad	Cobalt	7440-48-4	21	4	17	19	ug/L	0.070	0.22	0.070	3.8	1.8	1.1	95% KM (Chebyshev) UCL	--
199-K-186	non-Rad	Copper	7440-50-8	21	7	14	33	ug/L	0.20	1.1	0.28	1.5	0.52	0.57	95% KM (t) UCL	--
199-K-186	non-Rad	Fluoride	16984-48-8	21	19	2	90	ug/L	72	72	78	250	0.27	197	95% KM (t) UCL	--
199-K-186	non-Rad	Hexavalent Chromium	18540-29-9	22	22	0	100	ug/L	--	--	3.9	31	0.47	21	95% Student's-t UCL	--
199-K-186	non-Rad	Iron	7439-89-6	10	9	1	90	ug/L	20	20	34	150	0.52	90	95% KM (t) UCL	--
199-K-186	non-Rad	Manganese	7439-96-5	14	13	1	93	ug/L	0.30	0.30	1.6	100	2.5	40	95% KM (Chebyshev) UCL	--
199-K-186	non-Rad	Methylene chloride	75-09-2	7	1	6	14	ug/L	0.27	1.0	0.38	0.38	0	0.38	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-186	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	0.77	6.2	0.41	3.0	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-186	non-Rad	Nickel	7440-02-0	14	3	11	21	ug/L	0.20	4.2	0.46	9.0	1.4	2.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-186	non-Rad	Nitrate	14797-55-8	21	21	0	100	ug/L	--	--	1,650	9,300	0.35	7,659	95% Student's-t UCL	--
199-K-186	non-Rad	Nitrite	14797-65-0	21	6	15	29	ug/L	9.9	131	167	427	0.36	137	95% KM (t) UCL	--
199-K-186	non-Rad	Selenium	7782-49-2	21	3	18	14	ug/L	0.66	2.0	0.72	2.6	0.72	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-186	non-Rad	Silver	7440-22-4	22	1	21	5	ug/L	0.039	5.1	0.30	0.30	0	0.30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-186	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	178	279	0.15	237	95% Student's-t UCL	--
199-K-186	non-Rad	Tin	7440-31-5	21	2	19	10	ug/L	0.10	1.3	0.10	0.29	0.69	0.25	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-186	non-Rad	Trichloroethene	79-01-6	7	3	4	43	ug/L	0.16	1.0	0.47	0.64	0.15	0.64	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-186	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	1.9	2.8	0.13	2.5	95% Student's-t UCL	--
199-K-186	non-Rad	Vanadium	7440-62-2	12	11	1	92	ug/L	8.1	8.1	5.2	15	0.25	13	95% KM (t) UCL	--
199-K-186	non-Rad	Zinc	7440-66-6	14	1	13	7	ug/L	3.5	9.3	14	14	0	14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-186	Rad	Carbon-14	14762-75-5	22	20	2	91	pCi/L	35	55	18	151	0.53	103	95% GROS Adjusted Gamma UCL	--
199-K-186	Rad	Strontium-90	10098-97-2	22	3	19	14	pCi/L	0.38	2.0	1.4	1.6	0.075	0.74	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-186	Rad	Tritium	10028-17-8	22	6	16	27	pCi/L	260	360	121	1,560	0.90	384	95% KM (t) UCL	--
199-K-187	non-Rad	Aluminum	7429-90-5	21	4	17	19	ug/L	10	20	10	180	1.2	36	95% KM (t) UCL	--
199-K-187	non-Rad	Arsenic	7440-38-2	21	20	1	95	ug/L	1.7	3.5	5.9	5.9	0.18	4.8	95% KM (t) UCL	--
199-K-187	non-Rad	Barium	7440-39-3	24	24	0	100	ug/L	--	--	31	47	0.092	36	95% Student's-t UCL	--
199-K-187	non-Rad	Boron	7440-42-8	14	8	6	57	ug/L	15	15	13	20	0.15	15	95% KM (t) UCL	--
199-K-187	non-Rad	Chloroform	67-66-3	8	1	7	13	ug/L	0.30	1.0	0.21	0.21	0	0.21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!
199-K-187	non-Rad	Chromium	7440-47-3	24	24	0	100	ug/L	--	--	4.6	23	0.48	12	95% Adjusted Gamma UCL	--
199-K-187	non-Rad	Cobalt	7440-48-4	21	6	15	29	ug/L	0.10	0.22	0.12	0.20	0.17	0.13	95% KM (t) UCL	--
199-K-187	non-Rad	Copper	7440-50-8	21	11	10	52	ug/L	0.20	0.45	0.22	0.95	0.45	0.50	95% KM (t) UCL	--
199-K-187	non-Rad	Fluoride	16984-48-8	20	20	0	100	ug/L	--	--	134	280	0.20	242	95% Student's-t UCL	--
199-K-187	non-Rad	Hexavalent Chromium	18540-29-9	24	20	4	83	ug/L	2.0	8.0	2.8	53	1.6	16	95% KM (Chebyshev) UCL	--
199-K-187	non-Rad	Iron	7439-89-6	12	8	4	67	ug/L	30	30	34	837	1.5	786	95% KM Bootstrap t UCL	--
199-K-187	non-Rad	Manganese	7439-96-5	16	11	5	69	ug/L	1.0	1.0	0.49	36	1.7	15	95% KM (Chebyshev) UCL	--
199-K-187	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	3.7	9.4	0.27	5.6	95% Modified-t UCL	--
199-K-187	non-Rad	Nickel	7440-02-0	16	15	1	94	ug/L	5.1	5.1	0.90	17	0.85	7.7	95% KM Adjusted Gamma UCL	--
199-K-187	non-Rad	Nitrate	14797-55-8	20	20	0	100	ug/L	--	--	15,700	24,300	0.11	22,276	95% Student's-t UCL	--
199-K-187	non-Rad	Nitrite	14797-65-0	20	7	13	35	ug/L	9.9	131	95	308	0.36	140	95% KM (t) UCL	--
199-K-187	non-Rad	Selenium	7782-49-2	21	6	15	29	ug/L	1.5	2.0	1.5	3.5	0.32	2.0	95% KM (t) UCL	--
199-K-187	non-Rad	Silver	7440-22-4	24	2	22	8	ug/L	0.10	5.1	0.088	13	1.4	8.0	99% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-187	non-Rad	Strontium	7440-24-6	16	16	0	100	ug/L	--	--	175	242	0.094	202	95% Adjusted Gamma UCL	--
199-K-187	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.10	0.60	0.63	0.63	0	0.63	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-187	non-Rad	Tin	7440-31-5	21	3	18	14	ug/L	0.10	1.0	0.14	1.9	1.2	0.39	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-187	non-Rad	Trichloroethene	79-01-6	8	5	3	63	ug/L	1.0	1.0	1.5	1.6	0.033	1.6	95% KM (t) UCL	--
199-K-187	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	2.7	3.3	0.057	3.0	95% Student's-t UCL	--
199-K-187	non-Rad	Vanadium	7440-62-2	14	14	0	100	ug/L	--	--	9.0	15	0.100	13	95% Student's-t UCL	--
199-K-187	non-Rad	Zinc	7440-66-6	16	3	13	19	ug/L	3.5	8.3	4.0	5.0	0.13	3.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-187	Rad	Strontium-90	10098-97-2	24	7	17	29	pCi/L	0.66	1.9	1.2	4.5	0.50	1.7	95% KM (t) UCL	--
199-K-187	Rad	Technetium-99	14133-76-7	24	24	0	100	pCi/L	--	--	16	65	0.28	50	95% Student's-t UCL	--
199-K-187	Rad	Tritium	10028-17-8	24	23	1	96	pCi/L	250	250	280	1,000	0.30	746	95% KM (t) UCL	--
199-K-188	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	2.1	4.1	0.46	4.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-188	non-Rad	Barium	7440-39-3	16	16	0	100	ug/L	--	--	33	51	0.12	43	95% Student's-t UCL	--
199-K-188	non-Rad	Chloroform	67-66-3	6	3	3	50	ug/L	1.0	1.0	0.22	0.32	0.18	0.32	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-188	non-Rad	Chromium	7440-47-3	15	15	0	100	ug/L	--	--	9.0	44	0.45	31	95% Student's-t UCL	--
199-K-188	non-Rad	Fluoride	16984-48-8	15	15	0	100	ug/L	--	--	344	500	0.10	416	95% Student's-t UCL	--
199-K-188	non-Rad	Hexavalent Chromium	18540-29-9	15	15	0	100	ug/L	--	--	8.3	44	0.48	30	95% Student's-t UCL	--
199-K-188	non-Rad	Iron	7439-89-6	16	12	4	75	ug/L	13	30	16	242	0.80	91	95% KM (t) UCL	--
199-K-188	non-Rad	Manganese	7439-96-5	16	13	3	81	ug/L	1.0	4.0	1.0	32	1.2	13	95% Gamma Adjusted KM-UCL	--
199-K-188	non-Rad	Nickel	7440-02-0	16	6	10	38	ug/L	1.5	10	3.6	8.0	0.31	4.3	95% KM (t) UCL	--
199-K-188	non-Rad	Nitrate	14797-55-8	15	15	0	100	ug/L	--	--	17,700	21,700	0.057	20,315	95% Student's-t UCL	--
199-K-188	non-Rad	Nitrite	14797-65-0	15	1	14	7	ug/L	20	131	172	172	0	172	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-188	non-Rad	Strontium	7440-24-6	16	16	0	100	ug/L	--	--	170	312	0.16	223	95% Modified-t UCL	--
199-K-188	non-Rad	Trichloroethene	79-01-6	6	5	1	83	ug/L	1.0	1.0	1.5	2.0	0.11	1.9	95% KM (t) UCL	--
199-K-188	non-Rad	Vanadium	7440-62-2	16	16	0	100	ug/L	--	--	9.2	15	0.16	13	95% Student's-t UCL	--
199-K-188	non-Rad	Zinc	7440-66-6	16	4	12	25	ug/L	3.0	8.3	5.4	21	0.74	7.2	95% KM (t) UCL	--
199-K-188	Rad	Carbon-14	14762-75-5	16	16	0	100	pCi/L	--	--	51	103	0.22	89	95% Student's-t UCL	--
199-K-188	Rad	Strontium-90	10098-97-2	16	2	14	13	pCi/L	0.32	2.1	1.3	1.6	0.15	0.76	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Machle, and Lee (2006).
199-K-188	Rad	Technetium-99	14133-76-7	16	15	1	94	pCi/L	6.3	6.3	9.6	37	0.36	27	95% KM (t) UCL	--
199-K-188	Rad	Tritium	10028-17-8	16	13	3	81	pCi/L	280	340	370	638	0.16	494	95% KM (t) UCL	--
199-K-189	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	5.2	5.2	0	5.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-189	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	24	35	0.11	30	95% Student's-t UCL	--
199-K-189	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-189	non-Rad	Chromium	7440-47-3	21	19	2	90	ug/L	5.0	5.0	2.4	42	0.88	24	95% GROS Adjusted Gamma UCL	--
199-K-189	non-Rad	Fluoride	16984-48-8	18	18	0	100	ug/L	--	--	72	220	0.27	177	95% Student's-t UCL	--
199-K-189	non-Rad	Hexavalent Chromium	18540-29-9	21	21	0	100	ug/L	--	--	1.5	35	0.97	24	95% Chebyshev (Mean, Sd) UCL	--
199-K-189	non-Rad	Iron	7439-89-6	22	4	18	18	ug/L	19	40	20	148	0.72	43	95% KM (t) UCL	--
199-K-189	non-Rad	Manganese	7439-96-5	22	1	21	5	ug/L	1.0	4.1	0.79	0.79	0	0.79	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-189	non-Rad	Nickel	7440-02-0	22	3	19	14	ug/L	1.3	13	4.5	7.2	0.25	2.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-189	non-Rad	Nitrate	14797-55-8	18	18	0	100	ug/L	--	--	6,460	43,400	0.53	28,756	95% Student's-t UCL	--
199-K-189	non-Rad	Nitrite	14797-65-0	18	4	14	22	ug/L	125	131	165	262	0.22	165	95% KM (t) UCL	--
199-K-189	non-Rad	Strontium	7440-24-6	22	22	0	100	ug/L	--	--	165	257	0.14	226	95% Student's-t UCL	--
199-K-189	non-Rad	Vanadium	7440-62-2	22	21	1	95	ug/L	10	10	7.7	14	0.18	12	95% KM (t) UCL	--
199-K-189	non-Rad	Zinc	7440-66-6	22	1	21	5	ug/L	3.3	8.3	9.9	9.9	0	9.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-189	Rad	Carbon-14	14762-75-5	22	22	0	100	pCi/L	--	--	66	3,260	0.72	1,960	95% Student's-t UCL	--
199-K-189	Rad	Strontium-90	10098-97-2	22	3	19	14	pCi/L	0.48	2.0	0.99	3.9	0.80	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-189	Rad	Technetium-99	14133-76-7	22	3	19	14	pCi/L	5.5	34	6.1	25	0.73	9.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-189	Rad	Tritium	10028-17-8	22	21	1	95	pCi/L	337	337	510	47,900	0.86	37,092	95% KM (Chebyshev) UCL	--
199-K-19	non-Rad	Aluminum	7429-90-5	13	10	3	77	ug/L	15	20	13	200	1.0	70	95% KM (t) UCL	--
199-K-19	non-Rad	Antimony	7440-36-0	13	2	11	15	ug/L	0.60	15	0.15	0.18	0.13	0.18	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev (Mean, Sd) UCLs were not calculated.
199-K-19	non-Rad	Arsenic	7440-38-2	13	8	5	62	ug/L	1.2	10	0.67	1.1	0.17	0.98	95% KM (t) UCL	--
199-K-19	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	24	32	0.098	28	95% Student's-t UCL	--
199-K-19	non-Rad	Boron	7440-42-8	8	7	1	88	ug/L	6.4	6.4	7.5	12	0.18	11	95% KM (t) UCL	--
199-K-19	non-Rad	Cadmium	7440-43-9	13	1	12	8	ug/L	0.099	1.0	0.13	0.13	0	0.13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-19	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	4.5	15	0.39	10	95% Student's-t UCL	--
199-K-19	non-Rad	Cobalt	7440-48-4	13	4	9	31	ug/L	0.10	2.0	0.12	0.29	0.43	0.16	95% KM (t) UCL	--
199-K-19	non-Rad	Copper	7440-50-8	13	3	10	23	ug/L	0.20	10	0.36	3.4	1.2	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-19	non-Rad	Fluoride	16984-48-8	11	8	3	73	ug/L	46	100	54	130	0.24	103	95% KM (t) UCL	--
199-K-19	non-Rad	Hexavalent Chromium	18540-29-9	13	12	1	92	ug/L	8.0	8.0	1.8	11	0.47	7.5	95% KM (t) UCL	--
199-K-19	non-Rad	Iron	7439-89-6	6	6	0	100	ug/L	--	--	92	590	0.84	407	95% Student's-t UCL	--
199-K-19	non-Rad	Manganese	7439-96-5	8	8	0	100	ug/L	--	--	4.0	16	0.38	13	95% Student's-t UCL	--
199-K-19	non-Rad	Molybdenum	7439-98-7	13	12	1	92	ug/L	0.10	0.10	1.1	2.1	0.22	1.7	95% KM (t) UCL	--
199-K-19	non-Rad	Nickel	7440-02-0	8	3	5	38	ug/L	0.20	4.2	0.72	14	1.2	6.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-19	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	19,500	29,500	0.14	25,736	95% Student's-t UCL	--
199-K-19	non-Rad	Nitrite	14797-65-0	11	1	10	9	ug/L	20	131	148	148	0	148	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-19	non-Rad	Selenium	7782-49-2	13	6	7	46	ug/L	1.5	10	1.1	4.1	0.59	2.1	95% KM (t) UCL	--
199-K-19	non-Rad	Silver	7440-22-4	13	1	12	8	ug/L	0.039	5.0	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-19	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	258	294	0.041	286	95% Student's-t UCL	--
199-K-19	non-Rad	Tin	7440-31-5	13	3	10	23	ug/L	0.10	5.0	0.13	2.9	0.99	0.95	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-19	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	1.8	2.1	0.053	2.1	95% Student's-t UCL	--
199-K-19	non-Rad	Vanadium	7440-62-2	7	5	2	71	ug/L	4.4	4.4	1.9	5.0	0.40	3.7	95% KM (t) UCL	--
199-K-19	non-Rad	Zinc	7440-66-6	8	8	0	100	ug/L	--	--	216	432	0.23	387	95% Student's-t UCL	--
199-K-19	Rad	Carbon-14	14762-75-5	7	4	3	57	pCi/L	17	56	8.8	26	0.48	21	95% KM (t) UCL	--
199-K-19	Rad	Strontium-90	10098-97-2	7	7	0	100	pCi/L	--	--	12	15	0.083	15	95% Student's-t UCL	--
199-K-19	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	1,500	4,800	0.44	4,002	95% Student's-t UCL	--
199-K-190	non-Rad	Acetone	67-64-1	9	2	7	22	ug/L	0.34	5.0	3.4	11	0.75	9.0	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-190	non-Rad	Aluminum	7429-90-5	21	5	16	24	ug/L	10	20	10	117	1.1	27	95% KM (t) UCL	--
199-K-190	non-Rad	Arsenic	7440-38-2	21	21	0	100	ug/L	--	--	3.6	5.3	0.13	4.6	95% Student's-t UCL	--
