ECF-HANFORD-19-0085
Revision 0

Hanford Site Cumulative Impact Evaluation: Source Inventory Calculation of Chemicals in Liquid Discharges to the Hanford 200 Area

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

P.O. Box 1600
Richland, Washington 99352

Approved for Public Release;
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ENVIRONMENTAL CALCULATION COVER PAGE

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ENVIRONMENTAL CALCULATION COVER PAGE (Continued)

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ENVIRONMENTAL CALCULATION COVER PAGE (Continued)

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Terms

CIE	cumulative impact evaluation
COC	contaminant of concern
COPC	contaminant of potential concern
DOE	U.S. Department of Energy
DST	double-shell tank
ECF	environmental calculation file
HDW	Hanford defined waste
HISI	Hanford Information System Inventory
HSW	high salt waste
LSW	low salt waste
SIM	Soil Inventory Model

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1 Purpose

The purpose of this environmental calculation file (ECF) is to provide the inventory estimates of selected chemical constituents that were discharged as liquids to the waste sites in the 200 Areas during active Hanford Operations period (1944 to 1989). The estimate of discharged chemical inventories and liquid volumes will be used to undertake contaminant transport modeling through the vadose zone to assess long-term impacts to groundwater in support of U.S. Department of Energy's (DOE) cumulative impact evaluation (CIE). The primary purpose of the CIE is to support the decision-making process of the DOE, Washington State Department of Ecology and the U.S. Environmental Protection Agency (EPA) (DOE/RL-2018-69, *Cumulative Impact Evaluation Technical Approach Document*, Draft A).

The results are presented in terms of the "best-estimate" of the disposed chemical inventory along with the standard deviation in these estimates due to inherent variability and uncertainty in past discharges. This report presents the results of the calculation for 29 chemicals that were evaluated using the Hanford Soil Inventory Model (SIM) (CP-59798, *Model Package Report: Hanford Soil Inventory Model SIM v.2: Build 1*) along with estimate of discharged cyanide inventory. The estimate of disposed inventory for cyanide is described and calculated separately as it was not part of the initial set of 29 chemicals.

SIM provides the basic radionuclide and chemical soil inventories from historical liquid discharges to about 400 sites at the Hanford Site. The details of the calculations for the 46 radionuclides are provided in the ECF-Hanford-17-0079, *Hanford Soil Inventory Model [SIM-v2] Calculated Inventory of Direct Liquid Discharges to Soil in the Hanford Site's 200 Areas*.[1] This ECF documents the calculations for the 29 chemicals along with cyanide. Appendix A of this report provides cyanide inventories.

The calculations follow the same discharge volume updates discussed in ECF-Hanford-17-0079 due to usage of chemicals during waste processing as part of the flowsheet. This report will briefly present the previously reported calculation and focus on presenting the resulted changes in the chemical inventories. All estimated chemicals are listed in Appendix B, while a selected subset of chemical contaminants of potential concern (COPCs) that are expected to be risk-significant or of concern will be discussed in greater detail in the results section of this report. Furthermore, discharged inventories are only reported for the soluble portions of the liquid discharges to waste sites/waste management areas located in the 200 Area of the Hanford Site (Central Plateau). Appendix C provides the standard deviation values for uncertainty analysis of the inventory.

Since the first release of SIM in 2005 (RPP-26744, *Hanford Soil Inventory Model*), designated in this report as SIM-v1, several updates have occurred, and implementation errors were identified. The SIM-v1 inventory results were included in DOE/EIS-0391, *Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site*. The SIM-v1 input was the basis for SIM-v2 input after applying the updates/corrections discussed in ECF-Hanford-17-0079 and by using a new calculation methodology for increased computational efficiency (CP-59798). The chemical inventory estimated by SIM-v2 is compared with SIM-v1 to illustrate the effect of the updates.

[1] The estimates of disposed radionuclides were further integrated with solid waste inventories and were collectively reported in (CP-61786, *Inventory Data Package for the Hanford Site Composite Analysis*) for the composite analysis per DOE O 435.1, *Radioactive Waste Management*, requirements.

2 Background

The plutonium and uranium production at the Hanford Site from 1944 until 1989 relied on chemical dissolution and extraction processes from reactor fuel or target elements. Figure 1 shows the timeline of Hanford Site production where main processes, evaporators, and plants are listed to the left and the corresponding main waste streams are listed to the right of the figure. The definitions of the waste streams and waste type terms are defined in RPP-19822, *Hanford Defined Waste Model – Revision 5.0*; hereinafter called the HDW model. Chemical wastes were generated from these processes, and considerable amounts were discharged to soil after complex treatment, cascading through underground storage tanks and discharges of dilute cooling, evaporator and lab wastes. The liquid discharged waste streams were defined as 66 concentrated streams and sludges/saltcake to evaluate the inventory in the tanks using the HDW model implementation (RPP-19822). The 66 defined waste streams were originally derived from the simulation of the production processes using nuclear reactor production information from ORIGEN2 (RPP-13489, *Activity of Fuel Batches Processed Through Hanford Separations Plants, 1944 Through 1989*). SIM-v1 and SIM-v2 used the same approach and propagated the characterization to 213 waste streams (currently in SIM-v2).

The SIM-v2 is built on inputs developed for SIM-v1 and retains most of the basic information. The SIM-v1 model is described in RPP-26744. Approximately 6,300 volume discharge events were modeled for the SIM sites (including unplanned releases). These were based on source references that included numerous historical waste management and surveillance documents, process engineering memos, plant flowsheets, and surveillance data. Most of the waste stream composition information was based on characterizations defined in HDW (RPP-19822) and LA-UR-96-3860, *Hanford Tank Chemical and Radionuclide Inventories: HDW Model Rev. 4*, as well as several engineering and technical assumptions.

Since 2005, many changes to SIM input have been identified through update of the input Microsoft® Excel® spreadsheet derived from SIM-v1. The inputs are then read in by the GoldSim® file. The GoldSim implementation of SIM-v2 calculates inventory from the product of event volumes and stream densities and compositions as a function of time resulting in associated GoldSim input and output files. The post-processing of the SIM-v2 results are undertaken to report 29 chemical analytes presented in this report providing each site total inventory mean and standard deviation in Appendices B and C of this ECF, respectively.

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® GoldSim is a registered trademark of GoldSim Technology Group, LLC, Issaquah, Washington.

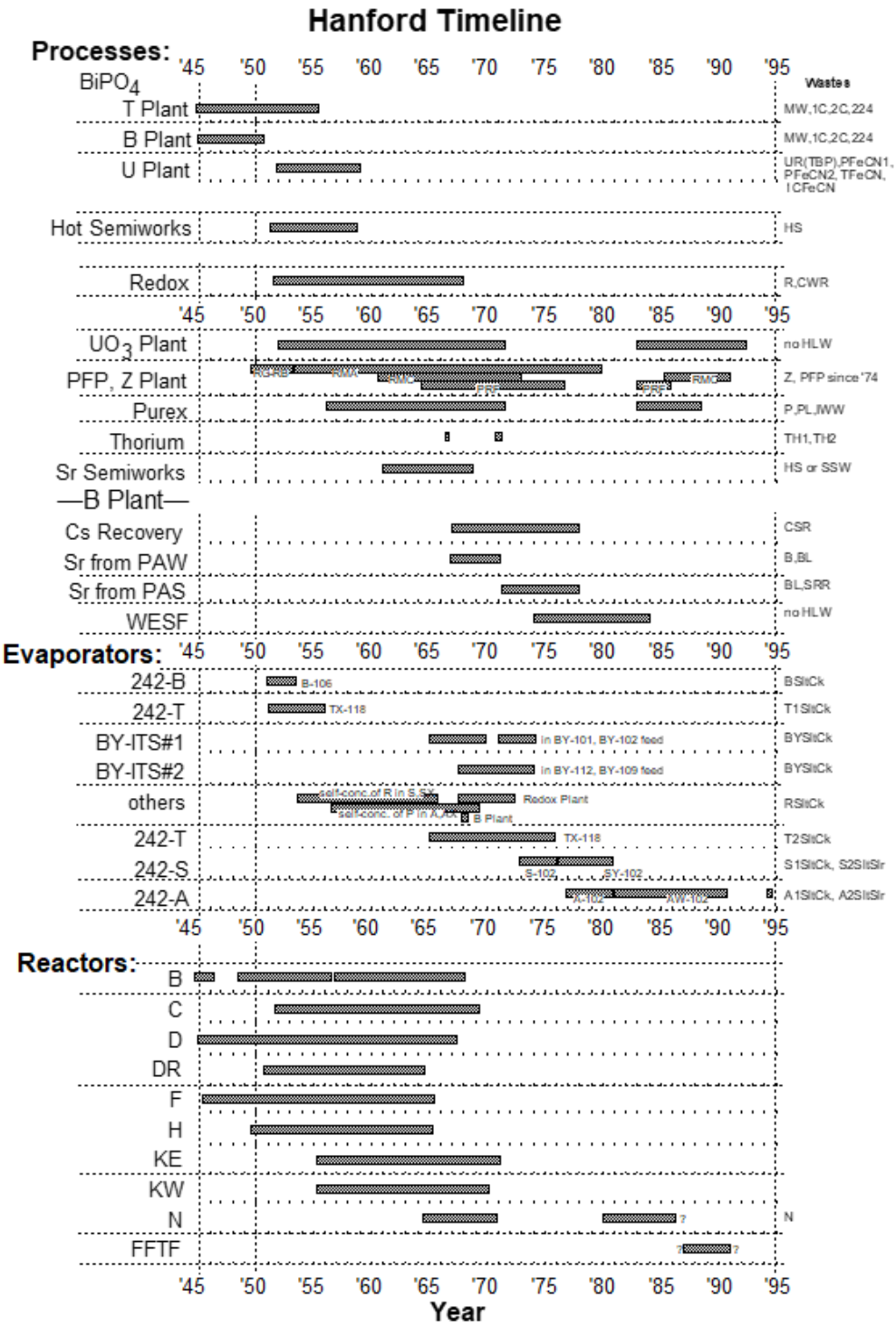

Figure 1. Timeline for Hanford Site's Campaigns

3 Methodology

The chemical inventory of liquid discharges to soil sites of the Hanford Site 200 Areas were evaluated for 30 analytes. SIM-v2 was used to estimate the inventory of 29 analytes using the analytic solution approach. The cyanide inventory is estimated separately in Appendix A of this ECF.

3.1 Mathematical Description of the SIM-v2

The Hanford Site soil inventory study currently has identified about 400 waste sites consisting of liquid disposal, unplanned releases, and tank farm leaks. A total of 213 waste streams account for the disposal of the contaminates to all sites. For all analytes, the liquid inventory (kg) for a given site and time is calculated as:

$$INV_{site,time}=[C_{na,\,nws}*(D_{nws}*V_{,nws})]_{\,site,time} \qquad \textbf{(Eq. 1)}$$

where:

na	=	number of analytes
nws	=	number of waste streams
C[na,nws]	=	mass concentration matrix [chemical µg/g, radioactive µCi/g]
D[nws]	=	liquid density vector [g/mL]
$V^{site,time}$ [nws]	=	volume for given site and time vector [ML].

Input provides the distribution statistics for each waste stream liquid density and concentration of analytes in waste streams, and the discharged volume for a given site and time. The calculation for liquid inventory, Equation 1, for a specified site and time is implemented as follows:

- Calculate the term-wise multiplication of the waste stream vector liquid density times liquid volume. The result is a mass array over waste streams.
- Calculate the matrix-vector product of mass concentration matrix times the mass array.

The result is an inventory array over all analytes. The calculation involves summation of products of random variables (concentration, density, and volume) and, therefore, the inventory statistics can be determined analytically as described in the following section.

3.2 SIM-v2 Statistics

The analytic calculation of the inventory mean and variance is a result of the definition of independent probability distribution functions of input variables: density, concentration and volume. Generally, two random variables x_1 and x_2 are independent if their joint probability distribution function satisfies Equation 2.

$$f(x_1, x_2) = f(x_1)f(x_2) \qquad \textbf{(Eq. 2)}$$

As the densities, concentrations, and volumes are all sampled independently, they are all pair-wise independent random variables. For two independent random variables, X_1 and X_2, let $Y=X_1 + X_2$ be the sum and $Z=X_1X_2$ the product of the two random variables. Let the notation for the mean and standard deviation for the two random variables be, $\mu_{X_i} = \mu_i$, $\sigma_{X_i} = \sigma_i$, $i = 1, 2$. The mean value of the sum is equal to sum of the means and the mean value of the product is the product of the means, respectively,

$$\mu_Y = \mu_1 + \mu_2 \quad \textbf{(Eq. 3)}$$

$$\mu_Z = \mu_1 \mu_2 \quad \textbf{(Eq. 4)}$$

The variance of the sum is the sum of variances:

$$\sigma_Y^2 = \sigma_1^2 + \sigma_2^2 \quad \textbf{(Eq. 5)}$$

while the variance of the product is

$$\sigma_Z^2 = \sigma_1^2 \sigma_2^2 + \mu_1^2 \sigma_2^2 + \mu_2^2 \sigma_1^2 \quad \textbf{(Eq. 6)}$$

Application of above equations provide mean and variance of the inventory disposed at any location. In particular, the mean and variance inputs for liquid volume (V), density (D) and concentration (C) of a given waste stream are multiplied for a given waste site at each discharge time to calculate the mean and variance of the inventory. The inventory statistics calculations are implemented in GoldSim software

The statistics calculation for D*V is performed first as it is only dependent on the waste stream type. The matrix-vector product of C*(D*V) is performed next. The inventory statistics calculations are applied in an outer loop over sites and an inner loop over times. The calculation time for the SIM-v2 model with 400 sites required approximately 2 hours on a 2.00GHz processor eliminating the need of lengthy iterative approaches sampling the input statistics. The mean and variance of the inventory is calculated as:

$$\mu_I = \mu_C(\mu_D \mu_V) \quad \textbf{(Eq. 7)}$$

$$\sigma_I^2 = \sigma_C^2 \sigma_D^2 \sigma_V^2 + \mu_C^2 \sigma_D^2 \sigma_V^2 + \mu_D^2 \sigma_C^2 \sigma_V^2 + \mu_V^2 \sigma_C^2 \sigma_D^2 + \mu_C^2 \mu_D^2 \sigma_V^2 + \mu_V^2 \mu_C^2 \sigma_D^2 + \mu_V^2 \mu_D^2 \sigma_C^2 \quad \textbf{(Eq. 8)}$$

3.3 SIM Updates

The updates to SIM are described in ECF-Hanford-17-0079. These updates that affect chemical inventories are as follows:

- Z Area updates: as documented in the Appendix C of ECF-Hanford-17-0079, the Z Area updates included redistribution of flows and waste streams among soil sites. The update included adding the ditches: 216-Z-1D, 216-Z-11, and 216-Z-19 to redistribute plutonium inventory. According to the characterization studies of the ditches and the 216-U-10 pond 99% of the discharged plutonium was retained in the ditches (WHC-EP-0707, *216-U-10 Pond and 216-Z-19 Ditch Characterization Studies*). This observation supports the decision to assign cooling water and chemical sewer waste streams from the Z Plant complex to the ditches. These comprised 20% of the volumetric discharge while 80% of the flows were overflowing from the ditches to the 216-U-10 Pond. The update affects chemical composition-influencing chemicals such as chromium and nitrate. Another update was due to the redistribution of low-salt and high-salt waste streams to other Z Area sites considering reductions after settling and remediation.

- SIM-v2 added magnesium and hydroxide to the inventory. Was used as part of correcting the mercury inventory since significant amounts of magnesium were accounted as mercury in SIM-v1. The hydroxide was calculated from charge balance to help set the initial pH for more detailed equilibrium and speciation modeling.

- SIM-v2 did not perform calculations for cyanide (or ferrocyanide) inventory using the computational approach applied to other chemicals. However, in Appendix A of this ECF, cyanide inventory was estimated separately. Speciation of the cyanide waste streams was performed followed by calculation of mean discharges of the waste streams: PFeCN1, PFeCN2, TFeCN, and 1CFeCN.