199-K-190	non-Rad	Barium	7440-39-3	23	23	0	100	ug/L	--	--	36	51	0.098	43	95% Student's-t UCL	--
199-K-190	non-Rad	Boron	7440-42-8	14	10	4	71	ug/L	15	15	12	66	0.77	36	95% KM (Chebyshev) UCL	--
199-K-190	non-Rad	Cadmium	7440-43-9	21	1	20	5	ug/L	0.050	0.30	0.18	0.18	0	0.18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-190	non-Rad	Chloroform	67-66-3	9	5	4	56	ug/L	1.0	1.0	0.42	0.70	0.23	0.60	95% KM (t) UCL	--
199-K-190	non-Rad	Chromium	7440-47-3	23	23	0	100	ug/L	--	--	8.0	17	0.21	14	95% Student's-t UCL	--
199-K-190	non-Rad	Cobalt	7440-48-4	21	1	20	5	ug/L	0.050	0.22	0.65	0.65	0	0.65	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-190	non-Rad	Copper	7440-50-8	21	17	4	81	ug/L	0.20	0.35	0.21	0.92	0.41	0.48	95% KM (t) UCL	--
199-K-190	non-Rad	Fluoride	16984-48-8	23	23	0	100	ug/L	--	--	116	262	0.25	227	95% Student's-t UCL	--
199-K-190	non-Rad	Hexavalent Chromium	18540-29-9	23	23	0	100	ug/L	--	--	7.6	18	0.22	13	95% Student's-t UCL	--
199-K-190	non-Rad	Iron	7439-89-6	11	2	9	18	ug/L	30	30	19	69	0.80	50	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-190	non-Rad	Manganese	7439-96-5	15	4	11	27	ug/L	0.10	4.0	0.42	6.0	1.2	2.4	95% Gamma Adjusted KM-UCL	--
199-K-190	non-Rad	Methylene chloride	75-09-2	9	1	8	11	ug/L	0.27	1.6	0.34	0.34	0	0.34	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-190	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	2.4	3.2	0.098	2.8	95% Student's-t UCL	--
199-K-190	non-Rad	Nickel	7440-02-0	15	7	8	47	ug/L	0.50	5.1	0.12	1.1	0.63	0.59	95% KM (t) UCL	--
199-K-190	non-Rad	Nitrate	14797-55-8	23	23	0	100	ug/L	--	--	24,700	43,400	0.16	33,573	95% Student's-t UCL	--
199-K-190	non-Rad	Nitrite	14797-65-0	23	4	19	17	ug/L	9.9	131	193	301	0.21	86	95% KM (t) UCL	--
199-K-190	non-Rad	Selenium	7782-49-2	21	1	20	5	ug/L	1.0	2.0	1.6	1.6	0	1.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-190	non-Rad	Silver	7440-22-4	23	1	22	4	ug/L	0.040	5.1	4.0	4.0	0	4.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-190	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	208	276	0.067	246	95% Student's-t UCL	--
199-K-190	non-Rad	Thallium	7440-28-0	21	3	18	14	ug/L	0.050	0.60	0.70	0.97	0.18	0.28	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-190	non-Rad	Tin	7440-31-5	21	2	19	10	ug/L	0.050	1.0	2.2	2.7	0.14	0.66	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-190	non-Rad	Trichloroethene	79-01-6	9	9	0	100	ug/L	--	--	3.7	6.5	0.22	5.4	95% Student's-t UCL	--
199-K-190	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	2.8	3.6	0.077	3.2	95% Student's-t UCL	--
199-K-190	non-Rad	Vanadium	7440-62-2	13	13	0	100	ug/L	--	--	12	17	0.078	16	95% Student's-t UCL	--
199-K-190	non-Rad	Zinc	7440-66-6	15	2	13	13	ug/L	2.0	8.3	5.0	6.1	0.14	3.4	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-190	Rad	Carbon-14	14762-75-5	22	22	0	100	pCi/L	--	--	84	247	0.20	208	95% Student's-t UCL	--
199-K-190	Rad	Strontium-90	10098-97-2	23	4	19	17	pCi/L	0.46	2.0	1.1	4.7	0.68	1.4	95% KM (t) UCL	--
199-K-190	Rad	Technetium-99	14133-76-7	23	21	2	91	pCi/L	35	37	14	54	0.41	32	95% KM (t) UCL	--
199-K-190	Rad	Tritium	10028-17-8	23	22	1	96	pCi/L	340	340	350	908	0.24	681	95% KM (t) UCL	--
199-K-191	non-Rad	Acetone	67-64-1	8	1	7	13	ug/L	0.34	5.0	1.5	1.5	0	1.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-191	non-Rad	Aluminum	7429-90-5	21	10	11	48	ug/L	10	20	5.5	45	0.57	18	95% KM (t) UCL	--
199-K-191	non-Rad	Antimony	7440-36-0	21	4	17	19	ug/L	0.60	2.0	0.23	0.58	0.43	0.49	95% KM (t) UCL	--
199-K-191	non-Rad	Arsenic	7440-38-2	21	20	1	95	ug/L	1.7	1.7	2.9	4.6	0.10	4.1	95% KM (t) UCL	--
199-K-191	non-Rad	Barium	7440-39-3	23	23	0	100	ug/L	--	--	27	40	0.099	36	95% Student's-t UCL	--
199-K-191	non-Rad	Beryllium	7440-41-7	21	1	20	5	ug/L	0.10	0.35	0.30	0.30	0	0.30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-191	non-Rad	Boron	7440-42-8	14	9	5	64	ug/L	6.4	25	7.1	22	0.34	13	95% KM Student's t	--
199-K-191	non-Rad	Chloroform	67-66-3	8	4	4	50	ug/L	1.0	1.0	0.54	0.72	0.12	0.72	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-191	non-Rad	Chromium	7440-47-3	23	21	2	91	ug/L	1.1	4.0	2.9	11	0.31	6.5	95% KM (t) UCL	--
199-K-191	non-Rad	Cobalt	7440-48-4	21	3	18	14	ug/L	0.050	0.90	0.10	0.19	0.34	0.088	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-191	non-Rad	Copper	7440-50-8	21	15	6	71	ug/L	0.20	1.1	0.19	3.4	0.65	1.3	95% KM (t) UCL	--
199-K-191	non-Rad	Fluoride	16984-48-8	21	21	0	100	ug/L	--	--	148	340	0.22	270	95% Student's-t UCL	--
199-K-191	non-Rad	Hexavalent Chromium	18540-29-9	23	19	4	83	ug/L	2.0	8.0	2.3	10	0.39	5.9	95% KM (t) UCL	--
199-K-191	non-Rad	Iron	7439-89-6	11	7	4	64	ug/L	13	38	13	95	0.86	76	95% GROS Adjusted Gamma UCL	--
199-K-191	non-Rad	Manganese	7439-96-5	15	8	7	53	ug/L	0.20	1.0	0.38	36	2.3	18	97.5% KM (Chebyshev) UCL	--
199-K-191	non-Rad	Methylene chloride	75-09-2	8	1	7	13	ug/L	0.27	1.0	1.5	1.5	0	1.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-191	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	5.7	13	0.24	8.8	95% Student's-t UCL	--
199-K-191	non-Rad	Nickel	7440-02-0	15	9	6	60	ug/L	0.20	4.2	0.36	8.0	1.4	3.5	95% KM (Chebyshev) UCL	--
199-K-191	non-Rad	Nitrate	14797-55-8	21	21	0	100	ug/L	--	--	11,300	22,800	0.23	15,616	95% Modified-t UCL	--
199-K-191	non-Rad	Nitrite	14797-65-0	21	4	17	19	ug/L	9.9	131	151	186	0.089	68	95% KM (t) UCL	--
199-K-191	non-Rad	Selenium	7782-49-2	21	5	16	24	ug/L	1.0	2.0	0.72	5.0	0.79	1.6	95% KM (t) UCL	--
199-K-191	non-Rad	Silver	7440-22-4	23	1	22	4	ug/L	0.039	5.1	0.040	0.040	0	0.040	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-191	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	194	253	0.074	233	95% Student's-t UCL	--
199-K-191	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.014	0.90	0.020	0.020	0	0.020	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-191	non-Rad	Tin	7440-31-5	21	2	19	10	ug/L	0.050	1.3	0.12	4.2	1.3	3.0	99% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-191	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	2.0	2.8	0.10	2.4	95% Student's-t UCL	--
199-K-191	non-Rad	Vanadium	7440-62-2	13	10	3	77	ug/L	4.4	15	7.0	12	0.15	12	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-191	non-Rad	Zinc	7440-66-6	15	1	14	7	ug/L	3.5	9.3	10	10	0	10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-191	Rad	Carbon-14	14762-75-5	23	7	16	30	pCi/L	8.0	55	4.4	8.3	0.24	7.0	95% KM (t) UCL	--
199-K-191	Rad	Strontium-90	10098-97-2	23	3	20	13	pCi/L	0.32	2.0	0.98	3.4	0.53	1.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-191	Rad	Tritium	10028-17-8	23	23	0	100	pCi/L	--	--	3,900	7,910	0.20	6,070	95% Student's-t UCL	--
199-K-192	non-Rad	Acetone	67-64-1	7	1	6	14	ug/L	1.0	5.0	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-192	non-Rad	Aluminum	7429-90-5	21	4	17	19	ug/L	10	20	15	20	0.14	13	95% KM (t) UCL	--
199-K-192	non-Rad	Arsenic	7440-38-2	21	21	0	100	ug/L	--	--	7.5	10	0.088	9.0	95% Student's-t UCL	--
199-K-192	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	58	78	0.077	69	95% Student's-t UCL	--
199-K-192	non-Rad	Boron	7440-42-8	14	14	0	100	ug/L	--	--	12	37	0.25	26	95% Modified-t UCL	--
199-K-192	non-Rad	Chromium	7440-47-3	22	21	1	95	ug/L	5.0	5.0	4.8	9.4	0.14	6.6	95% KM Adjusted Gamma UCL	--
199-K-192	non-Rad	Cobalt	7440-48-4	21	3	18	14	ug/L	0.10	0.22	0.19	0.36	0.35	0.15	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-192	non-Rad	Copper	7440-50-8	21	21	0	100	ug/L	--	--	0.83	3.6	0.47	2.0	95% Adjusted Gamma UCL	--
199-K-192	non-Rad	Fluoride	16984-48-8	22	22	0	100	ug/L	--	--	286	450	0.13	407	95% Student's-t UCL	--
199-K-192	non-Rad	Hexavalent Chromium	18540-29-9	22	20	2	91	ug/L	2.0	8.0	2.9	9.0	0.26	6.5	95% KM (t) UCL	--
199-K-192	non-Rad	Iron	7439-89-6	12	1	11	8	ug/L	19	30	34	34	0	34	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-K-192	non-Rad	Manganese	7439-96-5	15	9	6	60	ug/L	1.0	4.0	0.66	13	1.5	5.2	95% Gamma Adjusted KM-UCL	--
199-K-192	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	7.4	11	0.12	9.2	95% Modified-t UCL	--
199-K-192	non-Rad	Nickel	7440-02-0	15	8	7	53	ug/L	0.40	5.0	0.34	4.9	1.1	2.0	95% KM Adjusted Gamma UCL	--
199-K-192	non-Rad	Nitrate	14797-55-8	22	22	0	100	ug/L	--	--	6,240	7,970	0.047	7,298	95% Student's-t UCL	--
199-K-192	non-Rad	Nitrite	14797-65-0	22	5	17	23	ug/L	9.9	131	214	342	0.20	120	95% KM (t) UCL	--
199-K-192	non-Rad	Selenium	7782-49-2	21	8	13	38	ug/L	1.5	2.0	1.7	4.3	0.36	2.2	95% KM (t) UCL	--
199-K-192	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	449	522	0.043	487	95% Student's-t UCL	--
199-K-192	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.10	0.60	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-192	non-Rad	Tin	7440-31-5	21	2	19	10	ug/L	0.10	1.1	0.13	0.25	0.44	0.16	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-192	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	3.0	3.5	0.040	3.3	95% Student's-t UCL	--
199-K-192	non-Rad	Vanadium	7440-62-2	13	13	0	100	ug/L	--	--	18	27	0.088	25	95% Student's-t UCL	--
199-K-192	non-Rad	Zinc	7440-66-6	15	5	10	33	ug/L	3.5	8.3	5.3	16	0.56	6.3	95% KM H-UCL	--
199-K-192	Rad	Strontium-90	10098-97-2	22	1	21	5	pCi/L	0.46	3.2	3.8	3.8	0	3.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-192	Rad	Technetium-99	14133-76-7	22	1	21	5	pCi/L	5.9	35	20	20	0	20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-193	non-Rad	2-Butanone	78-93-3	23	2	21	9	ug/L	0.47	3.0	1.0	1.2	0.13	0.63	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-193	non-Rad	Acetone	67-64-1	23	1	22	4	ug/L	0.34	5.0	6.3	6.3	0	6.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-193	non-Rad	Aluminum	7429-90-5	21	16	5	76	ug/L	10	20	13	80	0.61	32	95% KM (t) UCL	--
199-K-193	non-Rad	Antimony	7440-36-0	21	3	18	14	ug/L	0.60	1.7	0.14	0.16	0.075	0.16	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-193	non-Rad	Arsenic	7440-38-2	21	20	1	95	ug/L	1.7	1.7	3.2	9.9	0.34	4.8	95% KM (BCA) UCL	--
199-K-193	non-Rad	Barium	7440-39-3	23	23	0	100	ug/L	--	--	19	35	0.15	27	95% Student's-t UCL	--
199-K-193	non-Rad	Boron	7440-42-8	14	12	2	86	ug/L	6.4	7.2	6.4	21	0.32	13	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-193	non-Rad	Cadmium	7440-43-9	21	2	19	10	ug/L	0.099	0.11	0.11	0.12	0.061	0.10	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-193	non-Rad	Carbon disulfide	75-15-0	23	1	22	4	ug/L	0.050	1.6	3.3	3.3	0	3.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon disulfide was not processed!
199-K-193	non-Rad	Chloroform	67-66-3	23	9	14	39	ug/L	0.30	1.0	0.24	0.41	0.17	0.32	95% KM (t) UCL	--
199-K-193	non-Rad	Chromium	7440-47-3	23	0	100	0	ug/L	--	--	6.5	63	0.32	44	95% Student's-t UCL	--
199-K-193	non-Rad	Cobalt	7440-48-4	21	11	10	52	ug/L	0.10	0.22	0.090	0.34	0.42	0.17	95% KM (t) UCL	--
199-K-193	non-Rad	Copper	7440-50-8	21	12	9	57	ug/L	0.20	1.1	0.31	2.1	0.56	1.1	95% GROS Adjusted Gamma UCL	--
199-K-193	non-Rad	Ethylbenzene	100-41-4	23	1	22	4	ug/L	0.090	1.0	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-K-193	non-Rad	Fluoride	16984-49-8	20	20	0	100	ug/L	--	--	179	324	0.18	283	95% Student's-t UCL	--
199-K-193	non-Rad	Hexavalent Chromium	18540-29-9	23	23	0	100	ug/L	--	--	6.1	33	0.34	23	95% Student's-t UCL	--
199-K-193	non-Rad	Iron	7439-89-6	11	11	0	100	ug/L	--	--	72	670	0.54	469	95% Student's-t UCL	--
199-K-193	non-Rad	Manganese	7439-96-5	15	15	0	100	ug/L	--	--	2.6	21	0.68	10	95% Adjusted Gamma UCL	--
199-K-193	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	6.2	12	0.17	9.1	95% Student's-t UCL	--
199-K-193	non-Rad	Nickel	7440-02-0	15	14	1	93	ug/L	4.2	4.2	2.7	11	0.40	6.8	95% KM (t) UCL	--
199-K-193	non-Rad	Nitrate	14797-55-8	20	20	0	100	ug/L	--	--	4,380	16,600	0.39	13,049	95% Student's-t UCL	--
199-K-193	non-Rad	Nitrite	14797-65-0	20	4	16	20	ug/L	9.9	131	159	291	0.27	97	95% KM (t) UCL	--
199-K-193	non-Rad	Selenium	7782-49-2	21	19	2	90	ug/L	1.6	2.0	0.85	4.7	0.33	3.1	95% KM (t) UCL	--
199-K-193	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	230	387	0.17	338	95% Student's-t UCL	--
199-K-193	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.014	0.55	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-193	non-Rad	Tin	7440-31-5	21	3	18	14	ug/L	0.10	1.3	0.10	3.0	0.93	0.62	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-193	non-Rad	Toluene	108-88-3	23	1	22	4	ug/L	0.070	1.0	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-193	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	3.0	4.8	0.17	4.3	95% Student's-t UCL	--
199-K-193	non-Rad	Vanadium	7440-62-2	13	12	1	92	ug/L	8.1	8.1	9.9	15	0.14	13	95% KM (t) UCL	--
199-K-193	non-Rad	Xylenes (total)	1330-20-7	23	1	22	4	ug/L	0.20	1.0	2.8	2.8	0	2.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Xylenes (total) was not processed!
199-K-193	non-Rad	Zinc	7440-66-6	15	15	0	100	ug/L	--	--	26	111	0.53	66	95% Adjusted Gamma UCL	--
199-K-193	Rad	Strontium-90	10098-97-2	23	2	21	9	pCi/L	0.31	1.9	1.7	4.9	0.69	1.8	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-193	Rad	Tritium	10028-17-8	23	1	22	4	pCi/L	83	354	1,490	1,490	0	1,490	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
199-K-194	non-Rad	1,2,4-Trichlorobenzene	120-82-1	1	1	0	100	ug/L	--	--	0.65	0.65	0	0.65	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 1,2,4-Trichlorobenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-194	non-Rad	1,2-Dichlorobenzene	95-50-1	1	1	0	100	ug/L	--	--	0.20	0.20	0	0.20	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 1,2-Dichlorobenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-194	non-Rad	Acetone	67-64-1	22	1	21	5	ug/L	0.34	5.0	3.1	3.1	0	3.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-194	non-Rad	Aluminum	7429-90-5	21	12	9	57	ug/L	10	20	14	55	0.46	27	95% KM (t) UCL	--
199-K-194	non-Rad	Arsenic	7440-38-2	21	21	0	100	ug/L	--	--	4.1	6.1	0.13	5.1	95% Student's-t UCL	--
199-K-194	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	23	35	0.085	29	95% Student's-t UCL	--
199-K-194	non-Rad	Boron	7440-42-8	14	8	6	57	ug/L	10	15	8.0	19	0.27	13	95% KM (t) UCL	--
199-K-194	non-Rad	Chloroform	67-66-3	22	12	10	55	ug/L	1.0	1.0	0.14	1.2	0.40	0.90	95% KM (t) UCL	--
199-K-194	non-Rad	Chromium	7440-47-3	22	22	0	100	ug/L	--	--	7.3	19	0.26	14	95% Student's-t UCL	--
199-K-194	non-Rad	Cobalt	7440-48-4	21	4	17	19	ug/L	0.054	0.22	0.15	14	1.9	5.3	97.5% KM (Chebyshev) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-194	non-Rad	Copper	7440-50-8	21	16	5	76	ug/L	0.20	0.56	0.35	1.3	0.46	0.72	95% KM (t) UCL	--
199-K-194	non-Rad	Fluoride	16984-48-8	19	19	0	100	ug/L	--	--	178	323	0.15	285	95% Student's-t UCL	--
199-K-194	non-Rad	Hexavalent Chromium	18540-29-9	21	21	0	100	ug/L	--	--	5.6	15	0.29	12	95% Student's-t UCL	--
199-K-194	non-Rad	Iron	7439-89-6	20	11	9	55	ug/L	20	40	22	224	0.84	67	95% KM (t) UCL	--
199-K-194	non-Rad	Manganese	7439-96-5	20	13	7	65	ug/L	1.0	4.0	0.52	12	0.87	4.1	95% KM (t) UCL	--
199-K-194	non-Rad	Methylene chloride	75-09-2	22	3	19	14	ug/L	0.27	1.6	0.31	5.3	1.0	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-194	non-Rad	Molybdenum	7439-98-7	21	21	0	100	ug/L	--	--	6.1	8.7	0.10	7.3	95% Modified-t UCL	--
199-K-194	non-Rad	Nickel	7440-02-0	20	14	6	70	ug/L	0.50	5.0	0.70	14	1.2	4.3	95% KM Adjusted Gamma UCL	--
199-K-194	non-Rad	Nitrate	14797-55-8	19	19	0	100	ug/L	--	--	9,430	14,600	0.13	12,474	95% Student's-t UCL	--
199-K-194	non-Rad	Nitrite	14797-65-0	19	4	15	21	ug/L	9.9	131	169	211	0.092	82	95% KM (t) UCL	--
199-K-194	non-Rad	Selenium	7782-49-2	21	13	8	62	ug/L	1.5	2.0	1.2	3.1	0.25	2.0	95% KM (t) UCL	--
199-K-194	non-Rad	Silver	7440-22-4	22	2	20	9	ug/L	0.033	5.1	0.18	0.29	0.34	0.097	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-194	non-Rad	Strontium	7440-24-6	20	20	0	100	ug/L	--	--	252	364	0.087	294	95% Modified-t UCL	--
199-K-194	non-Rad	Thallium	7440-28-0	21	1	20	5	ug/L	0.050	0.55	0.13	0.13	0	0.13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-194	non-Rad	Tin	7440-31-5	21	5	16	24	ug/L	0.10	1.0	0.12	6.9	1.6	1.1	95% KM (t) UCL	--
199-K-194	non-Rad	Uranium	7440-61-1	13	13	0	100	ug/L	--	--	2.7	3.7	0.085	3.2	95% Student's-t UCL	--
199-K-194	non-Rad	Vanadium	7440-62-2	20	20	0	100	ug/L	--	--	11	20	0.10	17	95% Student's-t UCL	--
199-K-194	non-Rad	Zinc	7440-66-6	20	3	17	15	ug/L	2.0	5.0	6.2	13	0.44	4.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-194	Rad	Carbon-14	14762-75-5	22	3	19	14	pCi/L	3.5	56	5.6	8.6	0.23	6.2	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-194	Rad	Strontium-90	10098-97-2	22	2	20	9	pCi/L	0.56	2.0	1.6	1.8	0.083	0.88	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-194	Rad	Tritium	10028-17-8	22	13	9	59	pCi/L	260	380	640	1,650	0.28	1,055	95% KM (t) UCL	--
199-K-20	non-Rad	Aluminum	7429-90-5	26	15	11	58	ug/L	10	20	11	249	1.2	56	95% KM H-UCL	--
199-K-20	non-Rad	Antimony	7440-36-0	26	1	25	4	ug/L	0.23	2.0	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-20	non-Rad	Arsenic	7440-38-2	26	24	2	92	ug/L	4.0	4.0	0.49	3.9	0.36	2.4	95% KM (t) UCL	--
199-K-20	non-Rad	Barium	7440-39-3	26	26	0	100	ug/L	--	--	19	29	0.11	26	95% Student's-t UCL	--
199-K-20	non-Rad	Boron	7440-42-8	16	7	9	44	ug/L	6.4	25	6.0	13	0.36	8.8	95% KM (t) UCL	--
199-K-20	non-Rad	Cadmium	7440-43-9	26	2	24	8	ug/L	0.099	0.20	0.10	0.16	0.33	0.11	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-20	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	1.0	1.0	0.64	0.73	0.093	0.73	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-20	non-Rad	Chromium	7440-47-3	26	24	2	92	ug/L	4.0	4.0	1.4	9.5	0.35	6.2	95% KM (t) UCL	--
199-K-20	non-Rad	Cobalt	7440-48-4	26	17	9	65	ug/L	0.10	0.90	0.12	1.0	0.66	0.39	95% KM (t) UCL	--
199-K-20	non-Rad	Copper	7440-50-8	26	14	12	54	ug/L	0.20	2.0	0.21	3.1	0.84	0.90	95% KM Adjusted Gamma UCL	--
199-K-20	non-Rad	Fluoride	16984-48-8	16	8	8	50	ug/L	46	88	63	190	0.31	111	95% KM (t) UCL	--
199-K-20	non-Rad	Hexavalent Chromium	18540-29-9	27	13	14	48	ug/L	1.5	2.0	1.5	9.0	0.57	3.1	95% KM (t) UCL	--
199-K-20	non-Rad	Iron	7439-89-6	13	13	0	100	ug/L	--	--	110	7,600	1.0	5,986	95% Adjusted Gamma UCL	--
199-K-20	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	5.0	5.3	0.041	5.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-20	non-Rad	Manganese	7439-96-5	17	17	0	100	ug/L	--	--	1.7	119	0.91	53	95% Adjusted Gamma UCL	--
199-K-20	non-Rad	Molybdenum	7439-98-7	25	23	2	92	ug/L	2.0	2.0	0.17	2.4	0.44	1.7	95% KM (t) UCL	--
199-K-20	non-Rad	Nickel	7440-02-0	17	6	11	35	ug/L	0.20	4.2	0.32	1.2	0.36	1.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-20	non-Rad	Nitrate	14797-55-8	16	16	0	100	ug/L	--	--	12,200	17,500	0.099	15,505	95% Student's-t UCL	--
199-K-20	non-Rad	Nitrite	14797-65-0	16	2	14	13	ug/L	20	131	145	217	0.28	74	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-20	non-Rad	Selenium	7782-49-2	26	9	17	35	ug/L	0.60	2.0	0.73	2.2	0.35	1.4	95% KM (t) UCL	--
199-K-20	non-Rad	Silver	7440-22-4	26	2	24	8	ug/L	0.039	0.90	0.11	0.16	0.29	0.077	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-20	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	205	311	0.11	260	95% Student's-t UCL	--
199-K-20	non-Rad	Thallium	7440-28-0	26	2	24	8	ug/L	0.014	0.90	0.91	1.1	0.13	0.22	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-20	non-Rad	Tin	7440-31-5	25	4	21	16	ug/L	0.10	1.3	0.13	5.6	1.5	0.81	95% KM (t) UCL	--
199-K-20	non-Rad	Uranium	7440-61-1	16	16	0	100	ug/L	--	--	1.7	3.0	0.13	2.5	95% Student's-t UCL	--
199-K-20	non-Rad	Vanadium	7440-62-2	15	9	6	60	ug/L	4.4	15	5.3	19	0.44	10	95% KM Adjusted Gamma UCL	--
199-K-20	non-Rad	Zinc	7440-66-6	17	9	8	53	ug/L	4.0	9.3	4.3	19	0.60	9.2	95% KM (t) UCL	--
199-K-20	Rad	Carbon-14	14762-75-5	15	9	6	60	pCi/L	8.0	46	9.6	29	0.38	18	95% KM (t) UCL	--
199-K-20	Rad	Strontium-90	10098-97-2	15	12	3	80	pCi/L	1.5	2.0	2.8	15	0.40	10	95% KM (t) UCL	--
199-K-20	Rad	Tritium	10028-17-8	15	15	0	100	pCi/L	--	--	2,050	14,000	0.41	9,412	95% Student's-t UCL	--
199-K-200	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	39	54	0.078	46	95% Student's-t UCL	--
199-K-200	non-Rad	Chloroform	67-66-3	8	2	6	25	ug/L	0.30	1.0	0.77	1.2	0.28	1.0	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-200	non-Rad	Chromium	7440-47-3	21	21	0	100	ug/L	--	--	2.5	32	0.65	17	95% Student's-t UCL	--
199-K-200	non-Rad	Fluoride	16984-48-8	19	12	7	63	ug/L	46	72	54	120	0.29	88	95% KM H-UCL	--
199-K-200	non-Rad	Hexavalent Chromium	18540-29-9	22	22	0	100	ug/L	--	--	1.9	29	0.71	14	95% Student's-t UCL	--
199-K-200	non-Rad	Iron	7439-89-6	22	19	3	86	ug/L	30	40	22	211	0.72	78	95% KM Adjusted Gamma UCL	--
199-K-200	non-Rad	Manganese	7439-96-5	22	3	19	14	ug/L	2.0	4.0	1.7	3.7	0.43	2.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-200	non-Rad	Methylene chloride	75-09-2	8	2	6	25	ug/L	1.0	1.6	2.2	6.3	0.69	5.6	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-200	non-Rad	Nickel	7440-02-0	22	2	20	9	ug/L	1.3	13	2.1	4.1	0.47	1.9	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-200	non-Rad	Nitrate	14797-55-8	19	19	0	100	ug/L	--	--	19,500	37,600	0.21	30,212	95% Student's-t UCL	--
199-K-200	non-Rad	Nitrite	14797-65-0	19	3	16	16	ug/L	125	131	169	214	0.12	147	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-200	non-Rad	Silver	7440-22-4	22	2	20	9	ug/L	0.93	6.0	2.3	7.9	0.77	3.4	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-200	non-Rad	Strontium	7440-24-6	22	22	0	100	ug/L	--	--	263	345	0.074	312	95% Student's-t UCL	--
199-K-200	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	1.8	2.4	0.17	2.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-200	non-Rad	Vanadium	7440-62-2	22	10	12	45	ug/L	4.1	10	1.3	2.1	0.17	1.7	95% KM (t) UCL	--
199-K-200	non-Rad	Zinc	7440-66-6	22	3	19	14	ug/L	3.3	7.0	3.3	11	0.63	4.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-200	Rad	Carbon-14	14762-75-5	22	14	8	64	pCi/L	7.9	54	9.5	51	0.50	25	95% KM (t) UCL	--
199-K-200	Rad	Strontium-90	10098-97-2	22	22	0	100	pCi/L	--	--	137	251	0.16	200	95% Student's-t UCL	--
199-K-200	Rad	Tritium	10028-17-8	22	22	0	100	pCi/L	--	--	1,200	5,500	0.46	2,940	95% Student's-t UCL	--
199-K-201	non-Rad	2-Butanone	78-93-3	20	2	18	10	ug/L	0.52	2.0	0.67	1.0	0.28	0.63	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-201	non-Rad	Acetone	67-64-1	20	3	17	15	ug/L	0.34	5.0	0.52	4.4	0.92	1.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-201	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	1.8	1.8	2.1	2.1	0	2.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-201	non-Rad	Barium	7440-39-3	23	23	0	100	ug/L	--	--	28	36	0.084	33	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-201	non-Rad	Carbon disulfide	75-15-0	20	1	19	5	ug/L	0.050	1.0	0.54	0.54	0	0.54	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon disulfide was not processed!
199-K-201	non-Rad	Chloroform	67-66-3	20	11	9	55	ug/L	1.0	1.0	0.36	0.91	0.24	0.83	95% KM H-UCL	--
199-K-201	non-Rad	Chromium	7440-47-3	22	22	0	100	ug/L	--	--	39	130	0.24	97	95% Student's-t UCL	--
199-K-201	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	2.1	2.1	3.1	3.1	0	3.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-201	non-Rad	Fluoride	16984-48-8	20	15	5	75	ug/L	46	72	47	150	0.32	117	95% KM H-UCL	--
199-K-201	non-Rad	Hexavalent Chromium	18540-29-9	23	23	0	100	ug/L	--	--	30	131	0.28	93	95% Student's-t UCL	--
199-K-201	non-Rad	Iron	7439-89-6	23	10	13	43	ug/L	13	30	24	161	0.67	49	95% KM (t) UCL	--
199-K-201	non-Rad	Manganese	7439-96-5	23	2	21	9	ug/L	0.70	4.0	2.4	4.3	0.40	1.6	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-201	non-Rad	Methylene chloride	75-09-2	20	1	19	5	ug/L	0.27	1.0	0.34	0.34	0	0.34	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-201	non-Rad	Nickel	7440-02-0	23	6	17	26	ug/L	1.5	13	2.6	8.0	0.46	3.4	95% KM (t) UCL	--
199-K-201	non-Rad	Nitrate	14797-55-8	20	20	0	100	ug/L	--	--	18,100	44,100	0.24	31,051	95% Student's-t UCL	--
199-K-201	non-Rad	Nitrite	14797-65-0	20	6	14	30	ug/L	9.9	131	138	203	0.15	91	95% KM (t) UCL	--
199-K-201	non-Rad	Strontium	7440-24-6	23	23	0	100	ug/L	--	--	279	378	0.083	328	95% Student's-t UCL	--
199-K-201	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	2.5	3.4	0.17	3.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-201	non-Rad	Vanadium	7440-62-2	23	16	7	70	ug/L	4.4	15	3.7	7.3	0.18	5.7	95% KM (t) UCL	--
199-K-201	non-Rad	Zinc	7440-66-6	23	2	21	9	ug/L	3.0	8.3	8.5	8.8	0.025	4.3	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-201	Rad	Carbon-14	14762-75-5	22	10	12	45	pCi/L	7.8	54	8.4	23	0.41	13	95% KM Adjusted Gamma UCL	--
199-K-201	Rad	Strontium-90	10098-97-2	22	22	0	100	pCi/L	--	--	5.2	18	0.26	13	95% Student's-t UCL	--
199-K-201	Rad	Technetium-99	14133-76-7	22	1	21	5	pCi/L	5.9	38	7.4	7.4	0	7.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-201	Rad	Tritium	10028-17-8	22	15	7	68	pCi/L	310	355	270	2,910	0.64	1,098	95% KM (t) UCL	--
199-K-202	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	98	430	0.80	430	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Antimony	7440-36-0	3	1	2	33	ug/L	1.7	1.7	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-202	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	3.0	3.8	0.14	3.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	32	35	0.045	35	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	45	108	0.42	108	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Carbon tetrachloride	56-23-5	2	1	1	50	ug/L	0.13	0.13	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-202	non-Rad	Chloroform	67-66-3	2	2	0	100	ug/L	--	--	0.82	0.91	0.074	0.91	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-202	non-Rad	Chromium	7440-47-3	3	3	0	100	ug/L	--	--	19	160	0.71	160	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-202	non-Rad	Cobalt	7440-48-4	3	2	1	67	ug/L	0.22	0.22	0.26	0.58	0.54	0.58	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-202	non-Rad	Copper	7440-50-8	3	3	0	100	ug/L	--	--	1.9	7.5	0.56	7.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	150	450	0.65	450	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Hexavalent Chromium	18540-29-9	10	10	0	100	ug/L	--	--	3.3	12	0.33	8.9	95% Student's-t UCL	--
199-K-202	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	166	1,600	0.76	1,600	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Manganese	7439-96-5	3	3	0	100	ug/L	--	--	3.8	15	0.79	15	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	1.9	4.1	0.36	4.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Nickel	7440-02-0	3	3	0	100	ug/L	--	--	1.8	10	0.68	10	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	11,500	28,300	0.42	28,300	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Nitrite	14797-65-0	3	1	2	33	ug/L	20	125	174	174	0	174	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-202	non-Rad	Selenium	7782-49-2	3	1	2	33	ug/L	1.6	1.6	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-202	non-Rad	Silver	7440-22-4	3	1	2	33	ug/L	0.82	0.82	0.040	0.040	0	0.040	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-202	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	230	277	0.094	277	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Thallium	7440-28-0	3	1	2	33	ug/L	0.014	0.55	0.64	0.64	0	0.64	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-202	non-Rad	Tin	7440-31-5	3	1	2	33	ug/L	1.1	1.3	4.9	4.9	0	4.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-202	non-Rad	Toluene	108-88-3	2	1	1	50	ug/L	0.070	0.070	0.13	0.13	0	0.13	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-202	non-Rad	Trichloroethene	79-01-6	2	1	1	50	ug/L	0.25	0.25	0.25	0.25	0	0.25	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-202	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	3.3	4.1	0.11	4.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	non-Rad	Vanadium	7440-62-2	3	3	0	100	ug/L	--	--	8.3	11	0.14	11	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-202	Rad	Carbon-14	14762-75-5	10	10	0	100	pCi/L	--	--	1,500	3,170	0.25	2,214	95% Student's-t UCL	--
199-K-202	Rad	Strontium-90	10098-97-2	10	1	9	10	pCi/L	0.57	1.5	8.1	8.1	0	8.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-202	Rad	Technetium-99	14133-76-7	3	2	1	67	pCi/L	33	33	42	72	0.38	72	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-202	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	18,500	47,900	0.32	35,137	95% Student's-t UCL	--
199-K-203	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	15	86	0.99	86	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Antimony	7440-36-0	2	1	1	50	ug/L	1.7	1.7	0.17	0.17	0	0.17	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	3.6	4.0	0.074	4.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	36	40	0.076	40	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	11	11	7.6	7.6	0	7.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	20	29	0.26	29	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.070	0.070	0.27	0.27	0	0.27	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	1.1	1.1	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Fluoride	16984-48-8	2	2	0	100	ug/L	--	--	210	210	0	210	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Hexavalent Chromium	18540-29-9	8	8	0	100	ug/L	--	--	10	28	0.30	26	95% Student's-t UCL	--
199-K-203	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	28	178	1.0	178	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	0.30	0.30	20	20	0	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	2.0	2.8	0.24	2.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Nickel	7440-02-0	2	1	1	50	ug/L	4.2	4.2	3.2	3.2	0	3.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	14,600	16,400	0.082	16,400	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	1.6	1.6	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	239	240	0.0030	240	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.1	2.5	0.12	2.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-203	non-Rad	Vanadium	7440-62-2	2	2	0	100	ug/L	--	--	9.5	13	0.21	13	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	Rad	Carbon-14	14762-75-5	8	8	0	100	pCi/L	--	--	58	663	1.4	484	95% Chebyshev (Mean, Sd) UCL	--
199-K-203	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	802	1,460	0.22	1,152	95% Student's-t UCL	--
199-K-203	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.89	0.89	0	0.89	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	Rad	Uranium-235	15117-96-1	1	1	0	100	pCi/L	--	--	0.13	0.13	0	0.13	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-203	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.77	0.77	0	0.77	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	11	11	0	11	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Acetone	67-64-1	10	3	7	30	ug/L	0.55	0.55	0.86	3.0	0.74	1.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-204	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	28	99	0.78	99	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Antimony	7440-36-0	2	1	1	50	ug/L	2.0	2.0	0.24	0.24	0	0.24	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	4.0	4.0	2.0	2.0	0	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	31	59	0.26	48	95% Student's-t UCL	--
199-K-204	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	25	25	11	11	0	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Chloroform	67-66-3	10	10	0	100	ug/L	--	--	0.43	0.63	0.13	0.56	95% Student's-t UCL	--
199-K-204	non-Rad	Chromium	7440-47-3	7	7	0	100	ug/L	--	--	4.5	16	0.55	11	95% Student's-t UCL	--
199-K-204	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.90	0.90	0.41	0.41	0	0.41	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	2.0	2.0	0.48	0.48	0	0.48	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Cyanide	57-12-5	4	1	3	25	ug/L	3.1	3.1	6.5	6.5	0	6.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!