- Adjustment of the N Reactor decontamination waste stream: this correction was made as part of ECF-Hanford-17-0079 to correct cesium-137 (Cs-137) inventory at the 216-A-9 site. SIM-v1 used HDW model definition of chemicals and added an unrealistically high level concentration of Cs-137. HDW did not have radionuclide characteristics for the N waste stream. The N Reactor decontamination waste is mainly neutralized phosphoric acid. Concentrates of N Reactor decontamination waste are concentrated phosphate waste (CP) which is stored in double-shell tanks (DSTs) 241-AN-106 and 241-AP-102. SIM-v1 probably used the corresponding high-level waste characteristics in these tanks to estimate iodine-129 (I-129), cesium-134 (Cs-134), and Cs-137 of the waste stream. In SIM-v2, the N Reactor waste stream characteristics were set relevant to the neutralized phosphoric acid using the laundry wastewater (BT1) characteristic that is more relevant to low level waste discharge to soil (e.g., to site 216-A-9).
- Tank leaks were updated in Appendix B in ECF-Hanford-17-0079, with uncertainty estimates. The tank leak inventories were updated with discharged volume uncertainties. The uncertainty range was extended to include the reported leak volume updates and to match the maximum reported Cs-137 inventory with 95 percentile confidence.

4 Assumptions and Inputs

The inputs to SIM are statistical distributions of independently sampled volume, density and mass concentration of the 75 evaluated analytes including the calculated 29 chemicals. Inputs and assumptions for cyanide inventory are part of the cyanide speciation methodology described in Appendix A of this ECF.

Input distributions for chemicals were used as designed in the earlier work of SIM-v1 (RPP-26744) using process knowledge, process records, and expert judgement of bounding values. Input distributions were selected from the following distribution types: normal, triangular, lognormal, exponential, generalized Beta, and null (zero). Each input record for either density, volume or concentration assigns a distribution type and the parameters required by that distribution. Detailed description of the distribution functions and parameters are listed in CP-59798. The input distribution parameters provide enough information for the calculation of the distribution mean and variance, as described in (CP-59798). The inventory calculations provide the inventory statistics for the arithmetic mean and variance or standard deviation. It is assumed that evaluation of inventory approximates lognormal distribution according to ECF-Hanford-17-0079.

242-A Evaporator process condensates are assumed to be dilute waste streams with very limited contamination, however, additional evaluation is warranted. WHC-EP-0342, *242-A Evaporator Process Condensate Stream-Specific Report*, Addendum 15, provides characterization data during 1985 through 1989 from sampling process condensate effluents that entered the soil column at the 216-A-37-1 Crib. The ammonium ion was detected in 31 of the 34 waste stream samples at an average concentration of 410 parts per million, which likely results from processing ammonia scrubber feed and cladding removal waste. Besides that some organic compounds such as acetone, butyl alcohol, and methyl isobutyl ketone (hexone) was detected large number of samples. The adjustment to waste stream composition of the 242-A Evaporator process condensate will be made in the future update after further evaluation of fate of ammonium ion following discharge to shallow soils.

5 Software Applications

This chapter explains the utility and approved software used to estimate the chemical inventories released with liquid discharges to soil sites in the Hanford Site's 200 Areas. Software was used consistent with

requirements of a CHPRC controlled software management procedure that implements the requirements of DOE O 414.1D, *Quality Assurance*.

Microsoft Excel and MATLAB® were used as utility tools for calculation and organizing the SIM-v2 output. GoldSim and PHREEQC 3.1.4® were the controlled and approved software for SIM-v2 and speciation modeling, respectively.

5.1 MATLAB

Functions were designed to read, organize and write the SIM-v2 output as described in (Appendix D in ECF-HANFORD-17-0079). The functions were written in M, a programming language for MATLAB and its Integrated Development Environment. MATLAB is graded Level D software for use at the Hanford Site.

5.1.1 Description

The following required information is provided for the software package used in the calculation:

- Software Title: MATLAB
- Software Version: v2018b
- Hanford Information System Inventory (HISI) Identification Number: 4060
- Workstation type and property number (from which software is run): INTERA-00799

5.1.2 Software Installation and Checkout

As Level D software, formal installation and checkout is not required.

5.1.3 Statement of Valid Software Application

MATLAB script and functions were previously checked as part of the ECF-HANFORD-17-0079 and documented in its Appendix D.

5.2 GoldSim

GoldSim was the selected primary software to implement the SIM-v2 model. GoldSim is approved for use at the Hanford Site and is graded Level C software. GoldSim use at the Hanford Site for this class of problems is managed under the following software quality assurance documents:

- CHPRC-00175, *GoldSim Pro Software Management Plan*
- CHPRC-00180, *GoldSim Pro Functional Requirements Document*
- CHPRC-00224, *GoldSim Pro Software Test Plan*
- CHPRC-00262, *GoldSim Pro Acceptance Test Report: Version 11.1.5*
- CHPRC-00256, *GoldSim Pro Requirements Traceability Matrix: Version 11.1.5*

5.2.1 Description

The following required information is provided for the software package used in the calculation:

- Software Title: GoldSim Pro
- Software Version: 11.1.5

® The MATLAB platform is a registered trademark of The MathWorks, Inc., Natick, Massachusetts.

® PHREEQC is available from the U.S. Geographical Survey (https://www.usgs.gov/software/phreeqc).

- HISI Identification Number: 2461
- Workstation type and property number (from which software is run): INTERA-00799

5.2.2 Software Installation and Checkout

A copy of the Software Installation and Checkout form for the workstation used is provided in Appendix E.

5.2.3 Statement of Valid Software Application

The use of GoldSim for implementation of SIM-v2 is an appropriate application of this software, consistent with the functional requirements and within its limitations as defined in CHPRC-00180.

5.3 PHREEQC

PHREEQC was the selected primary software to the speciation modeling needed to simulate the Cs-137 scavenging process flowsheet and to evaluate the cyanide inventory. PHREEQC is approved for use at the Hanford Site and is graded Level D software according to the software management plan (CHPRC-01872).

5.3.1 Description

The following required information is provided for the software package used in the calculation:

- Software Title: PHREEQC
- Software Version: 3.1.4
- As Level D software, a user list not required to be maintained in HISI
- Workstation type and property number (from which software is run): INTERA-00799

5.3.2 Software Installation and Checkout

As Level D software, formal installation and checkout is not required

5.3.3 Statement of Valid Software Application

The use of PHREEQC for speciation of cyanide minerals is an appropriate application of this software, consistent with the functional requirements and within its limitations as defined in CHPRC-01872.

6 Calculation

Inventory calculations are performed initially for 29 chemicals that are part of the SIM analyte vector. Inventory of cyanide is estimated separately with calculation details presented in Appendix A of this ECF. Appendix B provides the estimated mean values of other chemical inventories. Appendix C provides the standard deviation values for uncertainty analysis. Calculations of uncertainty are demonstrated by examples of tank leak inventories, and are presented in Appendix D.

7 Results/Conclusions

The inventory results are evaluated by comparing the estimates from SIM-v2 with the estimates from SIM-v1 for all chemical constituents except cyanide. First, total mean and standard deviation of inventories are compared for each chemical. Second, the inventory is compared highlighting updated sites in SIM-v2. The results are presented for COPCs and other suggested risk drivers. Sodium results were also compared presenting the update effects on high quantity (mass) chemicals. Cyanide inventory results and reported/calculated values were presented for the assessment of cyanide estimated that are discussed in more detail in Appendix A of this ECF. The highest inventory sites of the current CIE COPCs are

mapped on plume maps as qualitative check that the evaluated inventories are in the vicinity of the observed plume.

7.1 Total Inventory

As shown in Figure 2, the mean total inventories of all chemicals were consistent between both versions of SIM with the exception of mercury due to an error and has been updated in SIM-v2. The error incorrectly resulted in very large amounts of mercury in various Z Area waste sites. The newly calculated mercury estimate in SIM-v2 is about 1,500 kg across all waste sites.

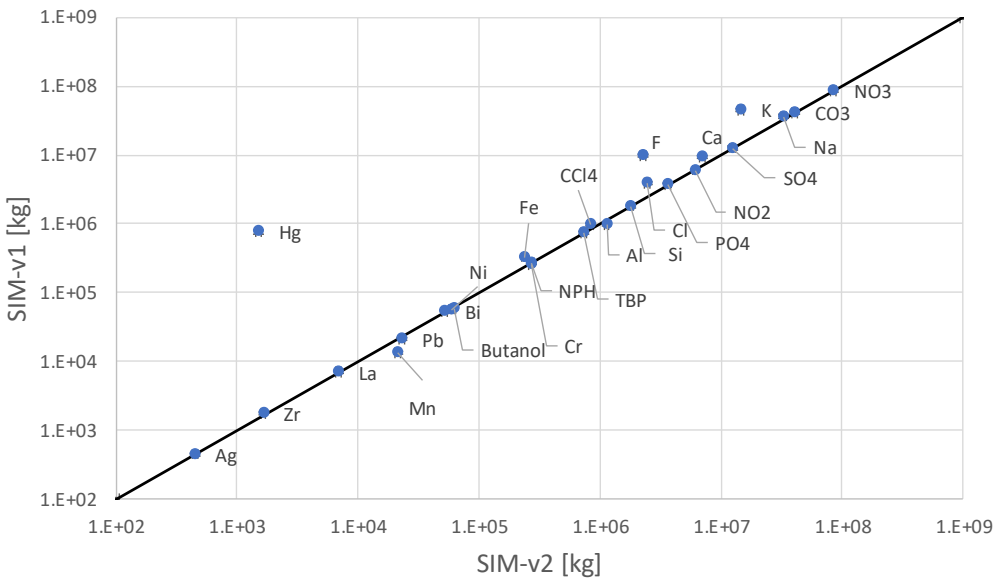

Figure 2. SIM-v1 vs. SIM-v2 Total Mean Chemical Inventory Comparison

The estimate of standard deviation in chemical inventories are similar in both SIM versions. Improvements in SIM-v2 uncertainty distributions is demonstrated by the reduction of total chemicals standard deviations associated with mercury, potassium, fluorine, and chlorine inventories (Figure 3).

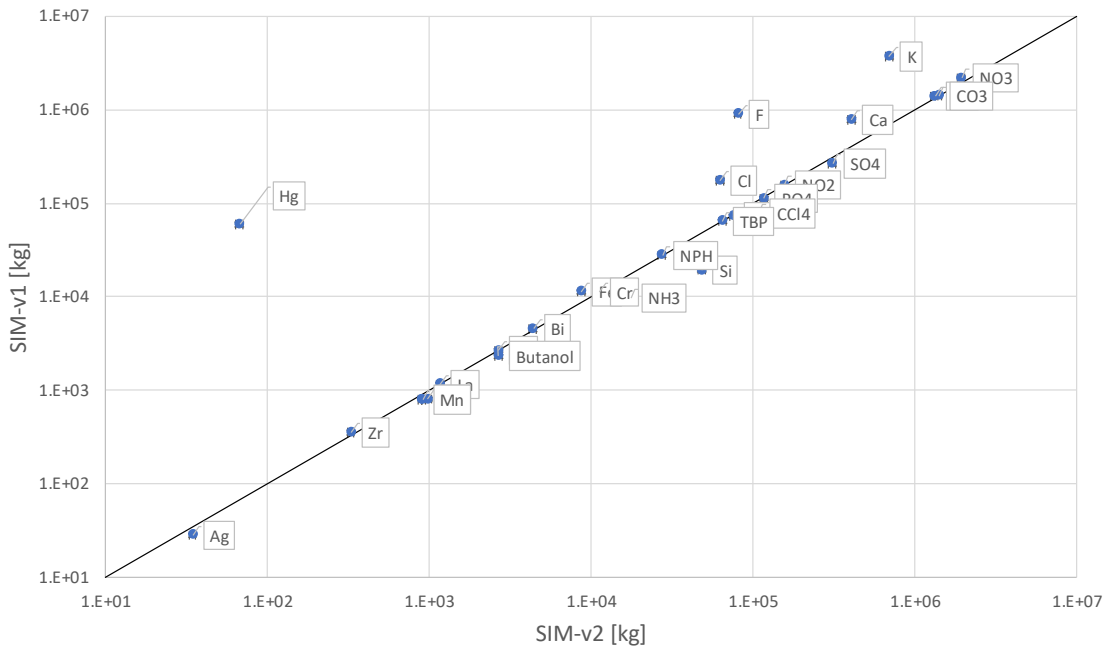

Figure 3. Standard Deviation of Total Chemical Inventory Comparing SIM-v1 vs SIM-v2

7.2 Updated Sites Comparisons

For validation, the main chemical inventory results from both SIM versions are compared. The comparisons are presented for chemical species of potential risk or affect the mass balance (due to use in large quantities). The differences between SIM-v1 and SIM-v2 are due to the updates that were detailed in ECF-Hanford-17-0079. The same updates are described here briefly in Section 7.2.1.

7.2.1 COPC/Risk Drivers

The CIE technical approach document (DOE/RL-2018-69) listed chromium, nitrate, and cyanide as COPCs. Therefore, major inventory sites will be mapped in this section for the three COPCs. The CIE is planned to evaluate the CCl_4 in groundwater only since studies indicated that the vapor extraction cleanup efforts removed the residual CCl_4 from the vadose zone (DOE/RL-2014-48, *Response Action Report for the 200-PW-1 Operable Unit Soil Vapor Extraction Remediation*). SIM-v2 did not fully apply remedial actions of CCl_4 and historical records of discharge of CCl_4 mean estimates are provided in Appendix B of this ECF with the standard deviation values in Appendix C. In this section, the COPCs list is expanded to include chromium, cyanide, nitrate, nitrite, mercury, and lead just for comparison. Significant correction in the compared inventory was made for mercury inventory. All except cyanide were estimated by SIM-v2 using the calculation approach discussed in Section 3.2. Cyanide was estimated separately using speciation modeling of the scavenging processes. Cyanide results are summarized in the following section with details presented in Appendix A of this ECF.

Chromium inventory results from SIM-v2 are compared with the estimates made in SIM-v1 (Figure 4). In general, most of the site inventories coincide along a projected equivalence line except few sites that were changed/corrected in SIM-v2:

- Two orders of magnitude correction were applied to 216-A-9 inventory of chromium due to the adjustment of the N Reactor decontamination waste stream as a low-level waste discharged to soil and not as high-level waste discharged to DSTs. SIM-v1 used HDW characterization of chemicals

and added an unrealistically high-level concentration of Cs-137 although HDW did not have radionuclide characteristics for the N waste stream. The N Reactor decontamination waste is mainly neutralized phosphoric acid. Concentrates of N Reactor are concentrated phosphate waste (CP) which is stored in DSTs 241-AN-106 and 241-AP-102. SIM-v1 probably used the corresponding high-level waste characteristics in these tanks to estimate I-129, Cs-134, and Cs-137 of the waste stream. In SIM-v2, the N Reactor waste stream characteristics were updated to the neutralized phosphoric acid using the Laundry wastewater (BT1) characteristic that is more relevant to low-level waste discharge to soil site 216-A-9.