199-K-204	non-Rad	Fluoride	16984-48-8	15	15	0	100	ug/L	--	--	180	260	0.095	241	95% Student's-t UCL	--
199-K-204	non-Rad	Hexavalent Chromium	18540-29-9	18	15	3	83	ug/L	1.5	1.5	1.6	7.7	0.40	4.0	95% KM (t) UCL	--
199-K-204	non-Rad	Iron	7439-89-6	7	7	0	100	ug/L	--	--	44	290	0.84	168	95% Student's-t UCL	--
199-K-204	non-Rad	Manganese	7439-96-5	7	6	1	86	ug/L	4.0	4.0	1.2	120	2.1	120	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-204	non-Rad	Molybdenum	7439-98-7	2	1	1	50	ug/L	2.0	2.0	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.6	10	6.2	6.2	0	6.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-K-204	non-Rad	Nitrate	14797-55-8	15	15	0	100	ug/L	--	--	35,000	44,300	0.083	43,026	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-204	non-Rad	Nitrite	14797-65-0	15	1	14	7	ug/L	125	125	282	282	0	282	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-204	non-Rad	Silver	7440-22-4	7	1	6	14	ug/L	0.90	3.0	0.050	0.050	0	0.050	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-204	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	350	396	0.087	396	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Tin	7440-31-5	2	1	1	50	ug/L	1.2	1.2	1.4	1.4	0	1.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Trichloroethene	79-01-6	10	10	0	100	ug/L	--	--	1.8	5.3	0.36	3.5	95% Student's-t UCL	--
199-K-204	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	5.7	7.0	0.14	7.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-204	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	15	15	7.3	21	0.47	15	95% KM (t) UCL	--
199-K-204	non-Rad	Zinc	7440-66-6	7	1	6	14	ug/L	3.0	7.5	9.7	9.7	0	9.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-204	Rad	Carbon-14	14762-75-5	19	19	0	100	pCi/L	--	--	5,130	26,600	0.43	17,779	95% Student's-t UCL	--
199-K-204	Rad	Technetium-99	14133-76-7	7	1	6	14	pCi/L	9.1	37	9.9	9.9	0	9.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-204	Rad	Tritium	10028-17-8	17	17	0	100	pCi/L	--	--	718	13,100	1.2	6,014	95% Chebyshev (Mean, Sd) UCL	--
199-K-207	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	15	16	0.027	16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	4.3	4.7	0.063	4.7	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	38	43	0.088	43	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	786	852	0.057	852	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	82	97	0.12	97	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.10	0.10	0.16	0.16	0	0.16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Fluoride	16984-48-8	7	7	0	100	ug/L	--	--	260	290	0.035	283	95% Student's-t UCL	--
199-K-207	non-Rad	Hexavalent Chromium	18540-29-9	7	7	0	100	ug/L	--	--	74	120	0.18	107	95% Student's-t UCL	--
199-K-207	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	1.0	1.0	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	4.3	4.5	0.034	4.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Nickel	7440-02-0	2	1	1	50	ug/L	0.50	0.50	0.56	0.56	0	0.56	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Nitrate	14797-55-8	7	7	0	100	ug/L	--	--	39,800	48,700	0.075	46,835	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-207	non-Rad	Nitrite	14797-65-0	7	1	6	14	ug/L	125	125	164	164	0	164	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-207	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	2.0	2.0	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	296	341	0.100	341	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	4.6	5.0	0.054	5.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	non-Rad	Vanadium	7440-62-2	2	2	0	100	ug/L	--	--	10	12	0.078	12	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	Rad	Technetium-99	14133-76-7	2	2	0	100	pCi/L	--	--	38	84	0.54	84	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-207	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	345,000	935,000	0.35	760,768	95% Student's-t UCL	--
199-K-208	non-Rad	Aluminum	7429-90-5	2	1	1	50	ug/L	17	17	180	180	0	180	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Antimony	7440-36-0	2	1	1	50	ug/L	1.7	1.7	0.57	0.57	0	0.57	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	3.7	4.3	0.11	4.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	39	41	0.041	41	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	30	258	1.2	258	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-208	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	9.3	12	0.16	12	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	0.68	0.68	62	62	0	62	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Fluoride	16984-48-8	8	8	0	100	ug/L	--	--	104	240	0.22	240	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-208	non-Rad	Hexavalent Chromium	18540-29-9	8	8	0	100	ug/L	--	--	7.4	41	0.84	24	95% H-UCL	--
199-K-208	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	36	50	0.17	50	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-208	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	0.88	0.88	0.74	0.74	0	0.74	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	4.8	4.8	0	4.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Nitrate	14797-55-8	8	8	0	100	ug/L	--	--	15,100	28,700	0.26	20,806	95% Modified-t UCL	--
199-K-208	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	1.6	1.6	1.6	1.6	0	1.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-208	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	320	344	0.051	344	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.8	2.9	0.025	2.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	4.4	4.4	7.8	13	0.35	13	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-208	non-Rad	Zinc	7440-66-6	2	2	0	100	ug/L	--	--	27	180	1.0	180	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-208	Rad	Strontium-90	10098-97-2	8	1	7	13	pCi/L	0.64	1.4	0.63	0.63	0	0.63	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-208	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	10,100	83,500	1.1	43,810	95% H-UCL	--
199-K-209	non-Rad	Aluminum	7429-90-5	2	1	1	50	ug/L	15	15	16	16	0	16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	6.1	6.1	0.0047	6.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	28	34	0.12	34	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Chromium	7440-47-3	3	3	0	100	ug/L	--	--	3.3	4.7	0.17	4.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-209	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	0.36	1.4	0.82	1.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Fluoride	16984-48-8	8	8	0	100	ug/L	--	--	311	350	0.038	336	95% Student's-t UCL	--
199-K-209	non-Rad	Hexavalent Chromium	18540-29-9	8	8	0	100	ug/L	--	--	2.8	3.6	0.086	3.3	95% Student's-t UCL	--
199-K-209	non-Rad	Iron	7439-89-6	2	1	1	50	ug/L	30	30	43	43	0	43	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	1.0	1.0	9.1	9.1	0	9.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	8.4	8.8	0.031	8.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Nickel	7440-02-0	2	2	0	100	ug/L	--	--	0.76	1.9	0.60	1.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Nitrate	14797-55-8	8	8	0	100	ug/L	--	--	12,800	13,300	0.020	13,229	95% Modified-t UCL	--
199-K-209	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	277	278	0.0025	278	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	3.6	4.2	0.12	4.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-209	non-Rad	Vanadium	7440-62-2	2	2	0	100	ug/L	--	--	19	19	0	19	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-21	non-Rad	Aluminum	7429-90-5	7	3	4	43	ug/L	13	20	25	71	0.54	45	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-21	non-Rad	Arsenic	7440-38-2	7	1	6	14	ug/L	0.40	1.7	1.00	1.00	0	1.00	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Arsenic was not processed!
199-K-21	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	13	24	0.22	19	95% Student's-t UCL	--
199-K-21	non-Rad	Beryllium	7440-41-7	7	1	6	14	ug/L	0.10	0.20	0.38	0.38	0	0.38	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-21	non-Rad	Boron	7440-42-8	5	2	3	40	ug/L	4.0	15	4.4	13	0.68	13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-21	non-Rad	Chromium	7440-47-3	7	6	1	86	ug/L	3.0	3.0	19	73	0.55	73	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-21	non-Rad	Cobalt	7440-48-4	7	6	1	86	ug/L	0.22	0.22	0.13	0.96	0.69	0.65	95% KM (t) UCL	--
199-K-21	non-Rad	Copper	7440-50-8	7	6	1	86	ug/L	0.35	0.35	0.38	2.5	0.59	1.8	95% KM (t) UCL	--
199-K-21	non-Rad	Fluoride	16984-49-8	11	4	7	36	ug/L	46	88	84	95	0.055	77	95% KM (t) UCL	--
199-K-21	non-Rad	Hexavalent Chromium	18540-29-9	14	10	4	71	ug/L	1.5	8.0	1.7	18	0.51	12	95% KM (t) UCL	--
199-K-21	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	343	761	0.36	741	95% Student's-t UCL	--
199-K-21	non-Rad	Manganese	7439-96-5	5	5	0	100	ug/L	--	--	103	235	0.35	211	95% Student's-t UCL	--
199-K-21	non-Rad	Molybdenum	7439-98-7	7	7	0	100	ug/L	--	--	0.82	2.6	0.36	2.2	95% Student's-t UCL	--
199-K-21	non-Rad	Nickel	7440-02-0	5	5	0	100	ug/L	--	--	2.0	32	0.86	25	95% Student's-t UCL	--
199-K-21	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	12,200	24,800	0.23	20,569	95% Student's-t UCL	--
199-K-21	non-Rad	Nitrite	14797-65-0	11	4	7	36	ug/L	118	131	141	258	0.25	177	95% KM (t) UCL	--
199-K-21	non-Rad	Selenium	7782-49-2	7	1	6	14	ug/L	1.5	2.0	0.72	0.72	0	0.72	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-K-21	non-Rad	Silver	7440-22-4	7	1	6	14	ug/L	0.040	0.40	0.21	0.21	0	0.21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-21	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	224	313	0.13	289	95% Student's-t UCL	--
199-K-21	non-Rad	Thallium	7440-28-0	7	1	6	14	ug/L	0.10	0.60	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-21	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	1.4	1.7	0.098	1.7	95% Student's-t UCL	--
199-K-21	non-Rad	Vanadium	7440-62-2	5	1	4	20	ug/L	0.40	1.0	1.5	1.5	0	1.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-K-21	non-Rad	Zinc	7440-66-6	5	1	4	20	ug/L	3.5	4.0	3.3	3.3	0	3.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-21	Rad	Carbon-14	14762-75-5	7	2	5	29	pCi/L	5.0	50	9.1	9.2	0.0077	9.2	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-21	Rad	Strontium-90	10098-97-2	7	7	0	100	pCi/L	--	--	17	30	0.18	27	95% Student's-t UCL	--
199-K-21	Rad	Tritium	10028-17-8	7	3	4	43	pCi/L	180	345	272	2,110	0.75	1,291	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-21	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	2.9	2.9	0	2.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-21	Rad	Uranium-235	15117-96-1	1	1	0	100	pCi/L	--	--	0.38	0.38	0	0.38	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-21	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.76	0.76	0	0.76	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-210	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	17	17	22	46	0.49	46	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-210	non-Rad	Arsenic	7440-38-2	3	2	1	67	ug/L	4.0	4.0	3.1	3.8	0.14	3.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-210	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	32	39	0.091	39	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	13	13	0	13	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-210	non-Rad	Cadmium	7440-43-9	3	1	2	33	ug/L	0.10	0.20	0.19	0.19	0	0.19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-210	non-Rad	Chromium	7440-47-3	3	3	0	100	ug/L	--	--	27	31	0.061	31	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Copper	7440-50-8	3	2	1	67	ug/L	0.68	0.68	15	30	0.45	30	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-210	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	159	180	0.070	180	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Hexavalent Chromium	18540-29-9	9	9	0	100	ug/L	--	--	22	26	0.060	25	95% Student's-t UCL	--
199-K-210	non-Rad	Manganese	7439-96-5	3	2	1	67	ug/L	0.88	0.88	1.3	2.5	0.45	2.5	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-210	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	2.4	2.9	0.11	2.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	20,800	22,600	0.041	22,600	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	240	304	0.12	304	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Tin	7440-31-5	3	1	2	33	ug/L	1.1	1.2	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-210	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	2.1	2.6	0.11	2.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	non-Rad	Zinc	7440-66-6	3	2	1	67	ug/L	9.3	9.3	69	75	0.059	75	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-210	Rad	Carbon-14	14762-75-5	3	3	0	100	pCi/L	--	--	81	236	0.55	236	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-210	Rad	Strontium-90	10098-97-2	9	2	7	22	pCi/L	0.55	1.4	1.3	2.1	0.32	1.3	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-210	Rad	Tritium	10028-17-8	9	9	0	100	pCi/L	--	--	1,400	3,970	0.29	3,632	95% Student's-t UCL	--
199-K-22	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	10	10	14	14	0	14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-K-22	non-Rad	Barium	7440-39-3	10	10	0	100	ug/L	--	--	16	46	0.31	30	95% Student's-t UCL	--
199-K-22	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.97	0.97	0	0.97	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-22	non-Rad	Cadmium	7440-43-9	4	1	3	25	ug/L	0.20	0.20	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-22	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	1.0	1.0	0.76	0.79	0.027	0.79	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-22	non-Rad	Chromium	7440-47-3	9	9	0	100	ug/L	--	--	26	125	0.50	96	95% Student's-t UCL	--
199-K-22	non-Rad	Cobalt	7440-48-4	4	2	2	50	ug/L	0.10	2.7	0.10	0.12	0.11	0.12	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-22	non-Rad	Copper	7440-50-8	4	1	3	25	ug/L	0.20	2.1	0.56	0.56	0	0.56	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-K-22	non-Rad	Fluoride	16984-48-8	14	9	5	64	ug/L	46	72	77	150	0.24	112	95% KM (t) UCL	--
199-K-22	non-Rad	Hexavalent Chromium	18540-29-9	16	16	0	100	ug/L	--	--	12	128	0.58	77	95% Student's-t UCL	--
199-K-22	non-Rad	Iron	7439-89-6	10	8	2	80	ug/L	20	25	42	160	0.55	111	95% KM (t) UCL	--
199-K-22	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	5.2	21	0.85	21	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-22	non-Rad	Manganese	7439-96-5	10	4	6	40	ug/L	4.0	4.0	2.3	79	1.7	63	97.5% KM (Chebyshev) UCL	--
199-K-22	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	2.4	2.8	0.11	2.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-22	non-Rad	Nickel	7440-02-0	10	2	8	20	ug/L	1.6	10	3.2	4.7	0.27	4.1	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-22	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	10,300	66,400	0.69	26,997	95% Modified-t UCL	--
199-K-22	non-Rad	Nitrite	14797-65-0	14	2	12	14	ug/L	9.9	131	142	156	0.066	62	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-22	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	1.9	2.6	0.20	2.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-22	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	191	337	0.18	299	95% Student's-t UCL	--
199-K-22	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	2.0	2.2	0.057	2.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-22	non-Rad	Vanadium	7440-62-2	10	2	8	20	ug/L	4.4	12	2.3	18	1.1	13	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-22	non-Rad	Zinc	7440-66-6	10	10	0	100	ug/L	--	--	260	919	0.49	565	95% Student's-t UCL	--
199-K-22	Rad	Carbon-14	14762-75-5	10	3	7	30	pCi/L	8.0	48	10	24	0.51	15	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-22	Rad	Strontium-90	10098-97-2	10	9	1	90	pCi/L	1.7	1.7	4.0	15	0.46	11	95% KM (t) UCL	--
199-K-22	Rad	Technetium-99	14133-76-7	8	1	7	13	pCi/L	6.5	39	220	220	0	220	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-22	Rad	Tritium	10028-17-8	10	5	5	50	pCi/L	170	340	160	2,770	0.60	1,575	95% KM (t) UCL	--
199-K-221	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.3	2.3	0	2.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	35	35	0	35	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	31	31	0	31	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	15	15	0	15	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.72	0.72	0	0.72	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-221	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	180	180	0	180	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Hexavalent Chromium	18540-29-9	5	5	0	100	ug/L	--	--	6.9	32	0.56	30	95% Student's-t UCL	--
199-K-221	non-Rad	Iron	7439-89-6	1	1	0	100	ug/L	--	--	26	26	0	26	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	4.1	4.1	0	4.1	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Nickel	7440-02-0	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	30,500	30,500	0	30,500	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	315	315	0	315	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Tin	7440-31-5	1	1	0	100	ug/L	--	--	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	14	14	0	14	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	non-Rad	Vanadium	7440-62-2	1	1	0	100	ug/L	--	--	4.5	4.5	0	4.5	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	Rad	Carbon-14	14762-75-5	5	5	0	100	pCi/L	--	--	75	1,930	0.79	1,835	95% Student's-t UCL	--
199-K-221	Rad	Strontium-90	10098-97-2	5	3	2	60	pCi/L	0.85	1.4	2.7	8.7	0.73	6.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-221	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	64	64	0	64	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-221	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	569	30,100	0.93	26,679	95% Student's-t UCL	--