- The applied update to 216-A-9 reduced nitrate and nitrite inventory (Figure 5 and Figure 6) but did not affect inventory of other chemicals like mercury and lead (Figure 7 and Figure 8).
- Inventory was reduced in 216-U-10 pond due to redistribution of flows and inventory to upstream Z ditches that were not considered in SIM-v1. Z Area updates as documented in Appendix C of ECF-Hanford-17-0079 included redistribution of flows and waste streams adding the ditches: 216-Z-1D, 216-Z-11, and 216-Z-19 to redistribute plutonium inventory. The update affects chemical composition influencing chemicals such as chromium (Figure 4) and lead (Figure 8). However, the effect to 216-U-10 pond did not change the high nitrate and nitrite inventories in Figure 5 and Figure 6. Another update was due to the redistribution of low salt waste (LSW) and high salt waste (HSW) streams to Z Area sites. The redistribution of HSW increased chromium inventory in 216-Z-1A, 216-Z-12, and 216-Z-18 as shown in Figure 4. Nitrate and nitrite did not change from SIM-v1 estimated at these sites as shown in Figure 5 and Figure 6
- Another correction that was undertaken in the Z Area is correcting mercury inventory at sites: 216-Z-1A, 216-Z-1&2, 216-Z-9, 216-Z-12, and 216-Z-18 as shown in Figure 7. SIM-v2 added magnesium and hydroxide to the inventory. Magnesium at the Z Area sites was accounted as mercury in SIM-v1. The mercury was reduced at these sites, and the difference was added to magnesium inventory in SIM-v2. The hydroxide was calculated from charge balance and would help set the initial pH for more detailed equilibrium and speciation modeling.
- The tank leak sites prefixed by the 241 number were updated according to tank leak studies. Tank leaks were updated in Appendix B of ECF-Hanford-17-0079 with uncertainty estimates. The tank leak inventories were updated with discharged volume uncertainties. The uncertainty range was extended to cover the reported Cs-137 inventory in the tank leak update reports with 95% confidence. The leak volume updates affected changes to chemical and radionuclide inventories.