199-K-222	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	40	223	0.99	223	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	4.0	4.0	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	29	39	0.19	39	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	11	21	0.44	21	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	0.98	1.2	0.14	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Fluoride	16984-48-8	2	2	0	100	ug/L	--	--	140	180	0.18	180	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Hexavalent Chromium	18540-29-9	6	6	0	100	ug/L	--	--	5.4	20	0.35	19	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-222	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	81	241	0.71	241	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Manganese	7439-96-5	2	2	0	100	ug/L	--	--	20	23	0.082	23	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Molybdenum	7439-98-7	2	1	1	50	ug/L	2.0	2.0	9.1	9.1	0	9.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Nickel	7440-02-0	2	2	0	100	ug/L	--	--	2.2	2.4	0.061	2.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	14,200	24,300	0.37	24,300	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Nitrite	14797-65-0	2	1	1	50	ug/L	125	125	138	138	0	138	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	1.6	1.6	2.1	2.1	0	2.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	216	295	0.22	295	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	1.6	2.0	0.16	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	non-Rad	Vanadium	7440-62-2	2	1	1	50	ug/L	15	15	5.6	5.6	0	5.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-222	Rad	Carbon-14	14762-75-5	6	6	0	100	pCi/L	--	--	166	239	0.13	215	95% Student's-t UCL	--
199-K-222	Rad	Strontium-90	10098-97-2	6	6	0	100	pCi/L	--	--	3.9	152	1.2	113	95% Student's-t UCL	--
199-K-222	Rad	Tritium	10028-17-8	6	1	5	17	pCi/L	298	441	403	403	0	403	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
199-K-223	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	8.8	8.8	0	8.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-223	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	32	37	0.067	37	95% Student's-t UCL	--
199-K-223	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	0.33	0.41	0.11	0.41	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-223	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	4.7	16	0.43	15	95% Student's-t UCL	--
199-K-223	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	140	210	0.18	206	95% Student's-t UCL	--
199-K-223	non-Rad	Hexavalent Chromium	18540-29-9	10	10	0	100	ug/L	--	--	6.6	16	0.35	11	95% Modified-t UCL	--
199-K-223	non-Rad	Iron	7439-89-6	5	3	2	60	ug/L	30	30	98	202	0.37	174	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-223	non-Rad	Manganese	7439-96-5	4	3	1	75	ug/L	2.0	2.0	2.4	8.8	0.60	8.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-223	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	21,200	24,800	0.058	23,874	95% Student's-t UCL	--
199-K-223	non-Rad	Nitrite	14797-65-0	6	2	4	33	ug/L	125	125	217	821	0.82	821	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-223	non-Rad	Trichloroethene	79-01-6	3	3	0	100	ug/L	--	--	4.3	4.9	0.070	4.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-223	non-Rad	Vanadium	7440-62-2	5	5	0	100	ug/L	--	--	8.8	9.7	0.036	9.5	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-223	Rad	Carbon-14	14762-75-5	3	3	0	100	pCi/L	--	--	108	158	0.19	158	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-223	Rad	Tritium	10028-17-8	3	3	0	100	pCi/L	--	--	1,170	1,660	0.17	1,660	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-224	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	10	10	0	10	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-224	non-Rad	Acetone	67-64-1	3	1	2	33	ug/L	3.0	3.0	2.0	2.0	0	2.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-224	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	40	43	0.042	43	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-224	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	9.7	9.7	0	9.7	Maximum Detect	Warning: This data set only has 1 observation! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-224	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	0.30	0.30	0.27	0.38	0.24	0.38	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-224	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	97	130	0.13	126	95% Student's-t UCL	--
199-K-224	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	130	210	0.21	210	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-224	non-Rad	Hexavalent Chromium	18540-29-9	10	10	0	100	ug/L	--	--	97	130	0.090	113	95% Modified-t UCL	--
199-K-224	non-Rad	Iron	7439-89-6	5	2	3	40	ug/L	16	30	195	360	0.42	360	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-224	non-Rad	Manganese	7439-96-5	4	2	2	50	ug/L	2.0	2.0	3.9	5.7	0.27	5.7	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-224	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	22,600	23,500	0.018	23,365	95% Student's-t UCL	--
199-K-224	non-Rad	Nitrite	14797-65-0	6	2	4	33	ug/L	125	125	220	821	0.82	821	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-224	non-Rad	Trichloroethene	79-01-6	3	3	0	100	ug/L	--	--	3.1	5.5	0.28	5.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-224	non-Rad	Vanadium	7440-62-2	5	4	1	80	ug/L	15	15	12	13	0.042	13	95% KM (t) UCL	--
199-K-224	Rad	Carbon-14	14762-75-5	3	3	0	100	pCi/L	--	--	281	459	0.28	459	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-224	Rad	Strontium-90	10098-97-2	3	1	2	33	pCi/L	1.1	1.2	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-224	Rad	Tritium	10028-17-8	3	3	0	100	pCi/L	--	--	912	1,110	0.098	1,110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-23	non-Rad	Aluminum	7429-90-5	6	4	2	67	ug/L	10	20	13	185	1.5	174	95% KM (Chebyshev) UCL	--
199-K-23	non-Rad	Arsenic	7440-38-2	6	6	0	100	ug/L	--	--	1.0	3.5	0.36	3.3	95% Student's-t UCL	--
199-K-23	non-Rad	Barium	7440-39-3	9	9	0	100	ug/L	--	--	13	51	0.36	45	95% Student's-t UCL	--
199-K-23	non-Rad	Beryllium	7440-41-7	6	1	5	17	ug/L	0.10	0.20	0.71	0.71	0	0.71	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-23	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	15	79	0.88	79	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-23	non-Rad	Chromium	7440-47-3	9	9	0	100	ug/L	--	--	3.1	110	0.73	76	95% Student's-t UCL	--
199-K-23	non-Rad	Cobalt	7440-48-4	6	6	0	100	ug/L	--	--	0.14	0.80	0.62	0.62	95% Student's-t UCL	--
199-K-23	non-Rad	Copper	7440-50-8	6	6	0	100	ug/L	--	--	0.89	3.0	0.48	2.4	95% Student's-t UCL	--
199-K-23	non-Rad	Fluoride	16984-48-8	7	7	0	100	ug/L	--	--	93	147	0.15	142	95% Student's-t UCL	--
199-K-23	non-Rad	Hexavalent Chromium	18540-29-9	10	7	3	70	ug/L	1.5	1.5	2.2	115	1.0	56	95% KM (t) UCL	--
199-K-23	non-Rad	Iron	7439-89-6	9	8	1	89	ug/L	30	30	371	1,620	0.47	1,152	95% KM (t) UCL	--
199-K-23	non-Rad	Manganese	7439-96-5	9	9	0	100	ug/L	--	--	4.8	93	0.76	58	95% Student's-t UCL	--
199-K-23	non-Rad	Molybdenum	7439-98-7	6	6	0	100	ug/L	--	--	0.56	2.1	0.40	1.7	95% Student's-t UCL	--
199-K-23	non-Rad	Nickel	7440-02-0	9	7	2	78	ug/L	1.5	13	0.89	37	0.85	18	95% KM (t) UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-23	non-Rad	Nitrate	14797-55-8	7	7	0	100	ug/L	--	--	797	70,800	0.62	60,548	95% Student's-t UCL	--
199-K-23	non-Rad	Nitrite	14797-65-0	7	2	5	29	ug/L	125	131	321	443	0.23	325	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-23	non-Rad	Selenium	7782-49-2	6	2	4	33	ug/L	1.6	2.0	1.6	2.0	0.18	1.9	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-23	non-Rad	Silver	7440-22-4	9	1	8	11	ug/L	0.050	1.0	0.047	0.047	0	0.047	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-23	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	212	456	0.23	446	95% Student's-t UCL	--
199-K-23	non-Rad	Thallium	7440-28-0	6	1	5	17	ug/L	0.050	0.60	2.2	2.2	0	2.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-23	non-Rad	Tin	7440-31-5	6	2	4	33	ug/L	0.10	1.0	0.062	0.13	0.50	0.13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-23	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	1.8	6.4	0.81	6.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-23	non-Rad	Vanadium	7440-62-2	9	9	0	100	ug/L	--	--	1.4	11	0.65	7.8	95% Student's-t UCL	--
199-K-23	non-Rad	Zinc	7440-66-6	9	2	7	22	ug/L	3.3	7.0	3.6	3.8	0.046	3.8	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-23	Rad	Carbon-14	14762-75-5	10	10	0	100	pCi/L	--	--	36	101	0.31	81	95% Student's-t UCL	--
199-K-23	Rad	Strontium-90	10098-97-2	9	2	7	22	pCi/L	0.73	2.0	0.88	1.7	0.45	1.2	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-23	Rad	Tritium	10028-17-8	5	1	4	20	pCi/L	270	395	129	129	0	129	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set. It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
199-K-29	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	24	24	0	24	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	152	152	0	152	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Iron	7439-89-6	1	1	0	100	ug/L	--	--	731	731	0	731	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Manganese	7439-96-5	1	1	0	100	ug/L	--	--	35	35	0	35	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	46,500	46,500	0	46,500	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	227	227	0	227	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	non-Rad	Zinc	7440-66-6	1	1	0	100	ug/L	--	--	6.0	6.0	0	6.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-29	Rad	Carbon-14	14762-75-5	1	1	0	100	pCi/L	--	--	3,120	3,120	0	3,120	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	6.8	6.8	0	6.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-29	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	130,000	130,000	0	130,000	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	23	26	0.073	26	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	79	211	0.38	211	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-30	non-Rad	Hexavalent Chromium	18540-29-9	2	1	1	50	ug/L	2.0	2.0	7.5	7.5	0	7.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	non-Rad	Iron	7439-89-6	2	1	1	50	ug/L	38	38	31	31	0	31	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	25,100	60,600	0.35	58,901	95% Student's-t UCL	--
199-K-30	non-Rad	Nitrite	14797-65-0	4	1	3	25	ug/L	118	118	588	588	0	588	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-30	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	245	270	0.069	270	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	Rad	Carbon-14	14762-75-5	2	2	0	100	pCi/L	--	--	3,510	4,110	0.11	4,110	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	Rad	Cobalt-60	10198-40-0	2	1	1	50	pCi/L	9.5	9.5	12	12	0	12	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt-60 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	Rad	Nickel-63	13981-37-8	2	1	1	50	pCi/L	3.9	3.9	4.4	4.4	0	4.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel-63 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-30	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	16,000	280,000	0.70	280,000	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-31	non-Rad	Aluminum	7429-90-5	17	4	13	24	ug/L	10	20	15	33	0.30	17	95% KM (t) UCL	--
199-K-31	non-Rad	Antimony	7440-36-0	17	1	16	6	ug/L	0.60	2.0	0.27	0.27	0	0.27	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-31	non-Rad	Arsenic	7440-38-2	17	16	1	94	ug/L	4.0	4.0	1.6	3.0	0.15	2.5	95% KM (t) UCL	--
199-K-31	non-Rad	Barium	7440-39-3	21	21	0	100	ug/L	--	--	27	40	0.086	35	95% Student's-t UCL	--
199-K-31	non-Rad	Beryllium	7440-41-7	17	1	16	6	ug/L	0.10	0.35	0.30	0.30	0	0.30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-31	non-Rad	Boron	7440-42-8	11	8	3	73	ug/L	7.2	25	10	43	0.61	26	95% GROS Adjusted Gamma UCL	--
199-K-31	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.95	0.95	0	0.95	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-31	non-Rad	Cadmium	7440-43-9	17	1	16	6	ug/L	0.099	0.20	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-31	non-Rad	Chloroform	67-66-3	8	6	2	75	ug/L	0.30	1.0	0.20	0.36	0.24	0.32	95% KM (t) UCL	--
199-K-31	non-Rad	Chloromethane	74-87-3	3	1	2	33	ug/L	0.077	1.0	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-K-31	non-Rad	Chromium	7440-47-3	21	21	0	100	ug/L	--	--	3.5	9.5	0.19	7.4	95% Student's-t UCL	--
199-K-31	non-Rad	Cobalt	7440-48-4	17	1	16	6	ug/L	0.10	0.90	0.20	0.20	0	0.20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-31	non-Rad	Copper	7440-50-8	17	2	15	12	ug/L	0.20	0.68	0.32	3.1	1.1	1.8	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-31	non-Rad	Fluoride	16984-48-8	19	19	0	100	ug/L	--	--	102	240	0.23	202	95% Student's-t UCL	--
199-K-31	non-Rad	Hexavalent Chromium	18540-29-9	15	14	1	93	ug/L	3.7	3.7	4.4	9.4	0.21	6.6	95% KM (t) UCL	--
199-K-31	non-Rad	Iron	7439-89-6	14	13	1	93	ug/L	40	40	20	490	1.2	215	95% GROS Adjusted Gamma UCL	--
199-K-31	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	6.2	17	0.66	17	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-31	non-Rad	Manganese	7439-96-5	16	13	3	81	ug/L	4.0	4.0	0.34	7.8	0.80	3.2	95% KM (t) UCL	--
199-K-31	non-Rad	Molybdenum	7439-98-7	16	16	0	100	ug/L	--	--	1.5	3.0	0.16	2.8	95% Student's-t UCL	--
199-K-31	non-Rad	Nickel	7440-02-0	16	2	14	13	ug/L	0.20	4.2	0.39	0.65	0.35	0.57	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-31	non-Rad	Nitrate	14797-55-8	19	19	0	100	ug/L	--	--	15,800	27,400	0.099	25,572	95% Student's-t UCL	--
199-K-31	non-Rad	Nitrite	14797-65-0	19	1	18	5	ug/L	9.9	131	236	236	0	236	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-31	non-Rad	Selenium	7782-49-2	17	10	7	59	ug/L	1.6	2.0	0.99	2.4	0.30	1.7	95% KM (t) UCL	--
199-K-31	non-Rad	Strontium	7440-24-6	12	12	0	100	ug/L	--	--	221	309	0.092	264	95% Student's-t UCL	--
199-K-31	non-Rad	Thallium	7440-28-0	17	1	16	6	ug/L	0.014	0.90	1.8	1.8	0	1.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-31	non-Rad	Tin	7440-31-5	16	1	15	6	ug/L	0.10	1.2	5.3	5.3	0	5.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-31	non-Rad	Trichloroethene	79-01-6	8	8	0	100	ug/L	--	--	2.2	4.0	0.20	3.6	95% Student's-t UCL	--
199-K-31	non-Rad	Uranium	7440-61-1	11	11	0	100	ug/L	--	--	1.8	2.6	0.094	2.2	95% Student's-t UCL	--
199-K-31	non-Rad	Vanadium	7440-62-2	15	13	2	87	ug/L	12	15	7.2	26	0.46	12	95% KM (BCA) UCL	--
199-K-31	non-Rad	Zinc	7440-66-6	16	2	14	13	ug/L	3.3	9.3	4.0	23	1.00	12	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-31	Rad	Carbon-14	14762-75-5	13	13	0	100	pCi/L	--	--	179	436	0.24	362	95% Student's-t UCL	--
199-K-31	Rad	Strontium-90	10098-97-2	13	2	11	15	pCi/L	0.57	2.2	1.5	1.6	0.031	1.2	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-31	Rad	Technetium-99	14133-76-7	8	8	0	100	pCi/L	--	--	24	85	0.32	70	95% Student's-t UCL	--
199-K-31	Rad	Tritium	10028-17-8	19	19	0	100	pCi/L	--	--	1,200	2,100	0.15	1,713	95% Student's-t UCL	--
199-K-32A	non-Rad	Aluminum	7429-90-5	20	16	4	80	ug/L	10	10	13	1,950	2.9	554	95% KM (Chebyshev) UCL	--
199-K-32A	non-Rad	Arsenic	7440-38-2	20	13	7	65	ug/L	0.80	1.7	0.86	3.1	0.44	1.6	95% KM Adjusted Gamma UCL	--
199-K-32A	non-Rad	Barium	7440-39-3	28	28	0	100	ug/L	--	--	22	48	0.18	30	95% Adjusted Gamma UCL	--
199-K-32A	non-Rad	Boron	7440-42-8	14	13	1	93	ug/L	15	15	11	27	0.19	21	95% KM (t) UCL	--
199-K-32A	non-Rad	Bromodichloromethane	75-27-4	3	2	1	67	ug/L	1.0	1.0	0.13	0.16	0.15	0.16	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-32A	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.97	0.97	0	0.97	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-K-32A	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	2.1	2.3	0.045	2.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-32A	non-Rad	Chromium	7440-47-3	28	27	1	96	ug/L	13	13	12	24	0.17	18	95% KM (t) UCL	--
199-K-32A	non-Rad	Cobalt	7440-48-4	20	9	11	45	ug/L	0.10	0.22	0.10	0.90	1.2	0.33	95% KM (Chebyshev) UCL	--
199-K-32A	non-Rad	Copper	7440-50-8	20	10	10	50	ug/L	0.20	0.52	0.29	2.9	0.97	0.89	95% KM Adjusted Gamma UCL	--
199-K-32A	non-Rad	Fluoride	16984-48-8	28	9	19	32	ug/L	46	130	54	103	0.16	70	95% KM (t) UCL	--
199-K-32A	non-Rad	Hexavalent Chromium	18540-29-9	23	23	0	100	ug/L	--	--	8.2	17	0.21	13	95% Modified-t UCL	--
199-K-32A	non-Rad	Iron	7439-89-6	26	25	1	96	ug/L	20	20	19	1,980	3.0	450	95% KM (Chebyshev) UCL	--
199-K-32A	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	4.1	16	0.84	16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-32A	non-Rad	Manganese	7439-96-5	26	8	18	31	ug/L	1.0	6.0	1.1	38	2.0	3.0	95% KM H-UCL	--
199-K-32A	non-Rad	Molybdenum	7439-98-7	19	18	1	95	ug/L	1.0	1.0	0.71	9.0	1.4	3.2	95% KM (Chebyshev) UCL	--
199-K-32A	non-Rad	Nickel	7440-02-0	26	15	11	58	ug/L	4.0	13	2.2	8.8	0.48	4.4	95% KM Adjusted Gamma UCL	--
199-K-32A	non-Rad	Nitrate	14797-55-8	28	28	0	100	ug/L	--	--	12,400	53,100	0.37	30,303	95% Student's-t UCL	--
199-K-32A	non-Rad	Nitrite	14797-65-0	28	7	21	25	ug/L	62	131	142	526	0.51	148	95% KM (t) UCL	--
199-K-32A	non-Rad	Selenium	7782-49-2	20	2	18	10	ug/L	0.60	2.0	0.70	1.7	0.57	1.1	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-32A	non-Rad	Silver	7440-22-4	28	1	27	4	ug/L	0.040	7.0	13	13	0	13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-32A	non-Rad	Strontium	7440-24-6	26	26	0	100	ug/L	--	--	220	322	0.090	279	95% Student's-t UCL	--
199-K-32A	non-Rad	Trichloroethene	79-01-6	3	1	2	33	ug/L	0.21	1.0	0.22	0.22	0	0.22	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-K-32A	non-Rad	Uranium	7440-61-1	14	14	0	100	ug/L	--	--	2.2	3.0	0.095	2.7	95% Student's-t UCL	--
199-K-32A	non-Rad	Vanadium	7440-62-2	26	10	16	38	ug/L	1.0	1.7	0.73	4.0	0.62	1.9	95% KM (BCA) UCL	--
199-K-32A	non-Rad	Zinc	7440-66-6	26	7	19	27	ug/L	3.3	7.0	3.5	27	0.91	7.0	95% KM (t) UCL	--
199-K-32A	Rad	Carbon-14	14762-75-5	28	28	0	100	pCi/L	--	--	115	359	0.25	275	95% Student's-t UCL	--
199-K-32A	Rad	Strontium-90	10098-97-2	25	16	9	64	pCi/L	1.1	2.0	1.6	7.4	0.58	2.7	95% KM (BCA) UCL	--
199-K-32A	Rad	Technetium-99	14133-76-7	27	9	18	33	pCi/L	5.8	40	13	22	0.21	11	95% KM (t) UCL	--
199-K-32A	Rad	Tritium	10028-17-8	32	32	0	100	pCi/L	--	--	1,800	13,200	0.73	8,991	95% Chebyshev (Mean, Sd) UCL	--
199-K-32B	non-Rad	Aluminum	7429-90-5	5	3	2	60	ug/L	10	20	15	190	1.3	132	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-32B	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	1.3	1.6	0.077	1.5	95% Student's-t UCL	--
199-K-32B	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	53	64	0.072	62	95% Student's-t UCL	--
199-K-32B	non-Rad	Boron	7440-42-8	4	4	0	100	ug/L	--	--	21	35	0.21	35	95% Student's-t UCL	--
199-K-32B	non-Rad	Cadmium	7440-43-9	5	1	4	20	ug/L	0.099	0.10	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-32B	non-Rad	Chromium	7440-47-3	6	6	0	100	ug/L	--	--	14	41	0.53	29	95% Modified-t UCL	--
199-K-32B	non-Rad	Cobalt	7440-48-4	5	2	3	40	ug/L	0.10	0.22	0.15	0.32	0.50	0.32	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-32B	non-Rad	Copper	7440-50-8	5	5	0	100	ug/L	--	--	0.41	1.1	0.33	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-32B	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	198	290	0.16	274	95% Student's-t UCL	--
199-K-32B	non-Rad	Hexavalent Chromium	18540-29-9	6	6	0	100	ug/L	--	--	2.9	7.1	0.31	6.8	95% Student's-t UCL	--
199-K-32B	non-Rad	Iron	7439-89-6	6	6	0	100	ug/L	--	--	43	180	0.53	133	95% Student's-t UCL	--
199-K-32B	non-Rad	Manganese	7439-96-5	6	4	2	67	ug/L	4.0	6.0	1.5	4.0	0.42	3.9	95% KM (t) UCL	--
199-K-32B	non-Rad	Molybdenum	7439-98-7	5	5	0	100	ug/L	--	--	3.7	4.3	0.059	4.2	95% Student's-t UCL	--
199-K-32B	non-Rad	Nickel	7440-02-0	6	5	1	83	ug/L	67	67	4.0	15	0.61	11	95% KM (t) UCL	--
199-K-32B	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	10,200	10,700	0.021	10,628	95% Student's-t UCL	--
199-K-32B	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	118	131	210	210	0	210	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-32B	non-Rad	Selenium	7782-49-2	5	3	2	60	ug/L	1.6	2.0	1.8	2.3	0.12	2.2	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-32B	non-Rad	Silver	7440-22-4	6	3	3	50	ug/L	0.10	7.0	0.040	0.11	0.57	0.099	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-32B	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	412	461	0.043	451	95% Student's-t UCL	--
199-K-32B	non-Rad	Tin	7440-31-5	5	1	4	20	ug/L	0.10	1.1	3.1	3.1	0	3.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-32B	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	3.0	3.2	0.032	3.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-32B	non-Rad	Vanadium	7440-62-2	6	4	2	67	ug/L	4.4	17	4.2	6.1	0.19	5.5	95% KM (t) UCL	--
199-K-32B	Rad	Strontium-90	10098-97-2	4	1	3	25	pCi/L	1.1	1.6	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-34	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	130	130	0	130	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-34	non-Rad	Acetone	67-64-1	10	2	8	20	ug/L	0.34	5.0	2.9	8.6	0.70	6.5	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-34	non-Rad	Aluminum	7429-90-5	8	4	4	50	ug/L	10	17	16	118	1.2	88	95% KM (Chebyshev) UCL	--
199-K-34	non-Rad	Antimony	7440-36-0	7	1	6	14	ug/L	0.60	1.0	0.55	0.55	0	0.55	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-34	non-Rad	Arsenic	7440-38-2	7	6	1	86	ug/L	1.7	1.7	0.95	2.7	0.42	2.1	95% KM (t) UCL	--
199-K-34	non-Rad	Barium	7440-39-3	22	22	0	100	ug/L	--	--	23	39	0.16	33	95% Student's-t UCL	--
199-K-34	non-Rad	Boron	7440-42-8	7	6	1	86	ug/L	19	19	15	46	0.43	36	95% KM (t) UCL	--
199-K-34	non-Rad	Chloroform	67-66-3	10	5	5	50	ug/L	0.30	1.0	0.14	0.51	0.42	0.41	95% KM (t) UCL	--
199-K-34	non-Rad	Chromium	7440-47-3	23	23	0	100	ug/L	--	--	8.6	49	0.63	28	95% Adjusted Gamma UCL	--
199-K-34	non-Rad	Cobalt	7440-48-4	7	6	1	86	ug/L	0.10	0.10	0.26	5.6	1.5	4.5	95% KM (Chebyshev) UCL	--
199-K-34	non-Rad	Copper	7440-50-8	7	5	2	71	ug/L	0.20	0.89	0.47	1.3	0.45	0.91	95% KM (t) UCL	--
199-K-34	non-Rad	Fluoride	16984-48-8	40	39	1	98	ug/L	60	60	149	290	0.19	227	95% KM (t) UCL	--
199-K-34	non-Rad	Hexane	110-54-3	1	1	0	100	ug/L	--	--	0.53	0.53	0	0.53	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-34	non-Rad	Hexavalent Chromium	18540-29-9	30	30	0	100	ug/L	--	--	2.0	47	0.98	20	95% Chebyshev (Mean, Sd) UCL	--
199-K-34	non-Rad	Iron	7439-89-6	22	19	3	86	ug/L	18	30	18	318	0.85	138	95% GROS Adjusted Gamma UCL	--
199-K-34	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	5.5	20	0.80	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-34	non-Rad	Manganese	7439-96-5	22	10	12	45	ug/L	3.3	6.0	2.6	50	1.3	20	95% KM (Chebyshev) UCL	--
199-K-34	non-Rad	Molybdenum	7439-98-7	7	6	1	86	ug/L	4.0	4.0	1.6	2.7	0.21	2.5	95% KM (t) UCL	--
199-K-34	non-Rad	Nickel	7440-02-0	22	17	5	77	ug/L	4.0	4.0	12	300	0.83	168	95% GROS Adjusted Gamma UCL	--
199-K-34	non-Rad	Nitrate	14797-55-8	40	40	0	100	ug/L	--	--	27,900	66,800	0.26	45,516	95% Student's-t UCL	--
199-K-34	non-Rad	Nitrite	14797-65-0	40	7	33	18	ug/L	9.9	131	179	289	0.17	73	95% KM (t) UCL	--
199-K-34	non-Rad	Selenium	7782-49-2	7	4	3	57	ug/L	0.70	1.5	0.97	2.2	0.32	1.8	95% KM (t) UCL	--
199-K-34	non-Rad	Silver	7440-22-4	22	1	21	5	ug/L	0.10	7.0	0.042	0.042	0	0.042	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-34	non-Rad	Strontium	7440-24-6	18	18	0	100	ug/L	--	--	234	409	0.19	322	95% Modified-t UCL	--
199-K-34	non-Rad	Trichloroethene	79-01-6	10	6	4	60	ug/L	0.50	1.0	0.39	4.0	0.52	2.5	95% KM (t) UCL	--
199-K-34	non-Rad	Uranium	7440-61-1	12	12	0	100	ug/L	--	--	3.7	7.2	0.16	5.9	95% Student's-t UCL	--
199-K-34	non-Rad	Vanadium	7440-62-2	22	9	13	41	ug/L	4.1	17	2.8	14	0.82	5.1	95% KM (BCA) UCL	--
199-K-34	non-Rad	Zinc	7440-66-6	22	1	21	5	ug/L	2.0	7.0	6.5	6.5	0	6.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-34	Rad	Carbon-14	14762-75-5	24	24	0	100	pCi/L	--	--	654	8,210	1.1	3,922	95% Chebyshev (Mean, Sd) UCL	--
199-K-34	Rad	Strontium-90	10098-97-2	24	24	0	100	pCi/L	--	--	16	56	0.22	41	95% Student's-t UCL	--
199-K-34	Rad	Technetium-99	14133-76-7	10	3	7	30	pCi/L	5.9	10	9.9	64	0.81	27	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-34	Rad	Tritium	10028-17-8	34	34	0	100	pCi/L	--	--	669	4,800	0.53	2,274	95% Adjusted Gamma UCL	--
199-K-35, K-195, K-205	non-Rad	Acetone	67-64-1	13	4	9	31	ug/L	3.0	3.0	3.5	6.2	0.27	4.1	95% KM (t) UCL	--
199-K-35, K-195, K-205	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	3.7	4.0	0.049	4.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-35, K-195, K-205	non-Rad	Barium	7440-39-3	25	25	0	100	ug/L	--	--	33	60	0.14	43	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-35, K-195, K-205	non-Rad	Boron	7440-42-8	4	2	2	50	ug/L	15	15	11	15	0.18	15	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-35, K-195, K-205	non-Rad	Chloroform	67-66-3	13	12	1	92	ug/L	1.0	1.0	0.30	0.50	0.15	0.39	95% KM (t) UCL	--
199-K-35, K-195, K-205	non-Rad	Chromium	7440-47-3	26	26	0	100	ug/L	--	--	20	3,250	1.7	569	95% Adjusted Gamma UCL	--
199-K-35, K-195, K-205	non-Rad	Fluoride	16984-48-8	28	28	0	100	ug/L	--	--	93	386	0.29	241	95% Student's-t UCL	--
199-K-35, K-195, K-205	non-Rad	Hexavalent Chromium	18540-29-9	39	39	0	100	ug/L	--	--	13	3,310	1.9	399	95% Adjusted Gamma UCL	--
199-K-35, K-195, K-205	non-Rad	Iron	7439-89-6	26	8	18	31	ug/L	18	30	19	173	1.1	31	95% KM H-UCL	--
199-K-35, K-195, K-205	non-Rad	Manganese	7439-96-5	25	14	11	56	ug/L	1.0	4.0	2.6	14	0.39	5.7	95% KM (t) UCL	--
199-K-35, K-195, K-205	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	1.8	3.0	0.28	3.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-35, K-195, K-205	non-Rad	Nickel	7440-02-0	25	4	21	16	ug/L	0.50	4.0	1.4	5.0	0.73	2.4	95% KM (Chebyshev) UCL	--
199-K-35, K-195, K-205	non-Rad	Nitrate	14797-55-8	28	28	0	100	ug/L	--	--	22,100	36,700	0.21	29,937	95% Modified-UCL	--
199-K-35, K-195, K-205	non-Rad	Nitrite	14797-65-0	28	7	21	25	ug/L	118	131	210	1,662	0.78	363	95% KM (t) UCL	--
199-K-35, K-195, K-205	non-Rad	Silver	7440-22-4	25	1	24	4	ug/L	0.10	5.0	9.0	9.0	0	9.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-35, K-195, K-205	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	215	370	0.12	296	95% Student's-t UCL	--
199-K-35, K-195, K-205	non-Rad	Tin	7440-31-5	3	1	2	33	ug/L	1.0	1.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-K-35, K-195, K-205	non-Rad	Trichloroethene	79-01-6	13	13	0	100	ug/L	--	--	3.0	5.4	0.14	4.8	95% Student's-t UCL	--
199-K-35, K-195, K-205	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	1.4	1.7	0.11	1.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-35, K-195, K-205	non-Rad	Vanadium	7440-62-2	26	15	11	58	ug/L	8.0	12	5.9	20	0.39	10	95% KM Adjusted Gamma UCL	--
199-K-35, K-195, K-205	non-Rad	Zinc	7440-66-6	25	3	22	12	ug/L	3.3	6.0	4.6	8.9	0.33	4.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-35, K-195, K-205	Rad	Carbon-14	14762-75-5	14	14	0	100	pCi/L	--	--	86	391	0.40	301	95% Student's-t UCL	--
199-K-35, K-195, K-205	Rad	Strontium-90	10098-97-2	13	1	12	8	pCi/L	0.74	2.0	2.7	2.7	0	2.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-35, K-195, K-205	Rad	Technetium-99	14133-76-7	4	4	0	100	pCi/L	--	--	7.2	76	0.66	76	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-35, K-195, K-205	Rad	Tritium	10028-17-8	13	13	0	100	pCi/L	--	--	877	1,650	0.16	1,327	95% Student's-t UCL	--
199-K-36	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	13	43	0.58	43	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-36	non-Rad	Arsenic	7440-38-2	4	4	0	100	ug/L	--	--	1.9	5.6	0.38	5.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-36	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	40	72	0.17	62	95% Student's-t UCL	--
199-K-36	non-Rad	Beryllium	7440-41-7	4	1	3	25	ug/L	0.10	0.10	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-36	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	19	19	51	51	0	51	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-36	non-Rad	Bromomethane	74-83-9	3	2	1	67	ug/L	1.0	1.0	0.12	1.0	1.1	1.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-36	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	1.0	1.0	0.67	0.70	0.031	0.70	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-36	non-Rad	Chloromethane	74-87-3	3	1	2	33	ug/L	0.077	1.0	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-K-36	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	26	454	0.68	268	95% Student's-t UCL	--
199-K-36	non-Rad	Cobalt	7440-48-4	4	3	1	75	ug/L	2.7	2.7	0.62	1.4	0.41	1.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-36	non-Rad	Copper	7440-50-8	4	3	1	75	ug/L	2.1	2.1	1.6	2.5	0.26	2.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-36	non-Rad	Fluoride	16984-48-8	12	12	0	100	ug/L	--	--	235	400	0.15	358	95% Student's-t UCL	--
199-K-36	non-Rad	Hexavalent Chromium	18540-29-9	16	16	0	100	ug/L	--	--	9.3	403	0.96	203	95% Student's-t UCL	--
199-K-36	non-Rad	Iron	7439-89-6	14	14	0	100	ug/L	--	--	32	838	1.1	474	95% Adjusted Gamma UCL	--
199-K-36	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	6.0	20	0.76	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-36	non-Rad	Manganese	7439-96-5	14	7	7	50	ug/L	0.70	4.0	1.6	11	0.65	5.2	95% KM (t) UCL	--
199-K-36	non-Rad	Mercury	7439-97-6	14	2	12	14	ug/L	0.060	0.10	0.068	0.072	0.040	0.070	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-36	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	4.3	4.6	0.043	4.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-36	non-Rad	Nickel	7440-02-0	14	14	0	100	ug/L	--	--	5.3	115	0.70	77	95% Student's-t UCL	--
199-K-36	non-Rad	Nitrate	14797-55-8	12	12	0	100	ug/L	--	--	19,000	33,300	0.18	28,054	95% Student's-t UCL	--
199-K-36	non-Rad	Nitrite	14797-65-0	12	3	9	25	ug/L	9.9	131	230	326	0.20	146	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-36	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	0.89	1.6	0.35	1.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-36	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	230	416	0.18	341	95% Student's-t UCL	--
199-K-36	non-Rad	Trichloroethene	79-01-6	3	2	1	67	ug/L	1.0	1.0	0.54	0.60	0.074	0.60	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-36	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	4.8	5.4	0.053	5.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-36	non-Rad	Vanadium	7440-62-2	14	11	3	79	ug/L	10	17	7.3	19	0.27	13	95% KM (t) UCL	--
199-K-36	Rad	Carbon-14	14762-75-5	14	14	0	100	pCi/L	--	--	56	158	0.39	119	95% Modified-t UCL	--
199-K-36	Rad	Strontium-90	10098-97-2	9	1	8	11	pCi/L	0.51	1.9	2.0	2.0	0	2.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-36	Rad	Technetium-99	14133-76-7	12	7	5	58	pCi/L	6.4	9.8	6.2	36	0.61	19	95% KM (t) UCL	--
199-K-36	Rad	Tritium	10028-17-8	14	10	4	71	pCi/L	160	310	320	701	0.26	455	95% KM (t) UCL	--
199-K-37	non-Rad	Acetone	67-64-1	5	1	4	20	ug/L	0.34	1.0	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-37	non-Rad	Aluminum	7429-90-5	5	2	3	40	ug/L	10	10	16	233	1.2	233	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-37	non-Rad	Arsenic	7440-38-2	5	5	0	100	ug/L	--	--	3.3	3.7	0.046	3.7	95% Student's-t UCL	--
199-K-37	non-Rad	Barium	7440-39-3	17	17	0	100	ug/L	--	--	13	32	0.18	27	95% Student's-t UCL	--
199-K-37	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	2	1	1	50	ug/L	1.0	1.0	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-37	non-Rad	Chloroform	67-66-3	5	4	1	80	ug/L	1.0	1.0	0.33	0.60	0.26	0.56	95% KM (t) UCL	--
199-K-37	non-Rad	Chromium	7440-47-3	16	16	0	100	ug/L	--	--	15	65	0.43	35	95% Student's-t UCL	--
199-K-37	non-Rad	Copper	7440-50-8	5	2	3	40	ug/L	0.20	0.20	0.30	2.2	1.1	2.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-37	non-Rad	Diethylphthalate	84-66-2	2	1	1	50	ug/L	1.0	1.0	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-37	non-Rad	Fluoride	16984-48-8	14	13	1	93	ug/L	60	60	74	210	0.30	168	95% KM (t) UCL	--
199-K-37	non-Rad	Hexavalent Chromium	18540-29-9	18	18	0	100	ug/L	--	--	16	57	0.37	32	95% Student's-t UCL	--
199-K-37	non-Rad	Iron	7439-89-6	17	2	15	12	ug/L	18	38	21	25	0.11	22	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-37	non-Rad	Lithium	7439-93-2	4	2	2	50	ug/L	4.0	4.0	5.9	6.0	0.012	6.0	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-37	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	4.3	4.5	0.011	4.4	95% Student's-t UCL	--
199-K-37	non-Rad	Nickel	7440-02-0	17	1	16	6	ug/L	1.5	67	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-K-37	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	5,800	11,100	0.24	8,880	95% Student's-t UCL	--
199-K-37	non-Rad	Nitrite	14797-65-0	14	1	13	7	ug/L	118	131	149	149	0	149	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-37	non-Rad	Selenium	7782-49-2	5	5	0	100	ug/L	--	--	0.87	1.9	0.29	1.9	95% Student's-t UCL	--
199-K-37	non-Rad	Strontium	7440-24-6	17	17	0	100	ug/L	--	--	96	254	0.20	213	95% Student's-t UCL	--
199-K-37	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	2.1	2.9	0.12	2.8	95% Student's-t UCL	--
199-K-37	non-Rad	Vanadium	7440-62-2	17	11	6	65	ug/L	5.0	17	9.4	17	0.19	13	95% KM Student's t	--
199-K-37	non-Rad	Zinc	7440-66-6	17	2	15	12	ug/L	3.3	30	4.2	5.4	0.17	4.0	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-37	Rad	Carbon-14	14762-75-5	10	1	9	10	pCi/L	4.5	55	4.5	4.5	0	4.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon-14 was not processed!
199-K-37	Rad	Strontium-90	10098-97-2	12	7	5	58	pCi/L	1.4	1.9	2.3	4.9	0.22	3.7	95% KM (t) UCL	--
199-K-37	Rad	Tritium	10028-17-8	17	9	8	53	pCi/L	97	368	115	680	0.53	344	95% KM (t) UCL	--
199-K-37	Rad	Uranium-233/234	U-233/234	3	3	0	100	pCi/L	--	--	0.85	1.1	0.13	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-K-37	Rad	Uranium-235	15117-96-1	3	1	2	33	pCi/L	0.068	0.10	0.075	0.075	0	0.075	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Uranium-235 was not processed!
199-K-37	Rad	Uranium-238	U-238	3	3	0	100	pCi/L	--	--	0.69	0.87	0.12	0.87	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-72-73	non-Rad	Aluminum	7429-90-5	11	4	7	36	ug/L	10	20	20	51	0.35	28	95% KM (t) UCL	--
699-72-73	non-Rad	Arsenic	7440-38-2	11	11	0	100	ug/L	--	--	3.1	5.3	0.18	4.3	95% Student's-t UCL	--
699-72-73	non-Rad	Barium	7440-39-3	11	11	0	100	ug/L	--	--	21	34	0.13	30	95% Student's-t UCL	--
699-72-73	non-Rad	Boron	7440-42-8	8	7	1	88	ug/L	25	25	18	25	0.13	23	95% KM (t) UCL	--
699-72-73	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.084	1.0	0.98	0.98	0	0.98	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
699-72-73	non-Rad	Chromium	7440-47-3	11	11	0	100	ug/L	--	--	3.8	12	0.42	9.3	95% Student's-t UCL	--
699-72-73	non-Rad	Cobalt	7440-48-4	11	1	10	9	ug/L	0.10	0.90	0.14	0.14	0	0.14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
699-72-73	non-Rad	Copper	7440-50-8	11	3	8	27	ug/L	0.20	0.68	0.22	0.56	0.58	0.32	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
699-72-73	non-Rad	Fluoride	16984-48-8	11	11	0	100	ug/L	--	--	200	510	0.29	379	95% Student's-t UCL	--
699-72-73	non-Rad	Hexavalent Chromium	18540-29-9	11	7	4	64	ug/L	2.0	3.7	2.6	10	0.32	7.8	95% KM (t) UCL	--
699-72-73	non-Rad	Iron	7439-89-6	8	7	1	88	ug/L	40	40	39	230	0.58	162	95% KM (t) UCL	--
699-72-73	non-Rad	Lithium	7439-93-2	2	2	0	100	ug/L	--	--	6.3	19	0.71	19	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-72-73	non-Rad	Manganese	7439-96-5	8	8	0	100	ug/L	--	--	1.4	17	0.76	11	95% Student's-t UCL	--
699-72-73	non-Rad	Molybdenum	7439-98-7	10	10	0	100	ug/L	--	--	3.4	6.0	0.14	5.6	95% Student's-t UCL	--
699-72-73	non-Rad	Nickel	7440-02-0	8	4	4	50	ug/L	0.80	4.0	0.33	0.52	0.20	0.51	95% KM (t) UCL	--
699-72-73	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	7,080	24,900	0.49	20,992	95% Adjusted Gamma UCL	--
699-72-73	non-Rad	Nitrite	14797-65-0	11	2	9	18	ug/L	9.9	131	164	239	0.26	112	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-72-73	non-Rad	Selenium	7782-49-2	11	7	4	64	ug/L	2.0	2.0	1.7	4.0	0.27	2.9	95% KM (t) UCL	--
699-72-73	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	124	209	0.16	186	95% Student's-t UCL	--
699-72-73	non-Rad	Thallium	7440-28-0	11	1	10	9	ug/L	0.10	0.90	0.86	0.86	0	0.86	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
699-72-73	non-Rad	Tin	7440-31-5	10	2	8	20	ug/L	0.10	1.2	0.17	3.4	1.3	3.4	Maximum Detect	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
699-72-73	non-Rad	Trichloroethene	79-01-6	3	2	1	67	ug/L	1.0	1.0	0.89	0.98	0.068	0.98	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-72-73	non-Rad	Uranium	7440-61-1	8	8	0	100	ug/L	--	--	1.7	2.4	0.12	2.2	95% Student's-t UCL	--
699-72-73	non-Rad	Vanadium	7440-62-2	8	7	1	88	ug/L	15	15	12	18	0.16	15	95% KM (t) UCL	--
699-72-73	non-Rad	Zinc	7440-66-6	8	1	7	13	ug/L	4.0	9.3	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
699-72-73	Rad	Technetium-99	14133-76-7	9	7	2	78	pCi/L	9.5	16	11	52	0.67	35	95% KM (t) UCL	--
699-72-73	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	1,540	12,000	0.76	11,560	95% Adjusted Gamma UCL	--
699-73-61	non-Rad	Aluminum	7429-90-5	6	1	5	17	ug/L	10	20	235	235	0	235	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
699-73-61	non-Rad	Arsenic	7440-38-2	6	4	2	67	ug/L	0.40	0.80	1.3	2.0	0.18	1.8	95% KM (t) UCL	--
699-73-61	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	25	37	0.17	35	95% Student's-t UCL	--
699-73-61	non-Rad	Boron	7440-42-8	5	1	4	20	ug/L	19	41	8.0	8.0	0	8.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Boron was not processed!