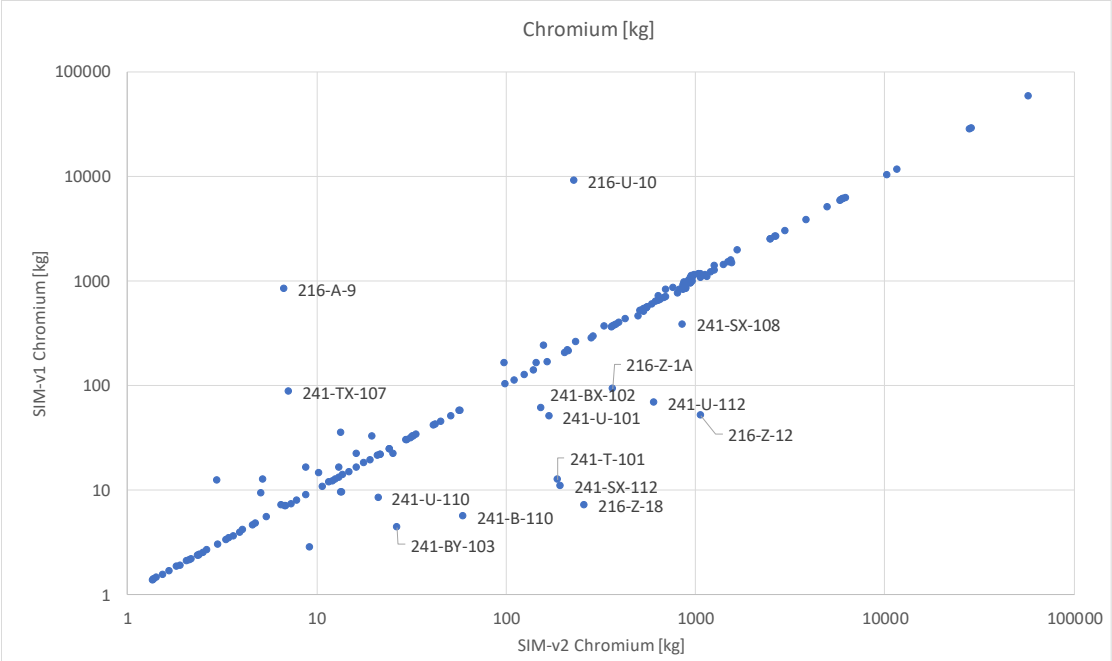

Figure 4. Chromium Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

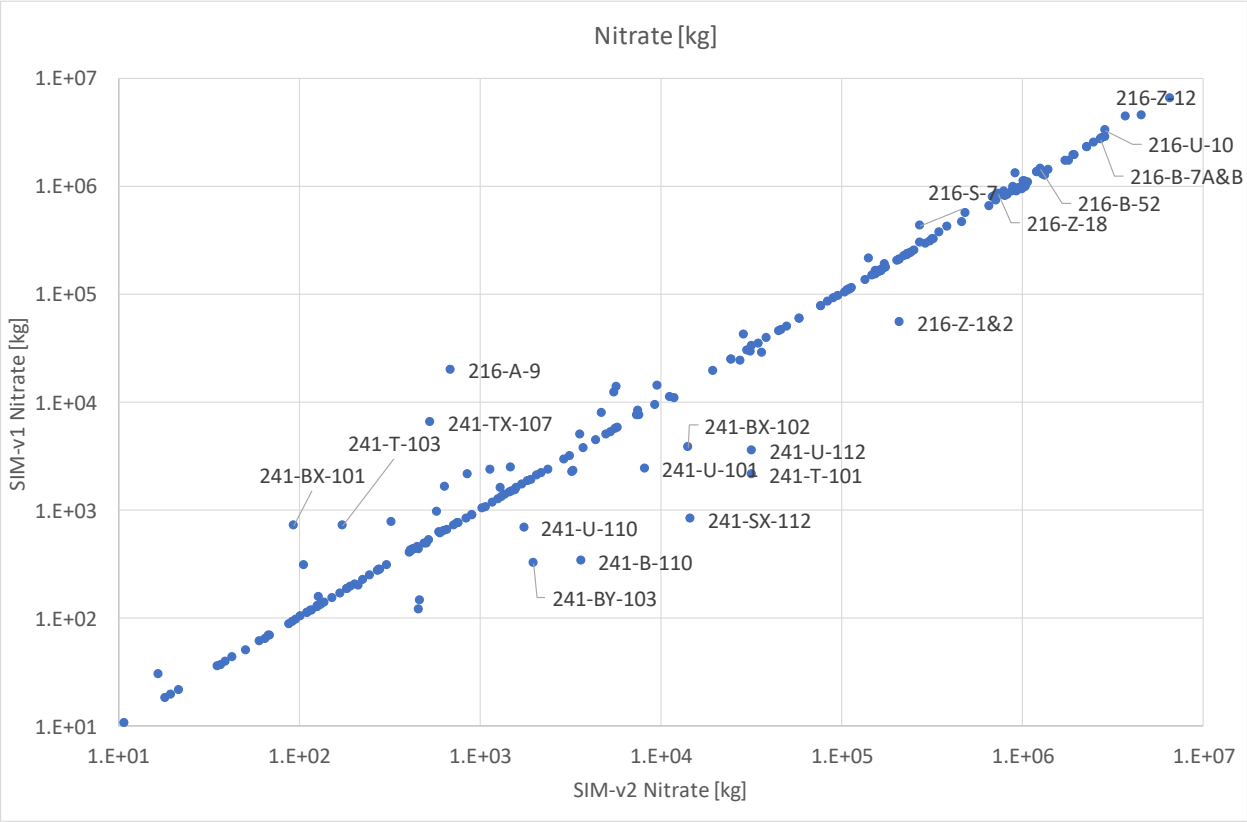

Figure 5. Nitrate Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

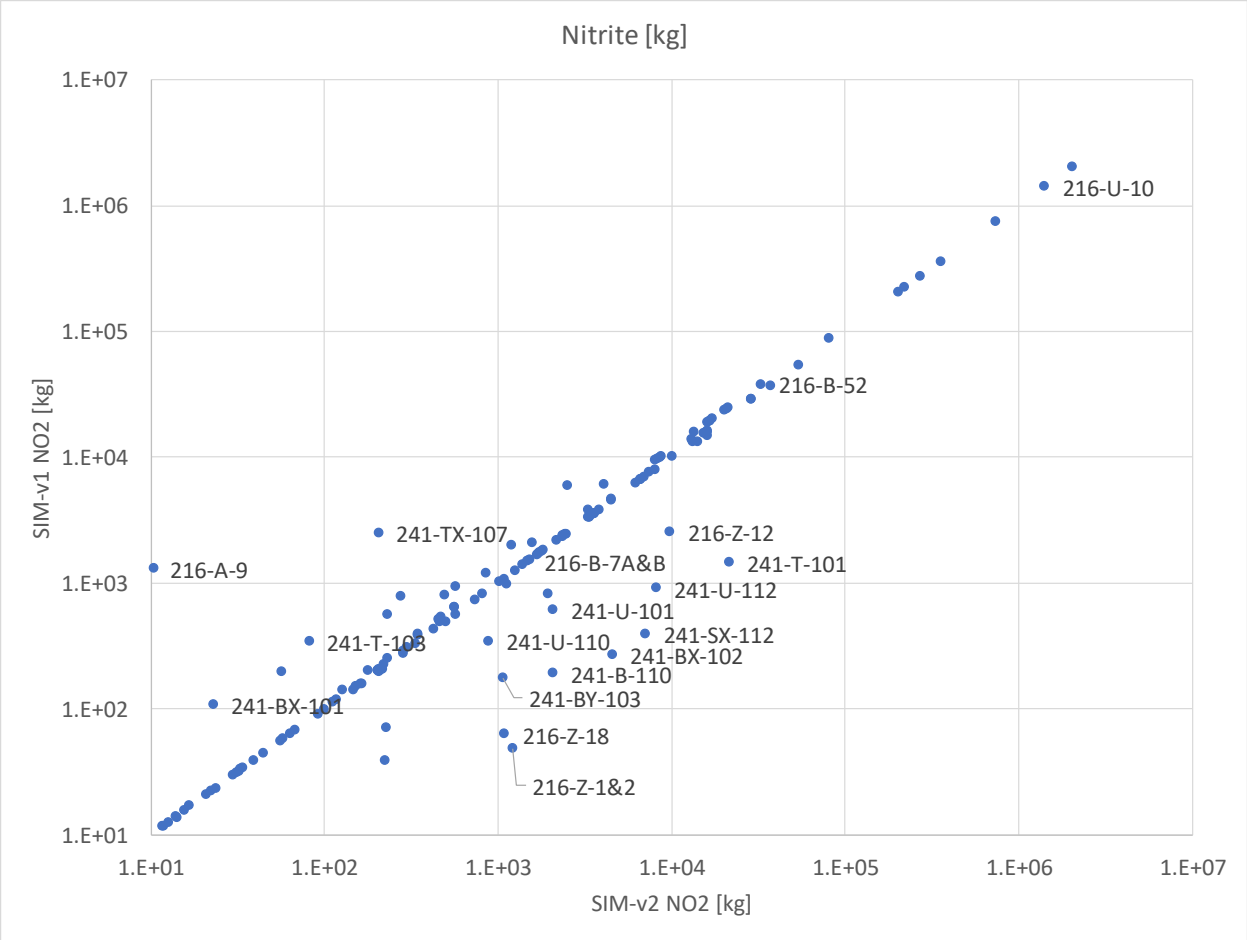

Figure 6. Nitrite Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

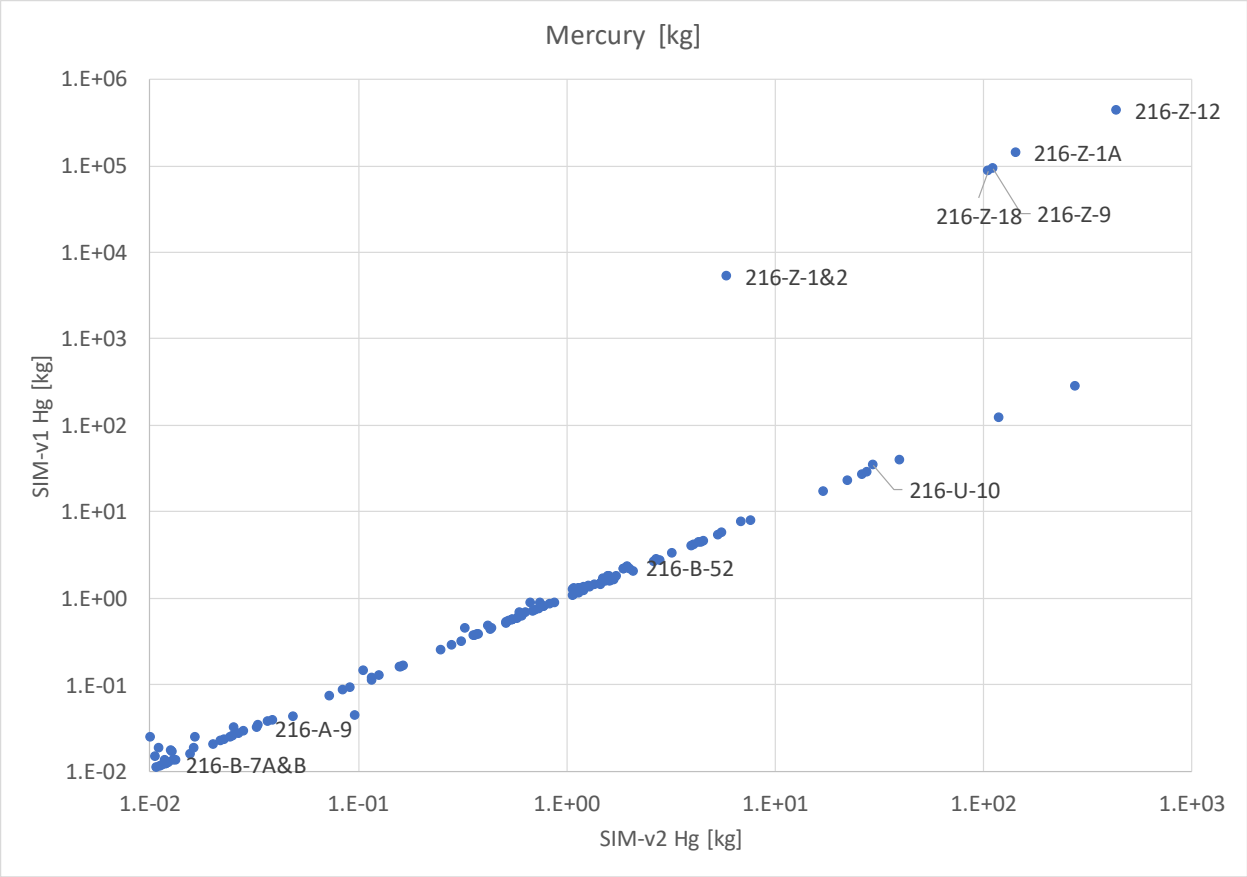

Figure 7. Mercury Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

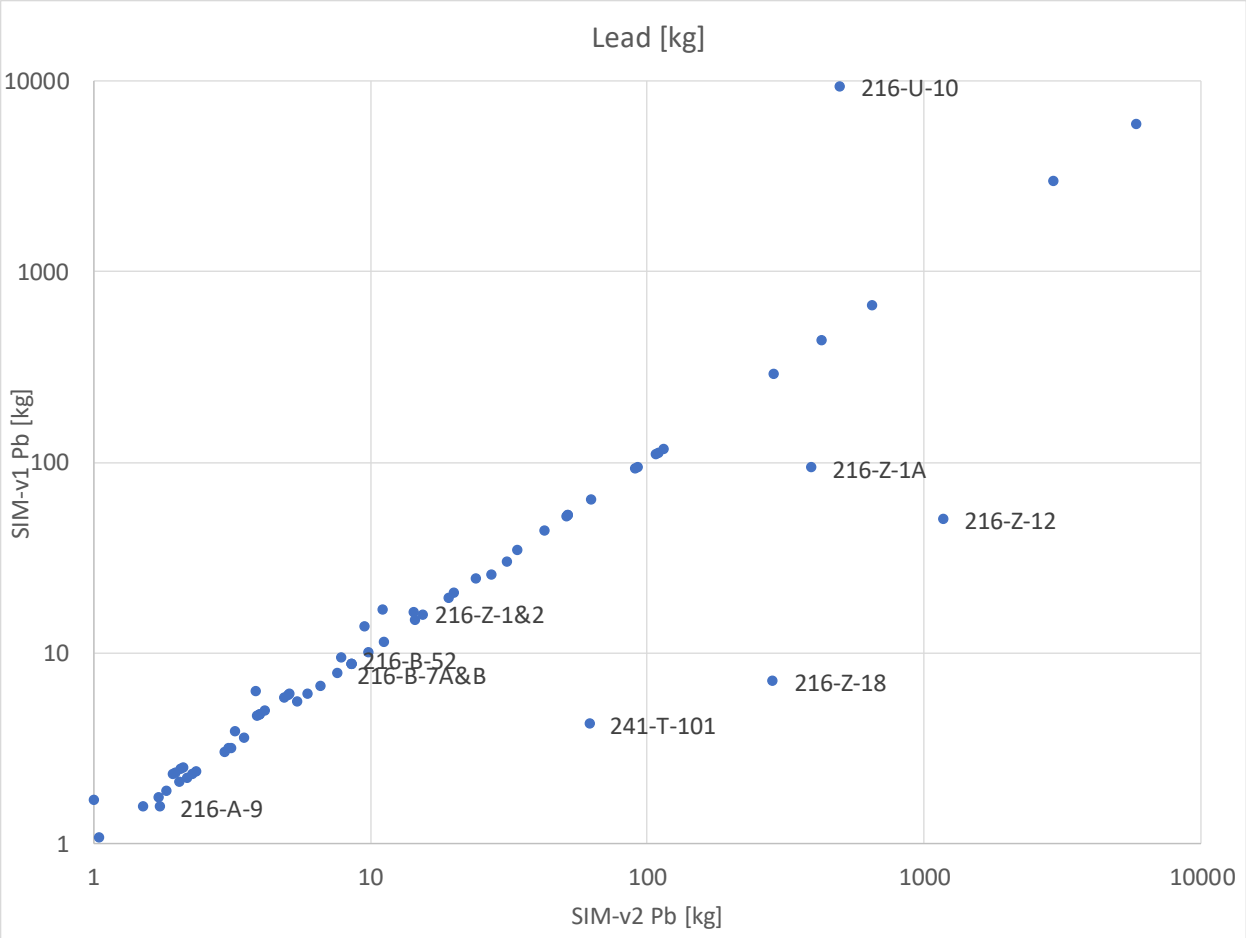

Figure 8. Lead Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

7.2.2 Chemicals with High Inventory

The inventory included significant quantities of Na, Ca, K, CO_3, PO_4, SO_4, and Al among the other 29 chemicals. The updates to these mass chemicals reflect the same site updates discussed for the risk drivers but the differences between both SIM versions are less at sites of high chemical inventory values. For sodium, as an example in Figure 9, the change in updated site inventories is relatively less at sites with high total inventory values. Other mass chemicals show similar trend of the updated inventory comparing SIM-v2 with SIM-v1 and mainly due to redistribution HSW stream in the Z Area sites and due to tank leak updates.

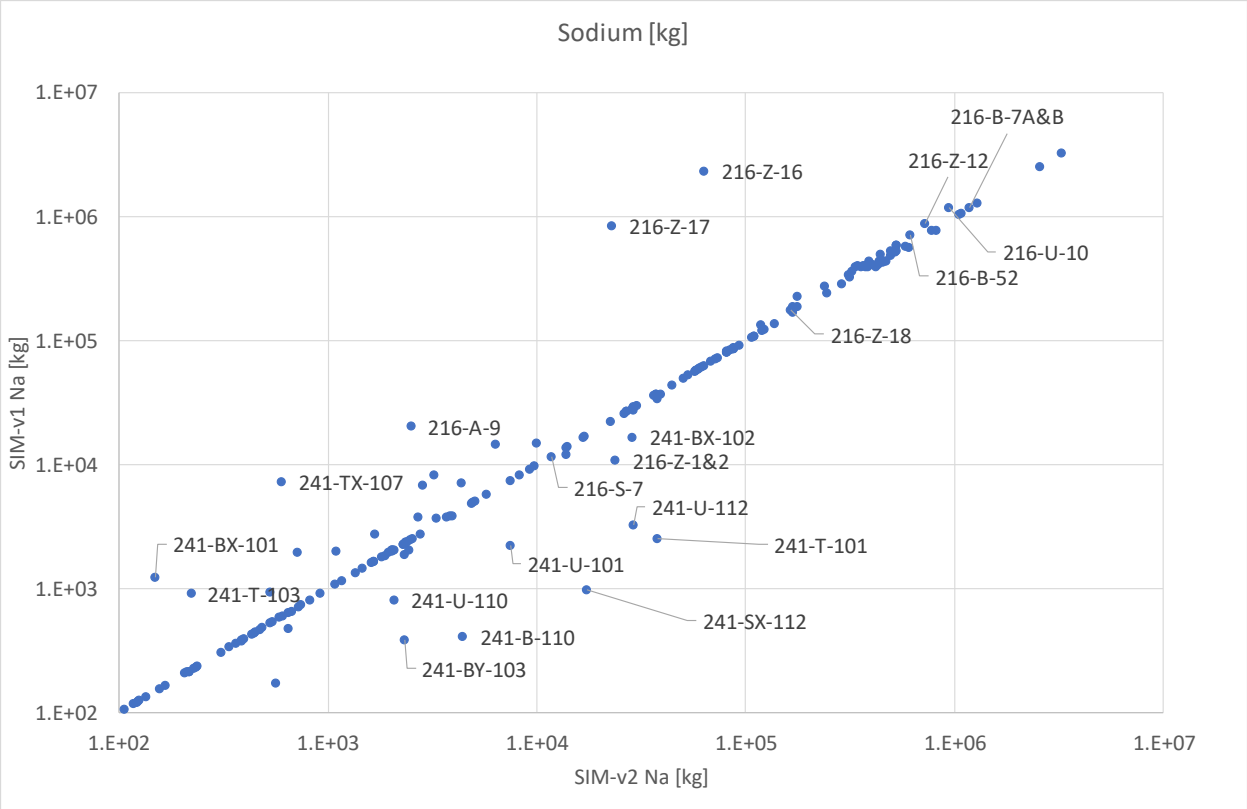

Figure 9. Sodium Updates of SIM-v2 Estimated Inventory Compared to SIM-v1

7.3 Distribution of COPC

The groundwater operable units reports identify chemical contaminants of concern (COCs) or COPCs as summarized below:

- 200-UP-1: chemical COCs are nitrate, chromium (total Cr and Cr(VI)), total uranium and carbon tetrachloride. Chemical COPCs identified are chloroform, 1,4-dioxane, perchloroethylene (PCE), and trichloroethylene (TCE) according to EPA et al., 2012, *Record of Decision for Interim Remedial Action Hanford 200 Area Superfund Site 200-UP-1 Operable Unit*
- 200-ZP-1: chemical COCs are nitrate, chromium (total Cr and Cr(VI)), carbon tetrachloride, and TCE according to EPA et al., 2008, *Record of Decision Hanford 200 Area 200-ZP-1 Superfund Site Benton County, Washington*
- 200-PO-1: Major chemical COPCs are nitrate, PCE, TCE, and total uranium according to DOE/RL-2009-85 ADD 1, Draft A, *Remedial Investigation Report for the 200-PO-1 Groundwater Operable Unit (July 2015)*
- 200-BP-5: Major chemical COPCs are nitrate, total uranium, and cyanide according to DOE/RL-2009-127, Draft A, *Remedial Investigation Report for the 200-BP-5 Groundwater Operable Unit (July 2015)*

The following sections focus on the distribution and mapping total chromium, nitrate, cyanide, and total uranium. Presented maps show the corresponding 2017 groundwater plume of each contaminant according to the COCs and COPCs identified by the operable unit:

- Nitrate, total chromium, total uranium, and cyanide are estimated among the 30 chemicals evaluated in this ECF. Their disposed inventory distribution along with identification of waste sites that received highest discharges of a given contaminant will be discussed in the following sections.
- Carbon tetrachloride discharges are estimated, and the mean site inventories are listed in Appendix B of this ECF. However, carbon tetrachloride inventories are not discussed further in this section since it was remediated from the vadose zone and its further assessment in the CIE will be in the saturated zone.
- Only total chromium inventories were estimated. No further speciation calculations are performed.
- Other chemicals, such as chloroform, 1,4-dioxane, PCE, and TCE, were not estimated in this ECF as they were not characterized in the Hanford Site waste streams used as the basis for estimating chemical inventories.

7.3.1 Total Chromium

Figure 10 presents the distribution of total chromium in the Hanford Site's 200 Areas. Eight sites received 60% of the total chromium discharges and top three sites are 216-C-1, 216-S-8, and 216-T-7 that received a mean inventory of 113 metric tons of chromium. The chromium map in Figure 11 shows the 200 Area sites that received 80% of the chromium mass with liquid discharges to the Hanford Site's 200 Areas. The larger groundwater chromium plume at a concentration of 10 µg/L has migrated to the south of the mapped sites. Other two smaller size plumes are showing in the 200 West Area in the vicinity of 216-T sites and 216-S-10P. A major update that SIM-v2 added is the redistribution of portions of the flows and inventories from the 216-U-10 Pond to upstream diches 216-Z-1D, 216-Z-11, and 216-Z-19. The ditches now show inventories marked in red color for inventories >2,000 kg of chromium that balance the reduction in the 216-U-10 Pond chromium inventory to 229 kg compared to the prior estimate of >9,000 kg chromium in SIM-v1. This corresponds to the higher plutonium observed in the ditches indicated the precipitation of wastes to the ditches upstream. The chromium was used as an oxidizing agent in the separation of plutonium.

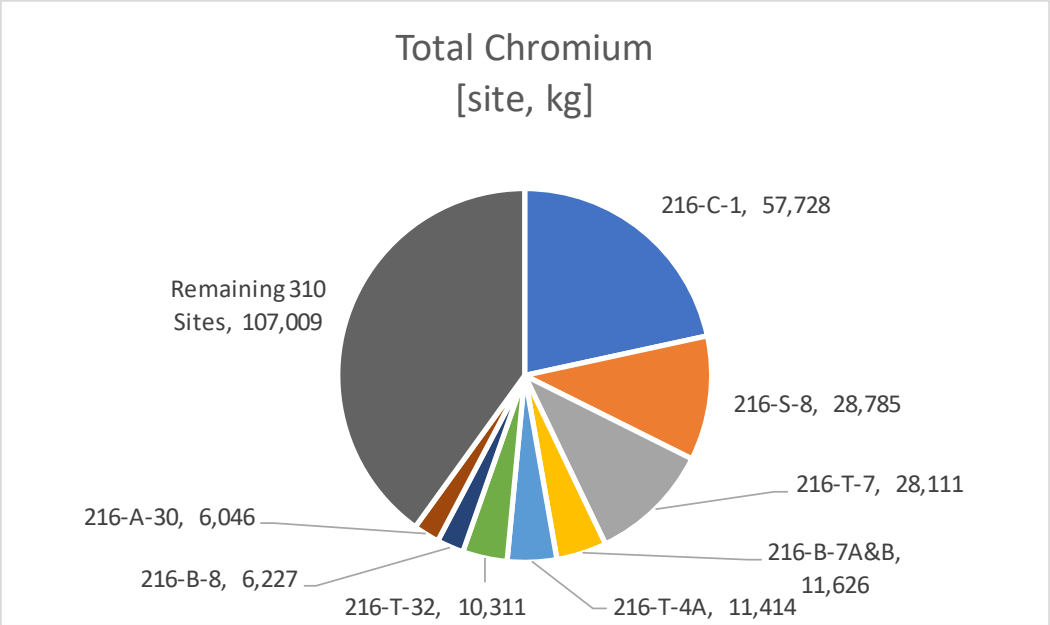

Figure 10. Distribution of 267 Metric Tons of Total Chromium Discharged in the Hanford Site's 200 Areas

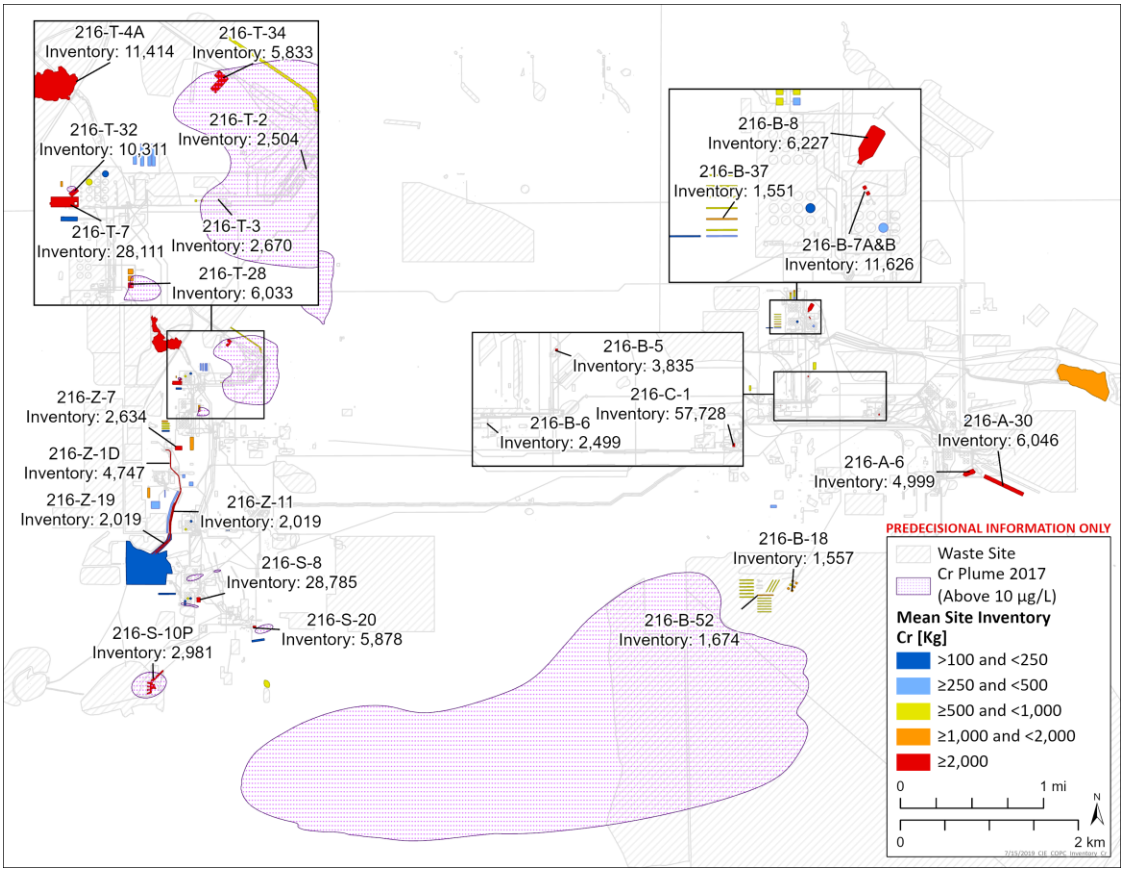

Figure 11. Chromium Map of Sites Received 80% of the Chromium Mass Discharged in the Hanford Site's 200 Areas and the 2017 Plume

7.3.2 Nitrate

Figure 12 shows the distribution of the nitrate inventory discharged to the Hanford Site's 200 Areas. About 50% of the total inventory was discharged to the indicated 16 sites. The top three sites were 216-T-7, 216-U-8, and 216-Z-12. The map in Figure 13 shows the nitrate plume and the sites that received 50% of the nitrate mass discharged to the 200 West Area. The nitrate plume expands from the 200 West Area where most of the discharged inventory located to the 200 East Area. The SIM-v2 update to the Z ditches to U-10 Pond system did not have major effect in redistribution of nitrate inventory. The nitrate inventory corresponds with the high volume discharges (e.g., to ponds such as 216-U-10 and 216-S-10P).

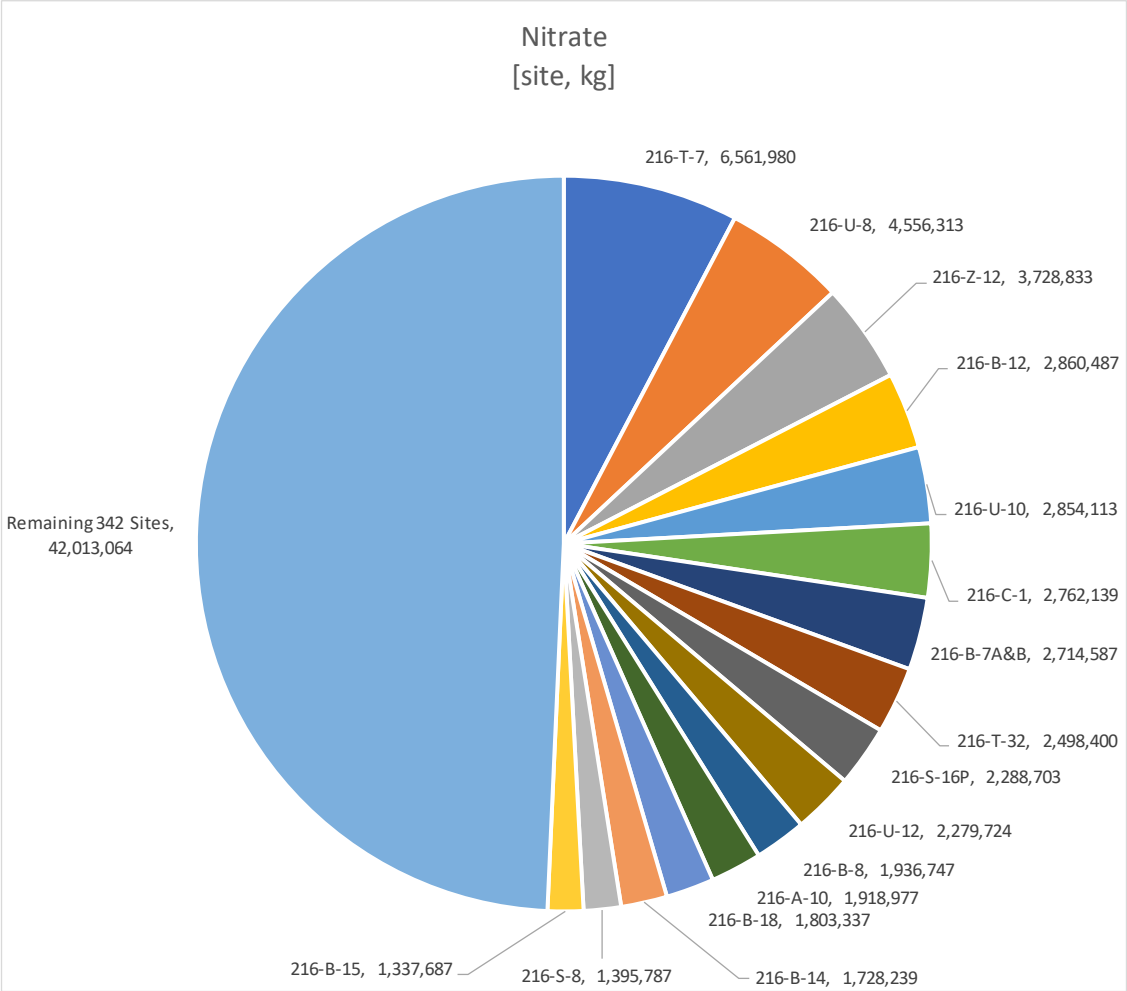

Figure 12. Distribution of 85 Thousand Metric Tons of Nitrate Inventory Discharged in the Hanford Site's 200 Areas

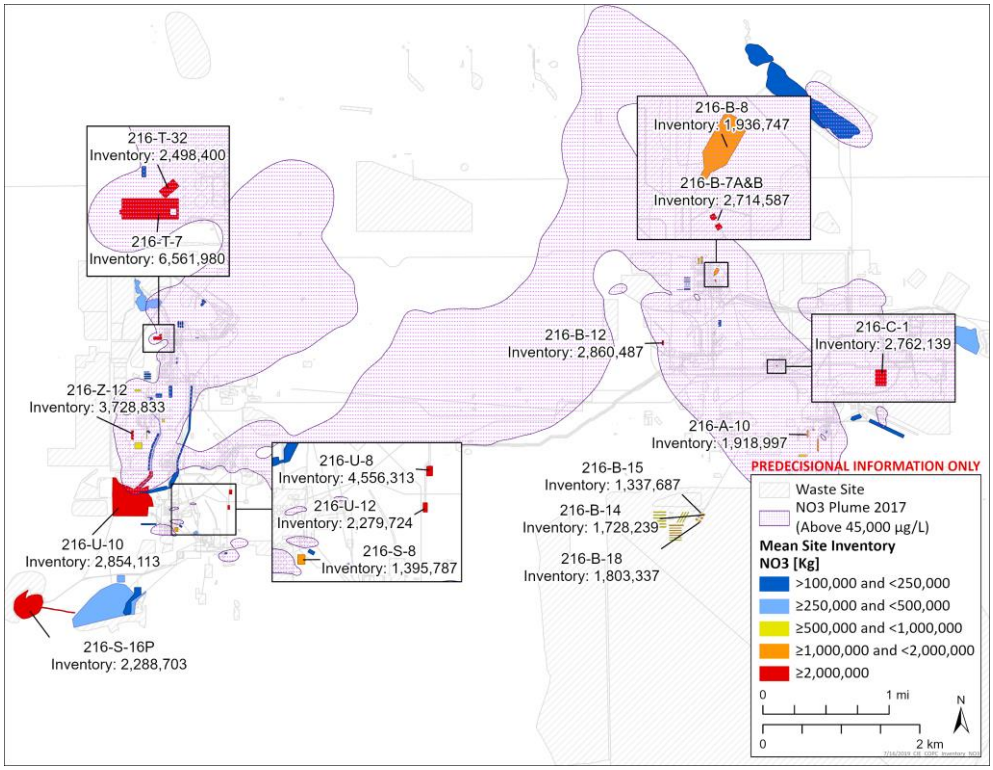

Figure 13. Nitrate Map of Sites Received 50% of the Nitrate Mass Discharged in the Hanford Site's 200 Areas and the 2017 Plume

7.3.3 Cyanide

Figure 14 presents the distribution of the best estimate of cyanide inventory in the Hanford Site's 200 Areas. The best estimate was derived from Appendix A in this ECF based on speciation modeling of scavenging waste streams following the scavenging process flowsheet assumptions. Based on the modeling assumptions about 60% of the cyanide were discharged to BC cribs, 8% to the T cribs and the remaining 32% to the BY Cribs. The estimated site inventories are consistent with the reported Waste Information Data System values (DOE/RL-92-05, *B Plant Source Aggregate Area Management Study Report*) as demonstrated in the comparisons in Appendix A of this ECF. The cribs and trenches that received most of the cyanide discharges to the 200 Areas are shown in Figure 15. The 2017 cyanide plumes mainly show up under BY cribs and to lesser extent under T cribs. No plumes are presently observed under the BC cribs and trenches although they received the largest discharges from in-plant and in-farm scavenging estimated to be 34 metric tons of cyanide as compared to 17 metric tons of cyanide at BY cribs at and 4.7 metric tons at T cribs. This may indicate that most of the cyanide inventory is still held up within the vadose zone under the BC cribs.

Figure 14. Distribution of 56 Metric Tons of Cyanide Inventory in the Hanford Site's 200 Areas

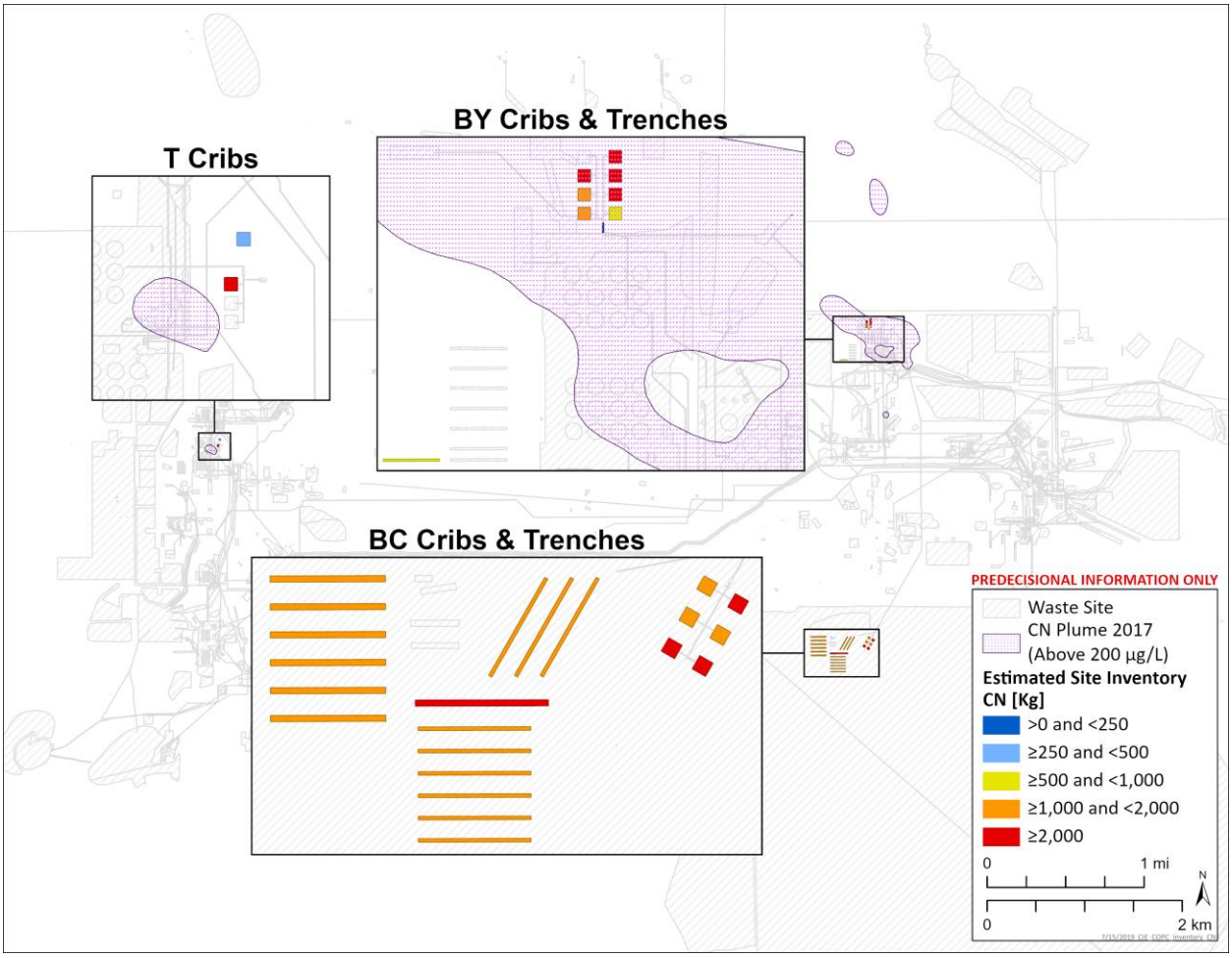

Figure 15. Cribs and Trench Sites Received Cyanide Discharges and the 2017 Cyanide Ground Water Plume

7.3.4 Total Uranium

Figure 16 shows the distribution of the total uranium discharged to the 200 Areas. A mean value of 95 metric tons representing 60% of the total uranium mass were discharged to sites 216-A-19, 216-U-8, 216-B-12, and 216-A-25. The tank leak at 241-BX-102 alone released an average of 10 metric tons of uranium to the soil. The sites that received 85% of the uranium mass are mapped in Figure 17. The largest total uranium plume in the 200 East Area is in the vicinity of the tank leak 241-BX-102 and the 216-B-12 site. Other smaller plume footprint in the 200 East Area are near 216-A-19 that received the maximum discharged inventory. The plume in the 200 West Area is in the vicinity of the 216-U-10 Pond and Z Ditches.

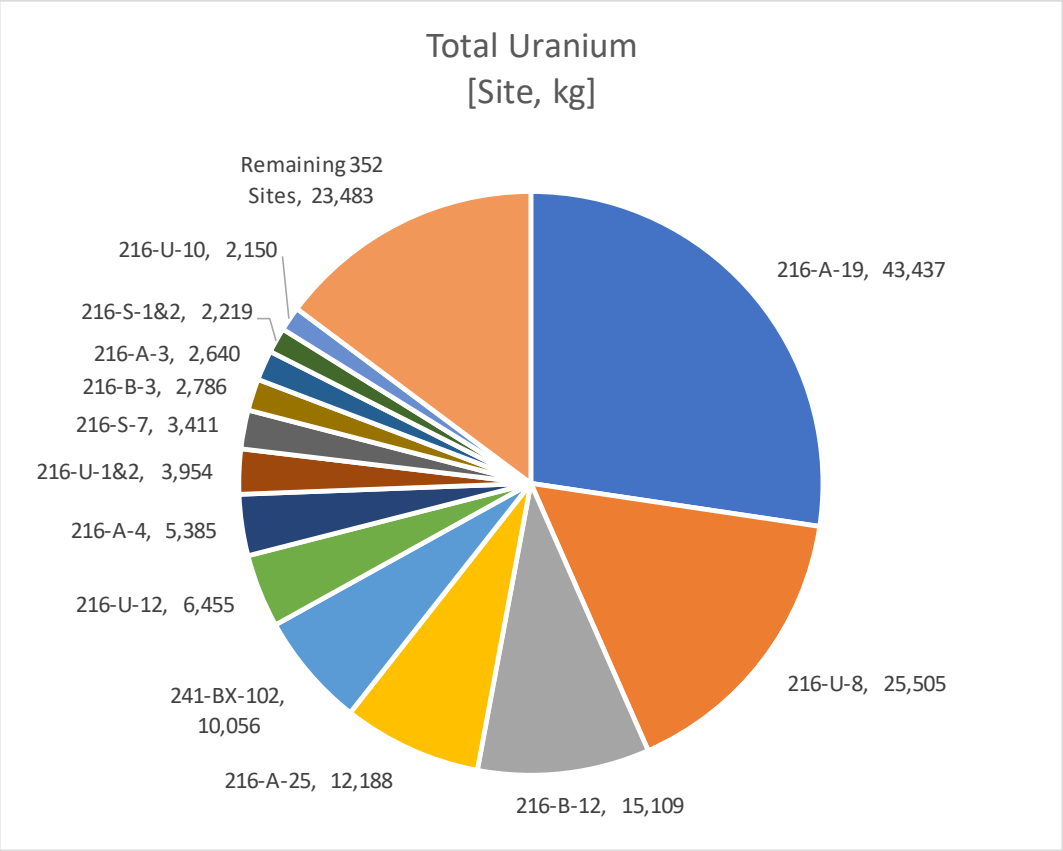

Figure 16. Distribution of 159 Metric Tons of Total Uranium Inventory Discharged in the Hanford Site's 200 Areas