699-73-61	non-Rad	Cadmium	7440-43-9	6	1	5	17	ug/L	0.20	0.20	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
699-73-61	non-Rad	Chloroform	67-66-3	5	3	2	60	ug/L	0.10	1.0	0.11	0.15	0.15	0.15	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
699-73-61	non-Rad	Chloromethane	74-87-3	5	1	4	20	ug/L	0.077	1.0	0.14	0.14	0	0.14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
699-73-61	non-Rad	Chromium	7440-47-3	6	6	0	100	ug/L	--	--	0.83	7.3	0.49	6.6	95% Student's-t UCL	--
699-73-61	non-Rad	Cobalt	7440-48-4	6	1	5	17	ug/L	0.10	0.10	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
699-73-61	non-Rad	Copper	7440-50-8	6	4	2	67	ug/L	0.20	0.20	0.38	3.2	0.99	1.9	95% KM (t) UCL	--
699-73-61	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	61	240	0.44	228	95% Student's-t UCL	--
699-73-61	non-Rad	Iron	7439-89-6	6	5	1	83	ug/L	38	38	76	1,280	1.5	1,175	95% KM (Chebyshev) UCL	--
699-73-61	non-Rad	Lithium	7439-93-2	4	3	1	75	ug/L	4.0	4.0	4.9	10	0.35	9.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
699-73-61	non-Rad	Manganese	7439-96-5	6	6	0	100	ug/L	--	--	12	70	0.52	58	95% Student's-t UCL	--
699-73-61	non-Rad	Molybdenum	7439-98-7	5	5	0	100	ug/L	--	--	1.8	4.5	0.34	4.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-73-61	non-Rad	Nickel	7440-02-0	6	1	5	17	ug/L	4.0	4.0	0.82	0.82	0	0.82	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
699-73-61	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	7,970	9,830	0.075	9,199	95% Student's-t UCL	--
699-73-61	non-Rad	Nitrite	14797-65-0	6	2	4	33	ug/L	118	118	30	147	0.93	147	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-73-61	non-Rad	Selenium	7782-49-2	6	5	1	83	ug/L	2.0	2.0	0.66	1.4	0.29	1.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-73-61	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	171	233	0.12	228	95% Student's-t UCL	--

Table B-7. 100-KR-4 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-73-61	non-Rad	Tin	7440-31-5	5	1	4	20	ug/L	0.10	0.10	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
699-73-61	non-Rad	Trichloroethene	79-01-6	5	3	2	60	ug/L	0.21	1.0	0.25	0.46	0.31	0.44	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
699-73-61	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	0.12	1.5	0.57	1.3	95% Student's-t UCL	--
699-73-61	non-Rad	Vanadium	7440-62-2	6	3	3	50	ug/L	12	17	0.63	20	0.88	14	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
699-73-61	non-Rad	Zinc	7440-66-6	6	6	0	100	ug/L	--	--	291	1,270	0.76	1,177	95% Chebyshev (Mean, Sd) UCL	--
699-73-61	Rad	Technetium-99	14133-76-7	3	2	1	67	pCi/L	7.5	7.5	7.7	13	0.36	13	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-73-61	Rad	Tritium	10028-17-8	8	2	6	25	pCi/L	170	428	230	260	0.087	245	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Malhotra, and Lee (2006).
699-73-61	Rad	Uranium-233/234	U-233/234	2	2	0	100	pCi/L	--	--	0.48	0.67	0.23	0.67	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	Rad	Uranium-235	15117-96-1	2	1	1	50	pCi/L	0.090	0.090	0.048	0.048	0	0.048	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	Rad	Uranium-238	U-238	2	2	0	100	pCi/L	--	--	0.41	0.53	0.18	0.53	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table B-8. 100-KR-4 Groundwater Operable Unit Grouped Well Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
ALL WELLS	non-Rad	1,2,4-Trichlorobenzene	120-82-1	11	1	10	9.1	ug/L	1.0	1.0	0.65	0.65	0	0.65	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 1,2,4-Trichlorobenzene was not processed!
ALL WELLS	non-Rad	1,2-Dichlorobenzene	95-50-1	11	1	10	9.1	ug/L	1.0	1.0	0.20	0.20	0	0.20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 1,2-Dichlorobenzene was not processed!
ALL WELLS	non-Rad	2-Butanol	78-92-2	4	4	0	100	ug/L	--	--	21	30	0.18	30	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
ALL WELLS	non-Rad	2-Butanone	78-93-3	510	16	494	3.1	ug/L	0.47	3.0	0.47	1.2	0.28	0.50	95% KM (t) UCL	--
ALL WELLS	non-Rad	2-Propanol	67-63-0	28	21	7.0	75	ug/L	5.0	250	6.5	370	1.1	102	95% Gamma Adjusted KM-UCL	--
ALL WELLS	non-Rad	Acetone	67-64-1	510	57	453	11	ug/L	0.34	5.0	0.50	11	0.80	0.78	95% KM Approximate Gamma UCL	--
ALL WELLS	non-Rad	Aldrin	309-00-2	15	2	13	13	ug/L	0.010	0.010	0.12	0.65	0.97	0.31	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL WELLS	non-Rad	Aluminum	7429-90-5	589	255	334	43	ug/L	5.0	20	5.5	1,950	2.4	44	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Antimony	7440-36-0	622	38	584	6.1	ug/L	0.084	15	0.10	5.6	2.1	0.32	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Arsenic	7440-38-2	620	546	74	88	ug/L	0.40	10	0.44	10	0.49	3.5	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Barium	7440-39-3	1,297	1,297	0	100	ug/L	--	--	5.1	83	0.33	36	95% Modified+1 UCL	--
ALL WELLS	non-Rad	Beryllium	7440-41-7	622	14	608	2.3	ug/L	0.050	1.0	0.23	4.8	1.7	0.10	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	10	2	8	20	ug/L	1.0	1.0	1.2	11	1.1	10	97.5% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL WELLS	non-Rad	Boron	7440-42-8	410	265	145	65	ug/L	4.0	41	4.1	852	2.8	32	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Bromodichloromethane	75-27-4	64	6	58	9.4	ug/L	0.082	1.0	0.10	0.16	0.19	0.094	95% KM (t) UCL	--
ALL WELLS	non-Rad	Bromomethane	74-83-9	64	17	47	27	ug/L	0.084	2.0	0.11	1.6	0.51	0.63	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Cadmium	7440-43-9	622	15	607	2.4	ug/L	0.050	1.0	0.10	5.0	2.2	0.10	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Carbon disulfide	75-15-0	510	3	507	0.59	ug/L	0.050	1.6	0.31	3.3	1.2	0.074	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL WELLS	non-Rad	Carbon tetrachloride	56-23-5	510	1	509	0.20	ug/L	0.063	1.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
ALL WELLS	non-Rad	Chlorobenzene	108-90-7	495	1	494	0.20	ug/L	0.11	1.0	0.17	0.17	0	0.17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chlorobenzene was not processed!
ALL WELLS	non-Rad	Chloroform	67-66-3	510	301	209	59	ug/L	0.10	1.0	0.11	8.3	1.5	0.73	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Chloromethane	74-87-3	64	8	56	13	ug/L	0.077	1.0	0.10	0.21	0.27	0.096	95% KM (t) UCL	--
ALL WELLS	non-Rad	Chromium	7440-47-3	1,288	1,243	45	97	ug/L	0.20	14	0.69	3,250	2.9	61	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Cobalt	7440-48-4	622	175	447	28	ug/L	0.050	2.7	0.066	14	2.5	0.33	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Copper	7440-50-8	622	389	233	63	ug/L	0.10	10	0.16	62	2.0	2.7	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Cyanide	57-12-5	31	2	29	6.5	ug/L	1.7	4.0	4.2	6.5	0.30	2.3	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL WELLS	non-Rad	Diethylphthalate	84-66-2	10	1	9	10	ug/L	1.0	1.0	2.2	2.2	0	2.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Diethylphthalate was not processed!
ALL WELLS	non-Rad	Ethylbenzene	100-41-4	510	1	509	0.20	ug/L	0.086	1.0	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
ALL WELLS	non-Rad	Fluoride	16984-48-8	1,283	1,143	140	89	ug/L	30	130	44	510	0.41	182	95% KM (BCA) UCL	--
ALL WELLS	non-Rad	Hexane	110-54-3	3	3	0	100	ug/L	--	--	0.46	0.83	0.32	0.83	Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
ALL WELLS	non-Rad	Hexavalent Chromium	18540-29-9	1,473	1,322	151	90	ug/L	1.5	9.7	1.5	3,310	3.0	54	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Iron	7439-89-6	1,081	518	563	48	ug/L	13	50	13	7,600	2.9	176	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Lithium	7439-93-2	45	37	8.0	82	ug/L	4.0	4.0	29	0.69	15	95% KM (Chebyshev) UCL	--	
ALL WELLS	non-Rad	Manganese	7439-96-5	1,139	398	741	35	ug/L	0.10	6.0	0.26	235	2.1	235	Maximum Detect	--
ALL WELLS	non-Rad	Mercury	7439-97-6	144	6	138	4.2	ug/L	0.030	0.20	0.068	0.19	0.47	0.040	95% KM (t) UCL	--
ALL WELLS	non-Rad	Methylene chloride	75-09-2	510	26	484	5.1	ug/L	0.11	1.6	0.31	14	1.2	0.31	95% KM Approximate Gamma UCL	--
ALL WELLS	non-Rad	Molybdenum	7439-98-7	571	538	33	94	ug/L	0.10	4.0	0.15	16	0.73	4.0	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Nickel	7440-02-0	1,139	416	723	37	ug/L	0.20	67	0.12	300	2.3	7.6	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Nitrate	14797-55-8	1,283	1,283	0	100	ug/L	--	--	251	100,931	0.65	24,560	95% Chebyshev (Mean, Sd) UCL	--
ALL WELLS	non-Rad	Nitrite	14797-65-0	1,282	242	1,040	19	ug/L	9.9	312	30	4,010	1.1	64	95% KM (BCA) UCL	--
ALL WELLS	non-Rad	o-Xylene	95-47-6	1	1	0	100	ug/L	--	--	0.52	0.52	0	0.52	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable o-Xylene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
ALL WELLS	non-Rad	Selenium	7782-49-2	587	193	394	33	ug/L	0.42	10	0.64	5.8	0.50	1.3	95% KM Approximate Gamma UCL	--
ALL WELLS	non-Rad	Silver	7440-22-4	1,297	43	1,254	3.3	ug/L	0.033	7.0	0.040	20	1.6	0.28	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Strontium	7440-24-6	1,049	1,049	0	100	ug/L	--	--	54	522	0.25	266	95% Modified+1 UCL	--

Table B-8. 100-KR-4 Groundwater Operable Unit Grouped Well Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
ALL WELLS	non-Rad	Styrene	100-42-5	64	2	62	3.1	ug/L	0.036	1.0	0.12	0.21	0.39	0.051	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL WELLS	non-Rad	Tetrahydrofuran	109-99-9	423	1	422	0.24	ug/L	0.50	2.0	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrahydrofuran was not processed!
ALL WELLS	non-Rad	Thallium	7440-28-0	587	26	561	4.4	ug/L	0.014	5.0	0.020	2.4	0.60	0.078	95% KM (t) UCL	--
ALL WELLS	non-Rad	Tin	7440-31-5	571	85	486	15	ug/L	0.050	39	0.062	8.4	1.2	0.47	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Toluene	108-88-3	510	6	504	1.2	ug/L	0.062	1.0	0.11	0.60	0.82	0.066	95% KM H-UCL	--
ALL WELLS	non-Rad	Trichloroethane	79-01-6	511	344	167	67	ug/L	0.16	1.0	0.18	9.5	0.41	3.0	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Uranium	7440-61-1	411	407	4.0	99	ug/L	0.067	0.23	0.095	27	0.72	3.4	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Vanadium	7440-62-2	1,114	853	261	77	ug/L	0.40	17	0.63	34	0.45	10	95% KM (Chebyshev) UCL	--
ALL WELLS	non-Rad	Xylenes (total)	1330-20-7	510	3	507	0.59	ug/L	0.11	1.0	0.24	2.8	1.2	0.13	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL WELLS	non-Rad	Zinc	7440-66-6	1,139	494	645	43	ug/L	1.6	30	2.1	1,270	2.6	30	95% KM (Chebyshev) UCL	--
ALL WELLS	Rad	Carbon-14	14762-75-5	1,034	748	286	72	pCi/L	3.4	58	4.4	40,100	2.9	1,770	95% KM (Chebyshev) UCL	--
ALL WELLS	Rad	Cesium-137	10045-97-3	636	1	635	0.16	pCi/L	0.95	29	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
ALL WELLS	Rad	Cobalt-60	10198-40-0	636	1	635	0.16	pCi/L	1.7	28	12	12	0	12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt-60 was not processed!
ALL WELLS	Rad	Nickel-63	13981-37-8	15	2	13	13	pCi/L	3.3	4.4	4.2	4.4	0.029	3.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL WELLS	Rad	Selenium-79	15758-45-9	7	1	6	14	pCi/L	12	29	25	25	0	25	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium-79 was not processed!
ALL WELLS	Rad	Strontium-90	10098-97-2	995	329	666	33	pCi/L	0.31	3.2	0.63	251	1.9	13	95% KM (Chebyshev) UCL	--
ALL WELLS	Rad	Technetium-99	14133-76-7	837	290	547	35	pCi/L	2.9	46	6.1	220	0.58	17	95% KM (Chebyshev) UCL	--
ALL WELLS	Rad	Tritium	10028-17-8	1,191	986	205	83	pCi/L	76	519	115	935,000	4.4	18,564	95% KM (Chebyshev) UCL	--
ALL WELLS	Rad	Uranium-233/234	U-233/234	17	17	0	100	pCi/L	--	--	0.42	2.9	0.55	1.2	95% Adjusted Gamma UCL	--
ALL WELLS	Rad	Uranium-235	15117-96-1	17	7	10	41	pCi/L	0.025	0.60	0.048	0.38	0.88	0.15	95% KM Adjusted Gamma UCL	--
ALL WELLS	Rad	Uranium-238	U-238	17	16	1.0	94	pCi/L	0.59	0.59	0.40	1.3	0.30	0.77	95% KM (t) UCL	--

Table B-9. 100-KR-4 Groundwater Operable Unit Well-Specific Analytes with a Recommended UCL Greater than the Maximum Detected Concentration

Well Name	Analyte	CAS No.	Number of Detects	Number of Non-Detects	Units	Minimum Detected Concentration	Maximum Detected Concentration	Recommended UCL	Recommended UCL Basis	97.5% Chebyshev (Mean, Sd) UCL	Final EPC	Final EPC Basis
199-K-106A	Bromomethane	74-83-9	2	1	ug/L	0.11	1.6	4.2	97.5% KM (Chebyshev) UCL	--	1.6	Maximum Detect
199-K-107A	Aluminum	7429-90-5	2	3	ug/L	46	110	143	95% KM (Chebyshev) UCL	--	110	Maximum Detect
199-K-107A	Antimony	7440-36-0	2	3	ug/L	0.27	0.58	1.1	95% KM (Chebyshev) UCL	--	0.58	Maximum Detect
199-K-107A	Silver	7440-22-4	2	15	ug/L	0.040	0.070	0.081	95% KM (t) UCL	--	0.070	Maximum Detect
199-K-108A	Bromomethane	74-83-9	2	1	ug/L	0.12	1.1	2.8	97.5% KM (Chebyshev) UCL	--	1.1	Maximum Detect
199-K-11	hexavalent Chromium	18540-29-9	8	2	ug/L	3.2	17	12	95% KM Adjusted Gamma UCL	--	17	Maximum Detect
199-K-110A	Antimony	7440-36-0	2	6	ug/L	0.16	0.20	0.22	95% KM (t) UCL	--	0.20	Maximum Detect
199-K-111A	Antimony	7440-36-0	2	7	ug/L	0.16	0.81	0.90	95% KM (t) UCL	--	0.81	Maximum Detect
199-K-111A	Chloroform	67-66-3	3	3	ug/L	0.50	0.52	0.52	95% KM (t) UCL	--	0.52	Maximum Detect
199-K-113A	Uranium	7440-61-1	7	0	ug/L	0.28	27	501	95% Hall's Bootstrap UCL	28	27	Maximum Detect
199-K-116A	Boron	7440-42-8	3	6	ug/L	5.4	7.1	7.5	95% KM (t) UCL	--	7.1	Maximum Detect
199-K-117A	Antimony	7440-36-0	3	25	ug/L	0.10	0.17	0.18	95% KM (t) UCL	--	0.17	Maximum Detect
199-K-120A	Copper	7440-50-8	11	1	ug/L	0.65	44	26	95% KM Bootstrap UCL	--	44	Maximum Detect
199-K-120A	Selenium	7782-49-2	2	10	ug/L	0.71	0.72	0.72	95% KM (t) UCL	--	0.72	Maximum Detect
199-K-120A	Tin	7440-31-5	2	10	ug/L	0.12	0.72	0.79	95% KM (Chebyshev) UCL	--	0.72	Maximum Detect
199-K-125A	Tin	7440-31-5	2	9	ug/L	0.14	0.63	0.94	95% KM (Chebyshev) UCL	--	0.63	Maximum Detect
199-K-132	2-Propanol	67-63-0	3	0	ug/L	11	80	102	95% Student's-t UCL	168	80	Maximum Detect
199-K-132	Arsenic	7440-38-2	3	1	ug/L	1.7	2.4	2.6	95% KM (t) UCL	--	2.4	Maximum Detect