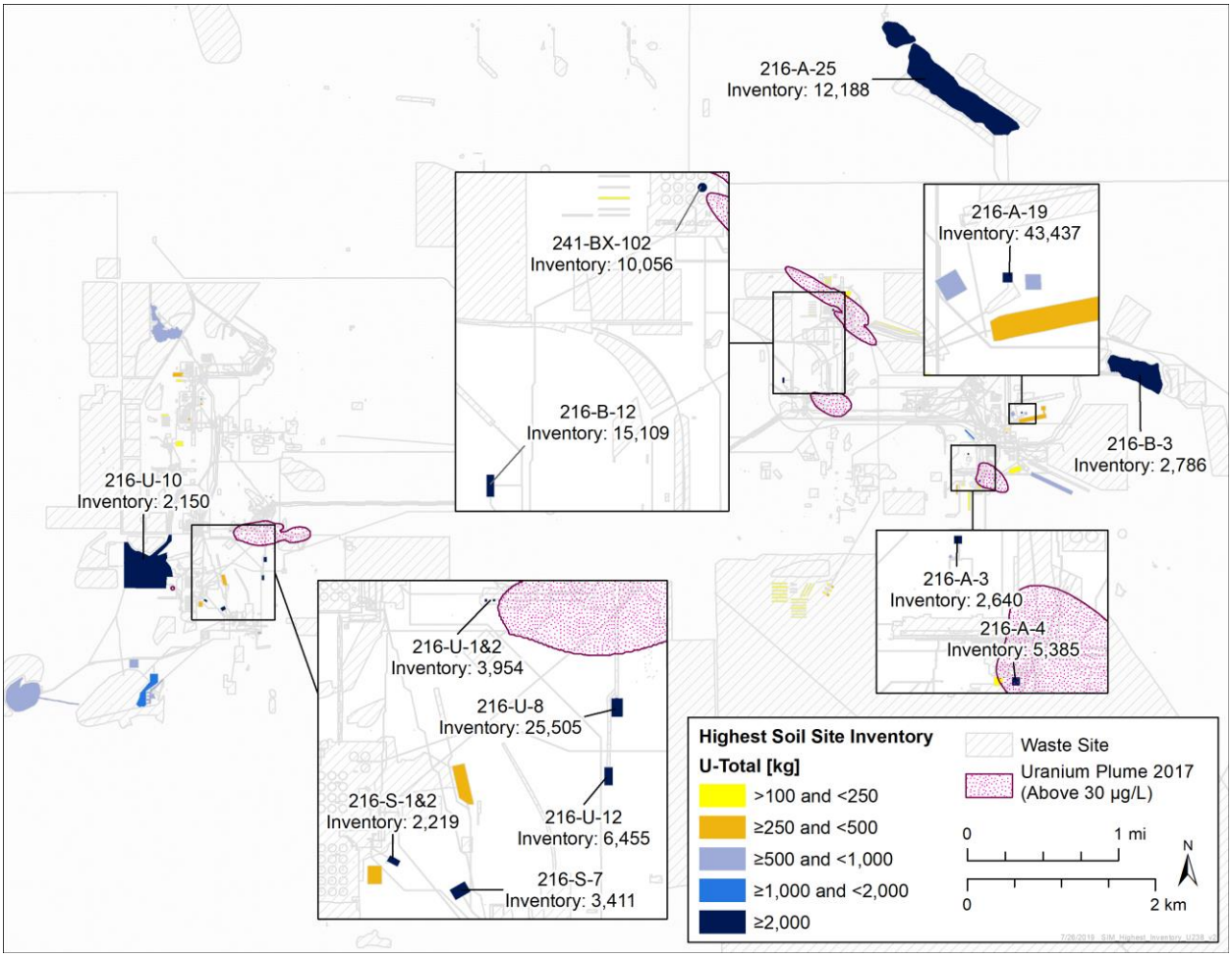

Figure 17. Total Uranium Map of Sites Received 85% of the Total Uranium Mass Discharged in the 200 Areas and the 2017 Plume

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Appendix A

Estimate of Cyanide Inventory in Hanford Site 200 Areas

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Terms

CIE	cumulative impact evaluation
COPC	contaminant of potential concern
ECF	environmental calculation file
FeCN	ferrocyanide minerals of metals and the $Fe(CN)_6^{-4}$ ion
HDW	Hanford Defined Wastes
SAD	strong acid dissociable
SIM-v2	Soil Inventory Model
TLM	Tank Layer Model
TWINS	Tank Waste Information Network System
WAD	weak acid dissociable
WIDS	Waste Information Data System
WMA	waste management area

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A1 Introduction/Purpose

The inventory estimates of chemical and radionuclide constituents released to surface discharge sites in the Central Plateau of the Hanford Site are based on the Hanford Soil Inventory Model (SIM-v2) (CP-59798, *Model Package Report: Hanford Soil Inventory Model SIM v.2: Build 1*). Following the approach presented in the Hanford Defined Waste (HDW) Model (RPP-19822, *Hanford Defined Waste Model – Revision 5.0*), SIM-v2 assumed all cyanide used during Hanford Site operations would precipitate as a metal complex in tank sludges and therefore no soluble fractions would leave the tanks as a liquid.

Because cyanide has been identified as a COPC in groundwater in the Central Plateau (DOE/RL-2017-66, *Hanford Site Groundwater Monitoring Report for 2017*) and a contaminant of potential concern (COPC) for evaluation in the cumulative impact evaluation (CIE) (DOE/RL-2018-69, Draft A, *Cumulative Impact Evaluation Technical Approach Document*), it is necessary to quantify the inventory of cyanide released at liquid discharge sites.

This appendix summarizes the available information that can be used to define the cyanide inventory at cribs/trenches and tank leaks. The appendix also compares four different estimates of the cyanide inventory at crib and trench sites and applies tank sample concentrations to estimate cyanide inventory from past leaks from tanks.

A2 Approaches to Estimate Cyanide Inventory

Multiple approaches and sources were applied and compared to evaluate cyanide inventory discharged at liquid discharge sites (cribs/trenches and tank leaks). The approach is briefly described here with details presented in next section.

A2.1 WIDS Reported Crib Inventory

The Waste Information Data System (WIDS) database and supporting documents do not currently keep cyanide discharge records. However, one report (DOE/RL-92-05, *B Plant Source Aggregate Area Management Study Report*) listed historical WIDS records of total ferrocyanide (FeCN) inventory and discharge volume for various cribs and trenches. This historical information is referred to as WIDS records in this appendix. While it is not clear how this waste inventory was derived, our assessment is that the WIDS reported discharged inventory of ferrocyanide is about half of the added ferrocyanide mass during scavenging process. Although the WIDS records did not present the annual discharges, they do provide an estimate of the total cyanide discharged to cribs.

A2.2 Nitrate/Cyanide Ratio Approach

A consistent ratio of nitrate-to-cyanide concentrations has been observed during groundwater monitoring conducted in portions of the Central Plateau. For example, groundwater monitoring data show similar trend of nitrate and cyanide in wells near the BY crib sites since 1991. Because the nitrate inventory was estimated by SIM-v2, the observed nitrate/cyanide ratio in the groundwater can be used to estimate the cyanide inventory from the available SIM-v2 nitrate inventory. This approach may underestimate the cyanide inventory discharged to cribs and trenches since some cyanide species are less mobile in the soil column compared to nitrate as documented in Dzombak et al., 2006, “Cyanide in Water and Soil – Chemistry Risk and Management.”

A2.3 Speciation-Based Approach

A chemical speciation modeling based approach provides an estimate of aqueous (soluble) cyanide complexes in the four process waste streams considered in SIM-v2 to estimate inventories from the scavenging campaigns that added the cyanide. This approach is consistent with SIM-v2 inputs and uses the same discharges used to estimate inventory of other chemicals and radionuclides from the four waste streams: PFeCN1, PFeCN2, C1FeCN, and TFeCN. The speciation-based approach cannot be applied to tank leaks because the tank leaks occurred 15 to 20 years after the tanks received the scavenging waste streams. Therefore the resulting cyanide concentration of the leaks would be very different from the scavenging waste stream composition due to subsequent addition of other waste streams along with aging effects from radiolytic and chemical degradation.

A2.4 Tank Sample-Based Approach

Tank samples have been analyzed to quantify the amount of cyanide remaining in the tank sludges and interstitial fluids. This information can be used to estimate the cyanide concentration in the drainable liquids and to bound the potential cyanide inventory of tank leaks. SIM-v2 (Appendix B in ECF-Hanford-17-0079, *Hanford Soil Inventory Model (SIM-v2) Calculated Radionuclide Inventory of Direct Liquid Discharges to Soil in the Hanford Site's 200 Areas*) identified the following leaking tanks: 241-BY-103, 241-S-104, 241-C-104, 241-C-108, 241-C-110, and 241-C-112 which received scavenging waste streams. This approach is only applied to estimate tank leak inventory and is not suitable for estimating cyanide discharged to cribs and trenches during the scavenging campaign.

A2.5 Empirical Tank Sludge Correlation Approach

The empirical tank sludge correlation approach is based on analysis of FeCN in the tank sludge to amounts added during the scavenging campaign. The information on FeCN additions to each tank and estimate of sludge mass when compared with the measured tank FeCN sludges is used to estimate the amount of mass transferred to the cribs. This mass balance approach is based on empirical observations and correlations derived from tanks that were primary receivers of FeCN.

A3 Calculation Approach and Assumptions

A3.1 Calculation Using WIDS Reported Crib Inventory

Table A-1 summarizes the WIDS records reported in DOE/RL-92-05. From this information, discharged FeCN waste concentration is derived by dividing the reported inventory by the corresponding liquid volume discharged for each waste site. The average derived concentration is 0.53 g/L (as $Fe(CN)_6^{4-}$) which corresponds to 50% of the added $Fe(CN)_6^{4-}$ at 0.005 M (1.06 g/L). While the basis of the calculation is not available, it may be explained by the stoichiometry of the original scavenging process flowsheets (HW-30399, *TBP Plant Nickel Ferrocyanide Scavenging Flowsheet*; PNL-7822, *A Summary of Available Information on Ferrocyanide Tank Wastes*) where half of the added $Fe(CN)_6^{4-}$ could be in the soluble form and precipitating sludge possibly in the form of $Ni_2Fe(CN)_6$. It should be noted that the inventory of 216-B-21 was not listed. In addition, 216-T-18 and 216-T-26 were not listed in the reported WIDS records in DOE/RL-92-05.

Table A-1 lists the reported FeCN inventory (as $Fe(CN)_6^{4-}$) and discharged volume from DOE/RL-92-05. The concentration in the fourth column is calculated as the inventory divided by the corresponding volume. In the last column, the inventory is calculated as cyanide according to Equation A-1.

Table A-1. WIDS Records of Fe(CN)64- (FeCN) Inventory

Site	FeCN (kg)	Vol (m^3)	Derived concentration (g/L)	Cyanide (kg)
216-B-14	5,000	8,710	0.57	3,683
216-B-15	3,300	6,320	0.52	2,431
216-B-16	3,000	5,600	0.54	2,210
216-B-17	1,800	3,410	0.53	1,326
216-B-18	5,000	8,520	0.59	3,683
216-B-19	3,400	6,400	0.53	2,504
216-B-20	2,500	4,680	0.53	1,841
216-B-21	0	4,670	0	0
216-B-22	2,500	4,740	0.53	1,841
216-B-23	2,400	4,520	0.53	1,768
216-B-24	2,500	4,700	0.53	1,841
216-B-25	2,000	3,760	0.53	1,473
216-B-26	3,100	5,880	0.53	2,283
216-B-27	2,300	4,420	0.52	1,694
216-B-28	2,700	5,050	0.53	1,989
216-B-29	2,600	4,840	0.54	1,915
216-B-30	2,500	4,780	0.52	1,841
216-B-31	2,500	4,740	0.53	1,841
216-B-32	2,500	4,770	0.52	1,841
216-B-33	2,500	4,740	0.53	1,841
216-B-34	2,600	4,870	0.53	1,915
216-B-42	800	1,500	0.53	589
216-B-43	1,100	2,120	0.52	810
216-B-44	3,000	5,600	0.54	2,210
216-B-45	2,600	4,920	0.53	1,915
216-B-46	4,000	6,700	0.60	2,946
216-B-47	2,000	3,710	0.54	1,473
216-B-48	2,200	4,090	0.54	1,620

Table A-1. WIDS Records of Fe(CN)64- (FeCN) Inventory

Site	FeCN (kg)	Vol (m^3)	Derived concentration (g/L)	Cyanide (kg)
216-B-4S	4,000	6,700	0.60	2,946
Average concentration of discharges			0.53	

Source: DOE/RL-92-05, *B Plant Source Aggregate Area Management Study Report*.

WIDS = Waste Information Data System

$$Cyanide\ [kg] = FeCN[kg] \cdot \frac{6 * MW_{CN^-}}{MW_{\mathrm{Fe(CN)}_6^{-4}}} \quad \textbf{(Eq. A-1)}$$

where:

$MW_{CN^-} = 26\ [\frac{g}{M}]$ and $MW_{\mathrm{Fe(CN)}_6^{-4}} = 211.8\ [\frac{g}{M}]$.

A3.2 Calculation Using Nitrate/CN Ratio Approach

A simple approach according to Equation A-2 was applied for estimating cyanide inventory by scaling SIM-v2 estimated nitrate inventory $NO_3^-\ [kg]$ using a fixed nitrate/cyanide ratio based on the groundwater monitoring data under the BY cribs. The results are listed in Table A-2.

Table A-2. Cyanide Inventory Based on Approximate Nitrate to Cyanide Ratio of 1,000

Site	SIM-v2 NO3 (kg)	Cyanide (kg)
216-B-14	1,728,239	1,728
216-B-15	1,337,687	1,338
216-B-16	1,066,070	1,066
216-B-17	481,197	481
216-B-18	1,803,337	1,803
216-B-19	1,032,930	1,033
216-B-20	789,560	790
216-B-21	941,183	941
216-B-22	873,461	873
216-B-23	829,718	830
216-B-24	1,030,781	1,031
216-B-25	1,039,247	1,039

Table A-2. Cyanide Inventory Based on Approximate Nitrate to Cyanide Ratio of 1,000

Site	SIM-v2 NO3 (kg)	Cyanide (kg)
216-B-26	1,004,971	1,005
216-B-27	935,534	936
216-B-28	946,835	947
216-B-29	987,014	987
216-B-30	765,527	766
216-B-31	780,343	780
216-B-32	740,503	741
216-B-33	689,803	690
216-B-34	705,056	705
216-B-42	270,211	270
216-B-43	381,899	382
216-B-44	1,008,789	1,009
216-B-45	886,303	886
216-B-46	1,206,944	1,207
216-B-47	711,142	711
216-B-48	736,776	737
216-B-49	1,206,944	1,207
216-B-51	212	0.21
216-B-52	1,267,703	1,268
216-T-18	32,041	32
216-T-26	346,118	346

$$Cyanide\ [kg] = \frac{NO_3^-\ [kg]}{f_{\frac{nitrate}{cyanide}}} \qquad \textbf{(Eq. A-2)}$$

where:

$f_{\frac{nitrate}{cyanide}} \cong 1{,}000.$

The approach assumes the following:

1. The groundwater concentrations are associated with the discharged mass at certain cribs/trenches.
2. The cyanide is not retarded in transport through the vadose zone.
3. Groundwater monitoring data under the BY cribs can be applied to BC and T cribs approximating the groundwater nitrate concentration to cyanide concentration ratio ($f_{\frac{nitrate}{cyanide}}$) to 1,000 on the basis of the following discussion of groundwater monitoring data

Groundwater monitoring data (Figure A-1) show similar trend of nitrate and cyanide in wells near the BY crib sites (216-B-43, 216-B-44, 216-B-45, 216-B-46, 216-B-47, 216-B-48, and 216-B-49). Figure A-1 shows the nitrate and cyanide concentration profiles since 1991 sampled for well 299-E33-38 south of the BY cribs. Nitrate and cyanide have the same profile with the nitrate concentration about 1,000 times higher. Both mean and median of the cyanide/nitrate ratio are at 7.3E-4 for well 299-E33-38. As shown in Figure A-2, the groundwater cyanide concentrations have remained above 200 µg/L (indicator threshold) in other wells near the BY cribs (DOE/RL-3017-66).

The cyanide to nitrate ratio was also analyzed near Waste Management Area (WMA) C for well 299-E27-14 (Figure 3) and shows some variability over time (RPP-RPT-59197, *Analysis of Past Tank Waste Leaks and Losses in the Vicinity of Waste Management Area C at the Hanford Site*). The well is located near tanks in WMA C that have leaked in the past and represents the impact of tank leaks. The corresponding cyanide to nitrate ratio varies from about 1: 5000 to 1: 10,000. A similar trend has not been observed under BC cribs (DOE/RL-2017-66). Cyanide was observed near T cribs in well 299-W14-11 with a cyanide to nitrate ratio of about 1: 1500.

For the purpose of estimating the cyanide inventory discharged to the cribs, a 1:1000 ratio of cyanide to nitrate is assumed. This ratio is applied to the SIM estimated nitrate discharged inventory to cribs that received ferrocyanide waste streams (Table A-2).

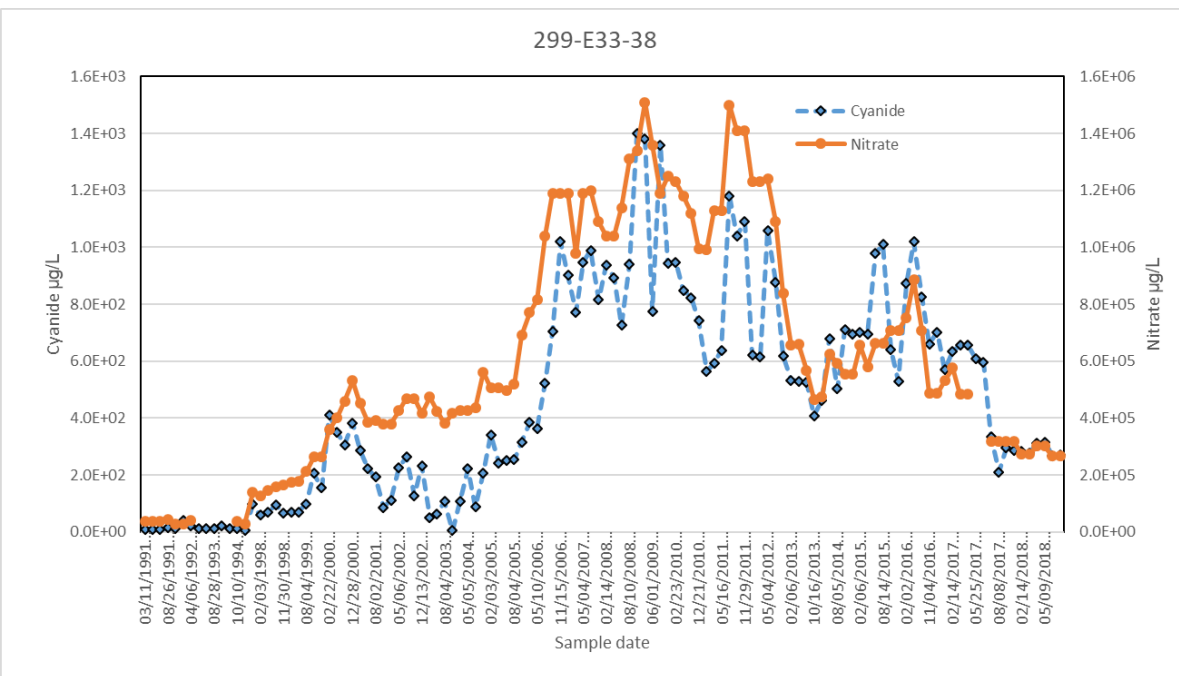
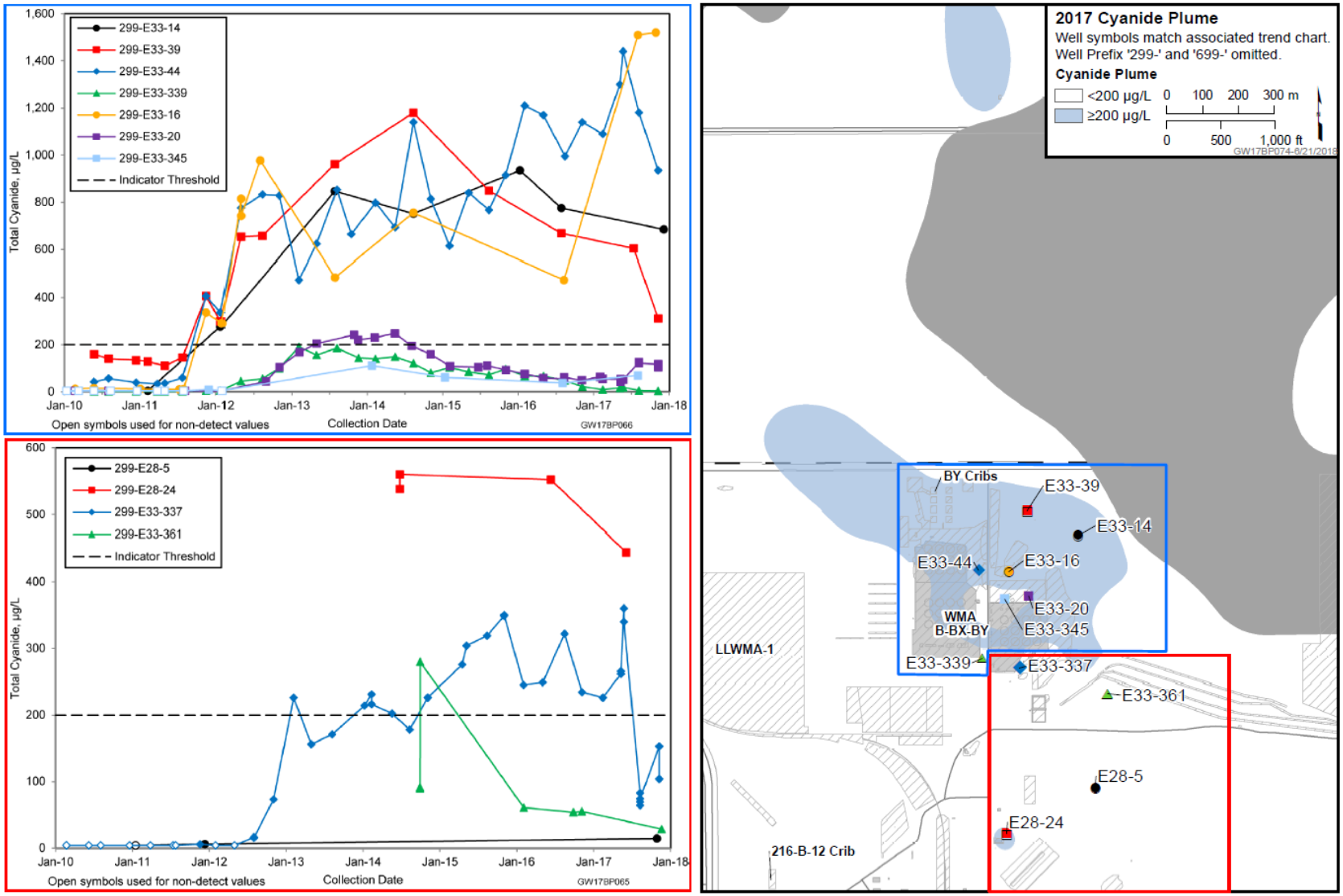
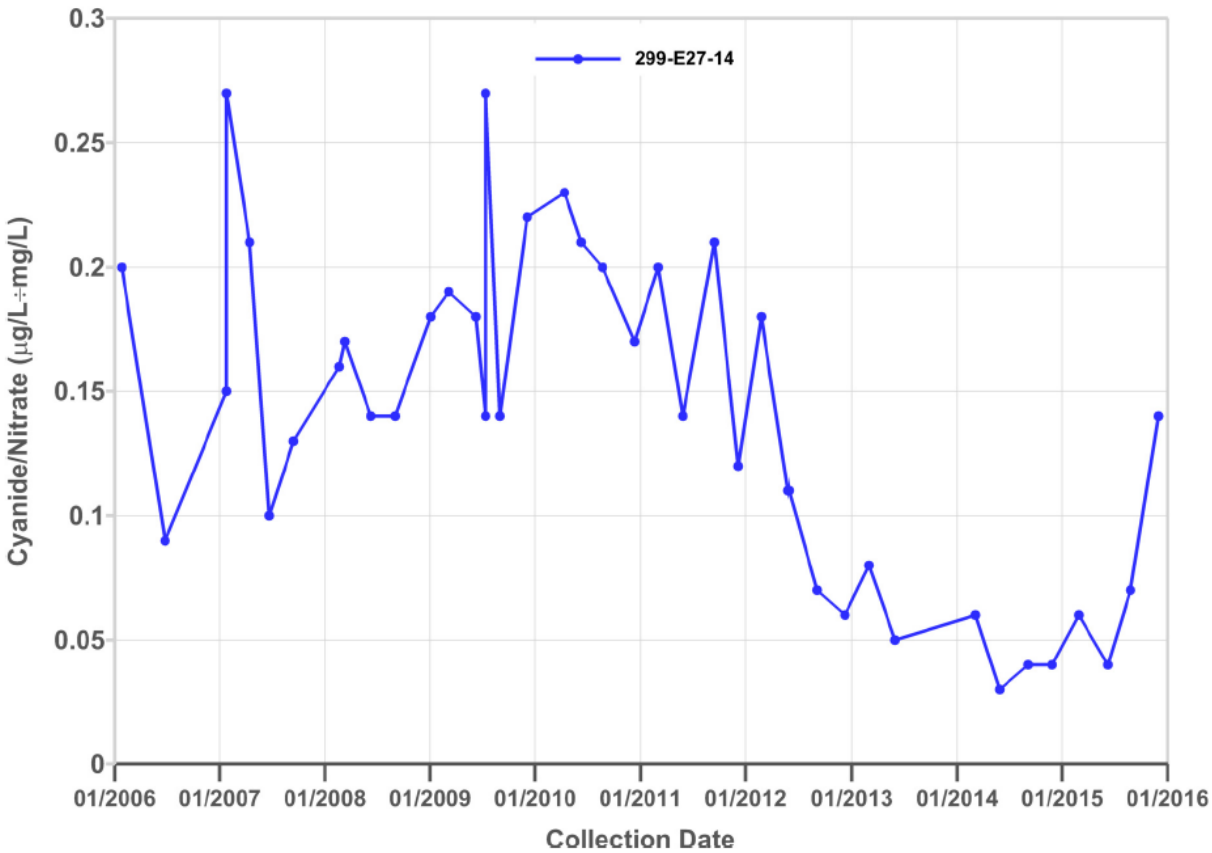


Figure A-1. Nitrate and Cyanide Profile for Well 299-E33-38 in the BY Cribs Area



Source: DOE/RL-2017-66, *Hanford Site Groundwater Monitoring Report for 2017*.

Figure A-2. Reported Groundwater Cyanide in the BY Area



Adapted from Figure 2-29 in RPP-RPT-59197, *Analysis of Past Tank Waste Leaks and Losses in the Vicinity of Waste Management Area C at the Hanford Site*.

Figure A-3. Cyanide-to-Nitrate Ratio for Well 299-E27-14 Near WMA C

A3.3 Calculation Using Speciation-Based Approach

The chemical speciation-based modeling approach is developed to provide an-estimate of cyanide inventory that is consistent with WIDS records and SIM-v2. The speciation modeling is aimed to estimate the soluble cyanide (aqueous complexes) that was likely discharged with supernatant sent to cribs and trenches. The soluble portion is estimated from the ionic composition of scavenging stream after adding chemicals, ferrocyanides, and nickel. The soluble portion of the inventory is a balance of the added chemicals less the precipitated minerals including nickel ferrocyanide complexes. Stoichiometrically, the maximum cyanide in the supernatant occurs when the precipitating cyanide mineral is mostly $Ni_2Fe(CN)_6$ (i.e., consistent with the scavenging process flowsheets) as $Fe(CN)_6^{4-}$ and Ni^{2+} were dosed in equal molar masses. Because there were other ions present, the speciation modeling methodology uses the HDW model defined waste stream composition in the three scavenging process campaigns considered in SIM-v2 to estimate discharged inventory of chemicals and radionuclides. The total soluble concentration of cyanide was multiplied by the corresponding discharge records to soil sites from SIM-v2 to estimate the cyanide inventory assuming the density of discharged supernatant was 1 g/mL.

To quantify the cyanide species in each of the four waste streams from the three scavenging processes, the U.S. Geological Survey program PHREEQC Version 3.1.4 (Parkhurst and Appelo, 2013) was applied using the MINTEQ database “minteq.v4.dat” (EPA, 1999). For calculating solute activities, we have relied on using ion-association aqueous model (Debye-Hückel equation) to account for the non-ideality of aqueous solutions. We would like to note that the ionic strength of the scavenging waste streams is higher

than the Debye-Hückel simplified model can be used reliably over. However, the simplified model was used in the current speciation due to the limitations of internally consistent thermodynamic database and lack of solubility studies of nickel ferrocyanide minerals under high ionic strength conditions.

The PHREEQC library "minteq.v4.dat" contains very comprehensive listing of cyanide species. However, both $Ni_2Fe(CN)_6$ and $Na_2NiFe(CN)_6$ that are mainly expected in the tank sludge are not listed in the library. These were added to the PHREEQC input file. Solubility of 7E-07 mol Ni/L for both $Ni_2Fe(CN)_6$ and $Na_2NiFe(CN)_6$ were reported in Kareta et al., 1997, "A study of the properties of hexacyanoferrate sorbents and their use for sorption of caesium and strontium, Waste treatment and immobilization technologies involving inorganic sorbents." The $Ni_2Fe(CN)_6$ mineral should be much less soluble and therefore the reported solubility perhaps results from the difficulty and limitation of measuring solubility of nickel ferrocyanide minerals. Thus, the solubility products for the reactions were derived from free energies of forming ions and free energy of the OH- ion adding water dissociation to each mineral dissociation reaction as described in Section A.3.3.2. The software quality assurance requirements are described in the software section of environmental calculation file (ECF).

A3.3.1 Inputs

Table A-3 lists the PHREEQC input that was extracted from the HDW model (RPP-19822).

Table A-3. Input Concentrations for PHREEQC Speciation

Analyte	PFeCN1	PFeCN2	TFeCN	1CFeCN
Na	4.21E+00	4.20E+00	3.61E+00	1.80E+00*
Al	0.00E+00	0.00E+00	1.10E-02	0.00E+00
Fe	3.50E-02	3.25E-02	6.69E-03	6.88E-03
Cr	3.20E-03	3.20E-03	4.59E-03	2.00E-03
Bi	1.80E-04	1.80E-04	2.55E-04	1.40E-02
Hg	1.74E-05	1.74E-05	1.30E-06	1.83E-05
Zr	0.00E+00	0.00E+00	7.77E-05	4.00E-03
Pb	0.00E+00	0.00E+00	6.61E-06	0.00E+00
Ni	5.00E-03	2.50E-03	5.00E-03	5.00E-03
Sr	2.48E-06	4.00E-03	4.41E-07	8.61E-08
Ca	1.84E-02	1.84E-02	2.34E-02	2.00E-02
K	1.66E-02	1.66E-02	1.48E-02	4.20E-03
N(+5)	3.10E+00	3.11E+00	2.67E+00	1.47E+00*
N(+3)	0.00E+00	0.00E+00	1.22E-01	1.70E-01
C(+4)	1.84E-02	1.84E-02	1.20E-01	2.18E-02
P	1.30E-01	1.30E-01	6.28E-02	4.60E-01*
S(6)	1.85E-01	1.85E-01	1.15E-01	2.14E-02

Table A-3. Input Concentrations for PHREEQC Speciation

Analyte	PFeCN1	PFeCN2	TFeCN	1CFeCN
Si	3.50E-02	3.50E-02	5.09E-03	3.80E-02
F	2.10E-01	2.10E-01	9.16E-02	2.28E-01
Cl	7.62E-02	7.62E-02	8.19E-02	1.93E-02
Cyanide	3.00E-02	1.50E-02*	3.00E-02	3.00E-02
N(-3)	2.42E-06	8.85E-08	2.61E-02	4.32E-07
U	1.43E-03	1.43E-03	1.27E-04	1.11E-03

Note: all concentrations reported in mol/L.