199-K-132	Boron	7440-42-8	3	1	ug/L	10	15	16	95% KM (t) UCL	--	15	Maximum Detect
199-K-132	Molybdenum	7439-98-7	3	1	ug/L	1.1	1.9	2.0	95% KM (t) UCL	--	1.9	Maximum Detect
199-K-132	Uranium	7440-61-1	4	0	ug/L	1.4	4.5	4.7	95% Student's-t UCL	7.4	4.5	Maximum Detect
199-K-137	Chloroform	67-66-3	2	1	ug/L	0.31	0.53	0.63	95% KM (t) UCL	--	0.53	Maximum Detect
199-K-137	Trichloroethene	79-01-6	3	0	ug/L	3.6	4.4	4.8	95% Student's-t UCL	5.6	4.4	Maximum Detect
199-K-140	Copper	7440-50-8	9	2	ug/L	0.39	32	31	95% KM Bootstrap UCL	--	32	Maximum Detect
199-K-141	Copper	7440-50-8	7	0	ug/L	0.68	20	26	95% Adjusted Gamma UCL	27	20	Maximum Detect
199-K-142	Antimony	7440-36-0	2	12	ug/L	0.11	0.19	0.22	95% KM (t) UCL	--	0.19	Maximum Detect
199-K-142	Boron	7440-42-8	3	5	ug/L	4.4	7.0	7.1	95% KM (t) UCL	--	7.0	Maximum Detect
199-K-142	Chloroform	67-66-3	2	1	ug/L	0.91	1.2	1.3	95% KM (t) UCL	--	1.2	Maximum Detect
199-K-151	Antimony	7440-36-0	2	15	ug/L	0.15	0.16	0.16	95% KM (t) UCL	--	0.16	Maximum Detect
199-K-151	romodichloromethai	75-27-4	3	2	ug/L	0.10	0.16	0.16	95% KM (t) UCL	--	0.16	Maximum Detect
199-K-151	Manganese	7439-96-5	6	8	ug/L	0.33	30	72	95% KM Bootstrap UCL	--	30	Maximum Detect
199-K-152	Aluminum	7429-90-5	5	0	ug/L	10	272	863	95% Adjusted Gamma UCL	386	272	Maximum Detect
199-K-152	Bromomethane	74-83-9	2	3	ug/L	0.19	1.1	1.4	95% KM (Chebyshev) UCL	--	1.1	Maximum Detect
199-K-152	Chloroform	67-66-3	5	1	ug/L	0.49	1.8	1.9	95% KM Adjusted Gamma UCL	--	1.8	Maximum Detect
199-K-152	Chloromethane	74-87-3	2	3	ug/L	0.14	0.21	0.21	95% KM (t) UCL	--	0.21	Maximum Detect
199-K-152	Lithium	7439-93-2	2	2	ug/L	4.6	5.0	5.1	95% KM (t) UCL	--	5.0	Maximum Detect
199-K-152	Molybdenum	7439-98-7	4	0	ug/L	4.5	16	20	95% Chebyshev (Mean, Sd) UCL	25	16	Maximum Detect
199-K-152	Selenium	7782-49-2	5	0	ug/L	0.67	1.4	1.4	95% Student's-t UCL	2.0	1.4	Maximum Detect
199-K-157	Arsenic	7440-38-2	4	1	ug/L	1.8	9.0	9.1	95% Hall's Bootstrap	--	9.0	Maximum Detect
199-K-157	Chloroform	67-66-3	2	1	ug/L	0.48	0.86	1.2	95% KM (t) UCL	--	0.86	Maximum Detect
199-K-157	Selenium	7782-49-2	3	0	ug/L	1.6	2.4	2.7	95% Student's-t UCL	3.5	2.4	Maximum Detect
199-K-157	Uranium	7440-61-1	3	0	ug/L	3.1	3.7	3.9	95% Student's-t UCL	4.5	3.7	Maximum Detect
199-K-173	Copper	7440-50-8	9	2	ug/L	0.23	20	11	95% KM Bootstrap UCL	--	20	Maximum Detect
199-K-18	Aluminum	7429-90-5	2	1	ug/L	12	36	61	95% KM (Chebyshev) UCL	--	36	Maximum Detect
199-K-18	Chloroform	67-66-3	3	0	ug/L	2.0	2.1	2.2	95% Student's-t UCL	2.3	2.1	Maximum Detect
199-K-18	Selenium	7782-49-2	3	0	ug/L	1.1	1.8	2.0	95% Student's-t UCL	2.7	1.8	Maximum Detect
199-K-18	Uranium	7440-61-1	3	0	ug/L	0.65	0.79	0.83	95% Student's-t UCL	0.98	0.79	Maximum Detect
199-K-182	Aluminum	7429-90-5	2	1	ug/L	10	15	17	95% KM (t) UCL	--	15	Maximum Detect
199-K-182	Chloroform	67-66-3	3	0	ug/L	0.93	1.1	1.2	95% Student's-t UCL	1.3	1.1	Maximum Detect
199-K-182	Lithium	7439-93-2	2	1	ug/L	8.0	16	21	95% KM (t) UCL	--	16	Maximum Detect
199-K-182	Molybdenum	7439-98-7	3	0	ug/L	4.2	4.5	4.7	95% Student's-t UCL	5.0	4.5	Maximum Detect
199-K-182	Selenium	7782-49-2	3	0	ug/L	1.3	1.9	2.0	95% Student's-t UCL	2.5	1.9	Maximum Detect
199-K-184	Arsenic	7440-38-2	3	0	ug/L	1.8	3.3	3.8	95% Student's-t UCL	5.2	3.3	Maximum Detect
199-K-186	Antimony	7440-36-0	2	19	ug/L	0.11	0.18	0.18	95% KM (t) UCL	--	0.18	Maximum Detect
199-K-186	Trichloroethene	79-01-6	3	4	ug/L	0.47	0.64	0.68	95% KM (t) UCL	--	0.64	Maximum Detect
199-K-188	Chloroform	67-66-3	3	3	ug/L	0.22	0.32	0.33	95% KM (t) UCL	--	0.32	Maximum Detect
199-K-19	Antimony	7440-36-0	2	11	ug/L	0.15	0.18	0.19	95% KM (t) UCL	--	0.18	Maximum Detect
199-K-191	Chloroform	67-66-3	4	4	ug/L	0.54	0.72	0.74	95% KM (t) UCL	--	0.72	Maximum Detect
199-K-193	Antimony	7440-36-0	3	18	ug/L	0.14	0.16	0.16	95% KM (t) UCL	--	0.16	Maximum Detect

Table B-9. 100-KR-4 Groundwater Operable Unit Well-Specific Analytes with a Recommended UCL Greater than the Maximum Detected Concentration

Well Name	Analyte	CAS No.	Number of Detects	Number of Non-Detects	Units	Minimum Detected Concentration	Maximum Detected Concentration	Recommended UCL	Recommended UCL Basis	97.5% Chebyshev (Mean, Sd) UCL	Final EPC	Final EPC Basis
199-K-20	Chloroform	67-66-3	2	1	ug/L	0.64	0.73	0.82	95% KM (t) UCL	--	0.73	Maximum Detect
199-K-20	Nickel	7440-02-0	6	11	ug/L	0.32	1.2	1.3	95% KM (Chebyshev) UCL	--	1.2	Maximum Detect
199-K-200	Uranium	7440-61-1	3	0	ug/L	1.8	2.4	2.5	95% Student's-t UCL	3.2	2.4	Maximum Detect
199-K-201	Uranium	7440-61-1	3	0	ug/L	2.5	3.4	3.7	95% Student's-t UCL	4.7	3.4	Maximum Detect
199-K-202	Aluminum	7429-90-5	3	0	ug/L	98	430	527	95% Student's-t UCL	872	430	Maximum Detect
199-K-202	Arsenic	7440-38-2	3	0	ug/L	3.0	3.8	4.0	95% Student's-t UCL	4.9	3.8	Maximum Detect
199-K-202	Barium	7440-39-3	3	0	ug/L	32	35	36	95% Student's-t UCL	39	35	Maximum Detect
199-K-202	Boron	7440-42-8	3	0	ug/L	45	108	128	95% Student's-t UCL	189	108	Maximum Detect
199-K-202	Chromium	7440-47-3	3	0	ug/L	19	160	239	95% Student's-t UCL	388	160	Maximum Detect
199-K-202	Cobalt	7440-48-4	2	1	ug/L	0.26	0.58	0.93	95% KM (Chebyshev) UCL	--	0.58	Maximum Detect
199-K-202	Copper	7440-50-8	3	0	ug/L	1.9	7.5	10	95% Student's-t UCL	16	7.5	Maximum Detect
199-K-202	Fluoride	16984-48-8	3	0	ug/L	150	450	539	95% Student's-t UCL	861	450	Maximum Detect
199-K-202	Iron	7439-89-6	3	0	ug/L	166	1,600	2,187	95% Student's-t UCL	3,587	1,600	Maximum Detect
199-K-202	Manganese	7439-96-5	3	0	ug/L	3.8	15	18	95% Student's-t UCL	30	15	Maximum Detect
199-K-202	Molybdenum	7439-98-7	3	0	ug/L	1.9	4.1	5.0	95% Student's-t UCL	7.2	4.1	Maximum Detect
199-K-202	Nickel	7440-02-0	3	0	ug/L	1.8	10	13	95% Student's-t UCL	21	10	Maximum Detect
199-K-202	Nitrate	14797-55-8	3	0	ug/L	11,500	28,300	37,724	95% Student's-t UCL	55,477	28,300	Maximum Detect
199-K-202	Strontium	7440-24-6	3	0	ug/L	230	277	297	95% Student's-t UCL	344	277	Maximum Detect
199-K-202	Technetium-99	14133-76-7	2	1	pCi/L	42	72	88	95% KM (t) UCL	--	72	Maximum Detect
199-K-202	Uranium	7440-61-1	3	0	ug/L	3.3	4.1	4.3	95% Student's-t UCL	5.1	4.1	Maximum Detect
199-K-202	Vanadium	7440-62-2	3	0	ug/L	8.3	11	12	95% Student's-t UCL	15	11	Maximum Detect
199-K-204	Manganese	7439-96-5	6	1	ug/L	1.2	120	126	97.5% KM (Chebyshev) UCL	--	120	Maximum Detect
199-K-208	Boron	7440-42-8	3	0	ug/L	30	258	327	95% Student's-t UCL	574	258	Maximum Detect
199-K-208	Fluoride	16984-48-8	8	0	ug/L	104	240	241	95% Student's-t UCL	312	240	Maximum Detect
199-K-208	Iron	7439-89-6	3	0	ug/L	36	50	54	95% Student's-t UCL	67	50	Maximum Detect
199-K-208	Vanadium	7440-62-2	2	1	ug/L	7.8	13	17	95% KM (t) UCL	--	13	Maximum Detect
199-K-209	Chromium	7440-47-3	3	0	ug/L	3.3	4.7	5.2	95% Student's-t UCL	6.5	4.7	Maximum Detect
199-K-21	Boron	7440-42-8	2	3	ug/L	4.4	13	21	95% KM (Chebyshev) UCL	--	13	Maximum Detect
199-K-21	Carbon-14	14762-75-5	2	5	pCi/L	9.1	9.2	10.0	95% KM (t) UCL	--	9.2	Maximum Detect
199-K-21	Chromium	7440-47-3	6	1	ug/L	19	73	69	95% KM Adjusted Gamma UCL	--	73	Maximum Detect
199-K-210	Aluminum	7429-90-5	2	1	ug/L	22	46	73	95% KM (Chebyshev) UCL	--	46	Maximum Detect
199-K-210	Arsenic	7440-38-2	2	1	ug/L	3.1	3.8	4.5	95% KM (t) UCL	--	3.8	Maximum Detect
199-K-210	Barium	7440-39-3	3	0	ug/L	32	39	42	95% Student's-t UCL	48	39	Maximum Detect
199-K-210	Carbon-14	14762-75-5	3	0	pCi/L	81	236	282	95% Student's-t UCL	436	236	Maximum Detect
199-K-210	Chromium	7440-47-3	3	0	ug/L	27	31	32	95% Student's-t UCL	35	31	Maximum Detect
199-K-210	Copper	7440-50-8	2	1	ug/L	15	30	43	95% KM (t) UCL	--	30	Maximum Detect
199-K-210	Fluoride	16984-48-8	3	0	ug/L	159	180	193	95% Student's-t UCL	217	180	Maximum Detect
199-K-210	Manganese	7439-96-5	2	1	ug/L	1.3	2.5	3.2	95% KM (t) UCL	--	2.5	Maximum Detect
199-K-210	Molybdenum	7439-98-7	3	0	ug/L	2.4	2.9	3.2	95% Student's-t UCL	3.8	2.9	Maximum Detect
199-K-210	Nitrate	14797-55-8	3	0	ug/L	20,800	22,600	23,217	95% Student's-t UCL	24,945	22,600	Maximum Detect
199-K-210	Strontium	7440-24-6	3	0	ug/L	240	304	330	95% Student's-t UCL	392	304	Maximum Detect
199-K-210	Uranium	7440-61-1	3	0	ug/L	2.1	2.6	2.8	95% Student's-t UCL	3.4	2.6	Maximum Detect
199-K-210	Zinc	7440-66-6	2	1	ug/L	69	75	122	95% KM (t) UCL	--	75	Maximum Detect
199-K-22	Chloroform	67-66-3	2	1	ug/L	0.76	0.79	0.82	95% KM (t) UCL	--	0.79	Maximum Detect
199-K-22	Cobalt	7440-48-4	2	2	ug/L	0.10	0.12	0.13	95% KM (t) UCL	--	0.12	Maximum Detect
199-K-22	Selenium	7782-49-2	3	0	ug/L	1.9	2.6	2.8	95% Student's-t UCL	3.6	2.6	Maximum Detect
199-K-22	Uranium	7440-61-1	3	0	ug/L	2.0	2.2	2.4	95% Student's-t UCL	2.6	2.2	Maximum Detect
199-K-223	Carbon-14	14762-75-5	3	0	pCi/L	108	158	175	95% Student's-t UCL	223	158	Maximum Detect
199-K-223	Chloroform	67-66-3	3	0	ug/L	0.33	0.41	0.43	95% Student's-t UCL	0.51	0.41	Maximum Detect
199-K-223	Nitrite	14797-65-0	2	4	ug/L	217	821	897	95% KM (Chebyshev) UCL	--	821	Maximum Detect
199-K-223	Trichloroethene	79-01-6	3	0	ug/L	4.3	4.9	5.2	95% Student's-t UCL	5.9	4.9	Maximum Detect
199-K-223	Tritium	10028-17-8	3	0	pCi/L	1,170	1,660	1,870	95% Student's-t UCL	2,352	1,660	Maximum Detect
199-K-224	Barium	7440-39-3	4	0	ug/L	40	43	44	95% Student's-t UCL	47	43	Maximum Detect
199-K-224	Carbon-14	14762-75-5	3	0	pCi/L	281	459	511	95% Student's-t UCL	696	459	Maximum Detect
199-K-224	Chloroform	67-66-3	2	1	ug/L	0.27	0.38	0.43	95% KM (t) UCL	--	0.38	Maximum Detect
199-K-224	Fluoride	16984-48-8	6	0	ug/L	130	210	214	95% Student's-t UCL	280	210	Maximum Detect
199-K-224	Iron	7439-89-6	2	3	ug/L	195	360	307	95% KM (t) UCL	--	360	Maximum Detect
199-K-224	Manganese	7439-96-5	2	2	ug/L	3.9	5.7	6.0	95% KM (t) UCL	--	5.7	Maximum Detect
199-K-224	Nitrite	14797-65-0	2	4	ug/L	220	821	898	95% KM (Chebyshev) UCL	--	821	Maximum Detect

Table B-9. 100-KR-4 Groundwater Operable Unit Well-Specific Analytes with a Recommended UCL Greater than the Maximum Detected Concentration

Well Name	Analyte	CAS No.	Number of Detects	Number of Non-Detects	Units	Minimum Detected Concentration	Maximum Detected Concentration	Recommended UCL	Recommended UCL Basis	97.5% Chebyshev (Mean, Sd) UCL	Final EPC	Final EPC Basis
199-K-224	Trichloroethene	79-01-6	3	0	ug/L	3.1	5.5	6.3	95% Student's-t UCL	8.6	5.5	Maximum Detect
199-K-224	Tritium	10028-17-8	3	0	pCi/L	912	1,110	1,178	95% Student's-t UCL	1,368	1,110	Maximum Detect
199-K-23	Boron	7440-42-8	3	0	ug/L	15	79	98	95% Student's-t UCL	165	79	Maximum Detect
199-K-23	Tin	7440-31-5	2	4	ug/L	0.062	0.13	0.17	95% KM (Chebyshev) UCL	--	0.13	Maximum Detect
199-K-30	Fluoride	16984-48-8	4	0	ug/L	79	211	215	95% Student's-t UCL	325	211	Maximum Detect
199-K-30	Tritium	10028-17-8	4	0	pCi/L	16,000	280,000	281,444	95% Student's-t UCL	492,192	280,000	Maximum Detect
199-K-32A	romodichloromethai	75-27-4	2	1	ug/L	0.13	0.16	0.19	95% KM (t) UCL	--	0.16	Maximum Detect
199-K-32A	Chloroform	67-66-3	3	0	ug/L	2.1	2.3	2.4	95% Student's-t UCL	2.6	2.3	Maximum Detect
199-K-32B	Cobalt	7440-48-4	2	3	ug/L	0.15	0.32	0.40	95% KM (Chebyshev) UCL	--	0.32	Maximum Detect
199-K-32B	Copper	7440-50-8	5	0	ug/L	0.41	1.1	1.1	95% Student's-t UCL	1.7	1.1	Maximum Detect
199-K-32B	Uranium	7440-61-1	3	0	ug/L	3.0	3.2	3.3	95% Student's-t UCL	3.5	3.2	Maximum Detect
199-K-35, K-195, K-205	Arsenic	7440-38-2	3	0	ug/L	3.7	4.0	4.1	95% Student's-t UCL	4.5	4.0	Maximum Detect
199-K-35, K-195, K-205	Boron	7440-42-8	2	2	ug/L	11	15	17	95% KM (t) UCL	--	15	Maximum Detect
199-K-35, K-195, K-205	Molybdenum	7439-98-7	3	0	ug/L	1.8	3.0	3.3	95% Student's-t UCL	4.6	3.0	Maximum Detect
199-K-35, K-195, K-205	Technetium-99	14133-76-7	4	0	pCi/L	7.2	76	77	95% Student's-t UCL	133	76	Maximum Detect
199-K-35, K-195, K-205	Uranium	7440-61-1	3	0	ug/L	1.4	1.7	1.8	95% Student's-t UCL	2.1	1.7	Maximum Detect
199-K-36	Aluminum	7429-90-5	3	0	ug/L	13	43	52	95% Student's-t UCL	82	43	Maximum Detect
199-K-36	Arsenic	7440-38-2	4	0	ug/L	1.9	5.6	6.3	95% Student's-t UCL	9.5	5.6	Maximum Detect
199-K-36	Bromomethane	74-83-9	2	1	ug/L	0.12	1.0	1.9	95% KM (Chebyshev) UCL	--	1.0	Maximum Detect
199-K-36	Chloroform	67-66-3	2	1	ug/L	0.67	0.70	0.73	95% KM (t) UCL	--	0.70	Maximum Detect
199-K-36	Cobalt	7440-48-4	3	1	ug/L	0.62	1.4	1.5	95% KM (t) UCL	--	1.4	Maximum Detect
199-K-36	Selenium	7782-49-2	3	0	ug/L	0.89	1.6	1.8	95% Student's-t UCL	2.6	1.6	Maximum Detect
199-K-36	Trichloroethene	79-01-6	2	1	ug/L	0.54	0.60	0.66	95% KM (t) UCL	--	0.60	Maximum Detect
199-K-36	Uranium	7440-61-1	3	0	ug/L	4.8	5.4	5.5	95% Student's-t UCL	6.1	5.4	Maximum Detect
199-K-37	Aluminum	7429-90-5	2	3	ug/L	16	233	406	97.5% KM (Chebyshev) UCL	--	233	Maximum Detect
199-K-37	Copper	7440-50-8	2	3	ug/L	0.30	2.2	2.8	95% KM (Chebyshev) UCL	--	2.2	Maximum Detect
199-K-37	Lithium	7439-93-2	2	2	ug/L	5.9	6.0	6.6	95% KM (t) UCL	--	6.0	Maximum Detect
199-K-37	Uranium-233/234	U-233/234	3	0	pCi/L	0.85	1.1	1.2	95% Student's-t UCL	1.4	1.1	Maximum Detect
199-K-37	Uranium-238	U-238	3	0	pCi/L	0.69	0.87	0.96	95% Student's-t UCL	1.1	0.87	Maximum Detect
699-72-73	Trichloroethene	79-01-6	2	1	ug/L	0.89	0.98	1.1	95% KM (t) UCL	--	0.98	Maximum Detect
699-73-61	Molybdenum	7439-98-7	5	0	ug/L	1.8	4.5	4.7	95% Student's-t UCL	6.9	4.5	Maximum Detect
699-73-61	Nitrite	14797-65-0	2	4	ug/L	30	147	159	95% KM (Chebyshev) UCL	--	147	Maximum Detect
699-73-61	Selenium	7782-49-2	5	1	ug/L	0.66	1.4	1.4	95% KM (t) UCL	--	1.4	Maximum Detect
699-73-61	Technetium-99	14133-76-7	2	1	pCi/L	7.7	13	15	95% KM (t) UCL	--	13	Maximum Detect
ALL WELLS	2-Butanol	78-92-2	4	0	ug/L	21	30	30	95% Student's-t UCL	39	30	Maximum Detect
ALL WELLS	Hexane	110-54-3	3	0	ug/L	0.46	0.83	0.94	95% Student's-t UCL	1.3	0.83	Maximum Detect