*Updates from process description and flowsheets (WHC-EP-0631, *Ferrocyanide Waste Simulant Characterization*).

A3.3.2 Speciation Modeling Assumptions

The density was set to 1.023 kg/L for the four waste streams and was assumed to be 1 kg/L for the supernatant. The pH was buffered to 9.25 as part of the scavenging process in the four waste streams. Redox potential was specified in the input as the negative log of the conventional activity of the electron (pe). For the four waste streams, pe was set to 8.45.

The solubility products (K_{sp}) of selected ferrocyanide solids were evaluated from the free energies of formation and activity of water and OH^-. The corresponding dissociation reactions of the considered ferrocyanide species were as follows:

$$K_2CdFe(CN)_6(s) + H_2O \leftrightarrow 2K^+ + Cd^{2+} + Fe^{2+} + 6CN^- + OH^- + H^+ \ (\log K_{sp} = -63)$$

$$K_2NiFe(CN)_6(s) + H_2O \leftrightarrow 2K^+ + Ni^{2+} + Fe^{2+} + 6CN^- + OH^- + H^+ \ (\log K_{sp} = -69)$$

$$Na_2NiFe(CN)_6(s) + H_2O \leftrightarrow 2Na^+ + Ni^{2+} + Fe^{2+} + 6CN^- + OH^- + H^+ \ (\log K_{sp} = -76)$$

$$Ni_2Fe(CN)_6(s) + H_2O \leftrightarrow 2Ni^{2+} + Fe^{2+} + 6CN^- + OH^- + H^+ \ (\log K_{sp} = -160)$$

The first reaction including cadmium was not part of the model but was used to check the K_{sp} calculation approach. The log K_{sp} of $K_2CdFe(CN)_6$ is calculated to be -63, which matches the value reported in Table 5.8 of Dzombak el al., 2006. The table listed the log K_{sp} values of alkali and alkaline earth complexes with ferrocyanide where the negative log K_{sp} values were decreasing with the increasing number of complexing metal ions and their size. For example, nickel ferrocyanide complexes with potassium were ranging from -123 to -431, which explains the relatively low log K_{sp} of -160 calculated for the dissociation of $Ni_2Fe(CN)_6(s)$ (as presented in the last equation). The energy of formation reaction ΔGr was calculated from the standard-state Gibbs free energy of the involved ions and water activities listed in Table A-4 in PNL-6835, *Cyanide and Antimony Thermodynamic Database for the Aqueous Species and Solids for the EPA-MINTEQ Geochemical Code*.

Table A-4. Free Energy at 298 K° Used in the Calculation of Solubility

Ion	Free Energy (kcal/mol)
CN^-	41.2
Cd^{2+}	-18.5
Fe^{2+}	-18.8
K^+	-67.5
Na^+	-62.6
Ni^{2+}	-10.9
H_20	-49
OH^-	-37.6

Source: PNL-6835, *Cyanide and Antimony Thermodynamic Database for the Aqueous Species and Solids for the EPA-MINTEQ Geochemical Code*.

The solubility product under standard state is calculated as the equilibrium constant of the dissolution/formation reaction as follows:

$$\text{Log } K_{sp} = -\Delta Gr / (2.303 * R * T)$$

It is assumed that the cyanide soluble species would leave with the discharged supernatant from the tanks while the solids would precipitate in the tank sludges in the form of nickel ferrocyanide or sodium nickel ferrocyanide minerals. Any available cesium-137 (Cs-137) can replace one of the nickel atoms by two atoms of cesium and precipitate first as $Cs_2NiFe(CN)_6$ or replace one atom and precipitate in the form of $NaCsNiFe(CN)_6$ achieving the scavenging goal of removing Cs-137. Converting the Ci/L to molar concentration, Cs-137 was 9.51E-07 mol/L in PFeCN1 and PFeCN2 waste streams, and 5.96E-07 mol/L and 3.24E-08 mol/L in TFeCN and 1CFeCN waste streams, respectively. On a molar basis, the reduction of the soluble cyanide forms due to the precipitation as cesium complexes would be three to four orders of magnitude less than the soluble cyanide.

A3.3.3 Speciation Modeling Output

After running PHREEQC for speciation of the four waste streams, the cyanide species of concentrations >1 E-12 mol/L were extracted from the output ".pqo" files. Table A-5 provides the speciation results for the likely dissolved species while Table A-6 presents the modeled precipitants. The dissolved species in Table A-5 are further categorized as free (CN^- and HCN), weak acid dissociable (WAD), and strong acid dissociable (SAD) cyanide species based on information taken from Dzombak et al., 2006, to assist future risk assessment studies requiring the classification to free and amenable cyanide. The results are presented for the main species in each category. Precipitates are presented in Table A-6. The precipitation of cyanide and iron species is determined in the second PHREEQC simulation of each run utilizing the solubility indices evaluated from the first simulation of the same run.

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Table A-5. Cyanide Speciation Results (Soluble)

Cyanide Species	Molar Mass (g/mol)	Category	PFeCN1 (mol/L)	PFeCN1 (mg/L)	PFeCN2 (mol/L)	PFeCN2 (mg/L)	TFeCN (mol/L)	TFeCN (mg/L)	1CFeCN (mol/L)	1CFeCN (mg/L)	PFeCN1 (mol CN/L)	PFeCN1 (mg CN/L)	PFeCN2 (mol CN/L)	PFeCN2 (mg CN/L)	TFeCN (mol CN/L)	TFeCN (mg CN/L)	1CFeCN (mol CN/L)	1CFeCN (mg CN/L)
$Ni(Cyanide)_4^{-2}$	162.77	WAD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$Fe(Cyanide)_6^{-4}$	211.95	SAD	1.90E-05	4.03E+00	9.60E-06	2.03E+00	2.90E-03	6.15E+02	2.70E-03	5.72E+02	1.10E-04	2.86E+00	5.80E-05	1.51E+00	1.70E-02	4.42E+02	1.60E-02	4.16E+02
$Hg(Cyanide)_2$	252.63	WAD	1.90E-05	4.80E+00	2.00E-05	5.05E+00	1.30E-06	3.28E-01	1.50E-05	3.79E+00	3.90E-05	1.01E+00	3.90E-05	1.01E+00	2.60E-06	6.77E-02	3.00E-05	7.81E-01
HCyanide	27.02	Free	7.80E-04	2.11E+01	7.20E-04	1.95E+01	6.10E-06	1.65E-01	7.20E-06	1.95E-01	7.80E-04	2.03E+01	7.20E-04	1.87E+01	6.10E-06	1.59E-01	7.20E-06	1.87E-01
$Hg(Cyanide)_3^{-}$	278.65	WAD	8.00E-07	2.23E-01	6.90E-07	1.92E-01	9.50E-08	2.65E-02	2.40E-06	6.69E-01	2.40E-06	6.24E-02	2.10E-06	5.46E-02	2.80E-07	7.29E-03	7.30E-06	1.90E-01
$Fe(Cyanide)_6^{-3}$	211.95	SAD	2.80E-03	5.93E+02	1.30E-03	2.76E+02	1.30E-08	2.76E-03	4.80E-08	1.02E-02	1.70E-02	4.42E+02	8.00E-03	2.08E+02	8.00E-08	2.08E-03	2.90E-07	7.55E-03
$Cyanide^{-}$	26.02	Free	4.80E-07	1.25E-02	4.10E-07	1.07E-02	1.20E-06	3.12E-02	5.70E-06	1.48E-01	4.80E-07	1.25E-02	4.10E-07	1.07E-02	1.20E-06	3.12E-02	5.70E-06	1.48E-01
$NaFe(Cyanide)_6^{-3}$	234.94	SAD	1.00E-09	2.35E-04	5.40E-10	1.27E-04	3.70E-07	8.69E-02	2.50E-06	5.87E-01	6.20E-09	1.61E-04	3.20E-09	8.33E-05	2.20E-06	5.72E-02	1.50E-05	3.90E-01
$Hg(Cyanide)_4^{-2}$	252.63	WAD	5.40E-07	1.36E-01	4.00E-07	1.01E-01	8.10E-08	2.05E-02	2.10E-06	5.31E-01	2.20E-06	5.72E-02	1.60E-06	4.16E-02	3.20E-07	8.33E-03	8.40E-06	2.19E-01
$NiH(Cyanide)_4^{-}$	163.77	WAD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$KFe(Cyanide)_6^{-3}$	251.05	SAD	6.00E-12	1.51E-06	3.10E-12	7.78E-07	2.20E-09	5.52E-04	5.70E-09	1.43E-03	3.60E-11	9.37E-07	1.90E-11	4.94E-07	1.30E-08	3.38E-04	3.40E-08	8.85E-04
$K_2Fe(Cyanide)_6^{-2}$	290.15	SAD	1.50E-08	4.35E-03	7.00E-09	2.03E-03	1.20E-13	3.48E-08	5.30E-13	1.54E-07	8.70E-08	2.26E-03	4.20E-08	1.09E-03	7.20E-13	1.87E-08	3.20E-12	8.33E-08
$HgCyanide^{+}$	226.61	WAD	4.00E-14	9.06E-09	4.70E-14	1.07E-08	1.10E-15	2.49E-10	2.60E-15	5.89E-10	4.00E-14	1.04E-09	4.70E-14	1.22E-09	1.10E-15	2.86E-11	2.60E-15	6.77E-11
$NiH_2(Cyanide)_4$	164.78	WAD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Free Cyanide		(Free)	--		--		--		--		7.80E-04	2.03E+01	7.20E-04	1.87E+01	7.30E-06	1.90E-01	1.30E-05	3.38E-01
Weak metal-cyanide		(WAD)	--		--		--		--		4.30E-05	1.12E+00	4.30E-05	1.12E+00	3.20E-06	8.33E-02	4.60E-05	1.20E+00
Strong metal-cyanide		(SAD)	--		--		--		--		1.70E-02	4.42E+02	8.10E-03	2.11E+02	1.70E-02	4.42E+02	1.60E-02	4.16E+02

SAD = strong acid dissociable

WAD = weak acid dissociable

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Table A-6. Cyanide Speciation Results (Precipitates/Phase Assemblage)

Cyanide species	Category	PFeCN1 (mol/kg)	PFeCN2 (mol/kg)	TFeCN (mol/kg)	1CFeCN (mol/kg)	PFeCN1 (mol CN/kg)	PFeCN2 (mol CN/kg)	TFeCN (mol CN/kg)	1CFeCN (mol CN/kg)
$K_2NiFe(Cyanide)_6$	Solids	--	--	--	--	--	--	--	--
$Na_2NiFe(Cyanide)_6$	Solids	--	--	--	--	--	--	--	--
$Ni_2Fe(Cyanide)_6$*	Solids	3.0E-03	1.5E-03	2.9E-03	2.7E-03	1.8E-02	8.9E-03	1.7E-02	1.6E-02
Fe(OH)2.7Cl.3	Solids	3.6E-02	3.5E-02	1.9E-03	3.6E-02	--	--	--	--
Hydroxylapatite	Solids	2.9E-03	2.8E-03	5.3E-03	2.8E-03	--	--	--	--

References: HW-30399, *TBP Plant Nickel Ferrocyanide Scavenging Flowsheet*.

PNL-7822, *A Summary of Available Information on Ferrocyanide Tank Wastes*.

*This form of nickel ferrocyanide is consistent with original scavenging process flowsheets (HW-30399; PNL-7822) and consistent with the stoichiometry of estimating maximum cyanide that would occur in the supernatant and soil discharges.

A3.3.4 Discharged Cyanide Inventory Estimates

The cyanide inventory discharged to the cribs is assumed to be represented by the sum of the estimated free, WAD, and SAD species of cyanide in the waste streams. The supernatant volumes were discharged after at least 7 to 10 days retention in the tanks allowing enough time for the precipitates to settle. The discharged volume records from each waste stream were imported from SIM-v2 input as shown in Table A-7 to Table A-10. The mean discharged cyanide inventory is simply the discharge volume times the concentration of the corresponding total soluble cyanide, assuming that the density of the four scavenging waste streams were 1 (which is close to initial waste stream density of 1.023).

Table A-7. SIM-v2 Yearly Discharges from PFeCN1 Waste Stream to Cribs and Frenches

Site	Year	Volume (ML)
216-B-14	1956	3.07
216-B-29	1957	1.02
216-B-32	1956	0.28
216-B-33	1956	0.45
216-B-34	1956	0.39
216-B-42	1954	1.36
216-B-43	1954	1.92
216-B-44	1954	2.79
216-B-44	1955	2.29
216-B-45	1955	4.46
216-B-46	1955	6.08
216-B-47	1955	1.95
216-B-48	1955	3.71
216-B-49	1955	6.08
216-B-52	1957	1.49
216-BY-201	1954	0.01
216-BY-201	1955	0.03

Table A-8. SIM-v2 Yearly Discharges from PFeCN2 Waste Stream to Cribs and Trenches

Site	Year	Volume (ML)
216-B-14	1956	5.61
216-B-15	1956	4.76
216-B-15	1957	1.95
216-B-16	1956	4.15
216-B-18	1956	9.05
216-B-19	1957	2.06
216-B-20	1956	1.94
216-B-21	1956	4.25
216-B-22	1956	3.08
216-B-23	1956	2.89
216-B-24	1956	5.17
216-B-25	1956	5.22
216-B-26	1956	2.17
216-B-26	1957	2.87
216-B-27	1957	4.69
216-B-28	1957	3.53
216-B-29	1957	3.94
216-B-30	1957	1.37
216-B-31	1957	1.44
216-B-32	1957	0.87
216-B-47	1955	1.63
216-B-51	1956	0.00
216-B-51	1957	0.00
216-B-51	1958	0.00

Table A-9. SIM-v2 Yearly Discharges from TFeCN Waste Stream to Cribs and Trenches

Site	Year	Volume (ML)
216-B-16	1956	1.48
216-B-17	1956	2.99
216-B-19	1957	3.86
216-B-20	1956	2.50
216-B-21	1956	0.59
216-B-22	1956	1.61
216-B-23	1956	1.58
216-B-28	1957	1.52
216-B-30	1957	3.06
216-B-31	1957	3.06
216-B-32	1957	3.18
216-B-33	1957	3.72
216-B-34	1957	3.90
216-B-52	1958	6.04

Table A-10. SIM-v2 Yearly Discharges from 1CFeCN Waste Stream

Site	Year	Volume (ML)
216-T-18	1953	0.94
216-T-26	1955	7.02
216-T-26	1956	3.16

A3.3.5 Results

The speciation modeling results are used to estimate yearly discharges of cyanide as shown in in Table A-11 (rounded to the nearest kg) that are consistent with SIM-v2. The speciation-based inventory also quantify the soluble cyanide categories of free, WAD, and SAD cyanide that would support future risk analysis quantifying free and amenable cyanide.

Table A-11. Cyanide Inventory from Speciation-Based Modeling

Site	Year	Waste Stream	Mean (ML)	Free Cyanide (kg)	WAD Cyanide (kg)	SAD Cyanide (kg)	Total Soluble Cyanide (kg)
216-B-14	1956	PFeCN1 (BT1)	3.1	62.3	3.4	1,352.4	1,418
216-B-14	1956	PFeCN2 (BT2)	5.6	105.0	6.2	1,181.7	1,293
216-B-15	1956	PFeCN2 (BT2)	4.8	89.1	5.3	1,002.6	1,097
216-B-15	1957	PFeCN2 (BT2)	2.0	36.6	2.2	411.8	450
216-B-16	1956	TFeCN (BT2)	1.5	0.3	0.1	661.1	661
216-B-16	1956	PFeCN2 (BT2)	4.2	77.7	4.6	875.1	957
216-B-17	1956	TFeCN (BT2)	3.0	0.6	0.3	1,333.9	1,335
216-B-18	1956	PFeCN2 (BT2)	9.0	169.4	10.1	1,906.8	2,086
216-B-19	1957	TFeCN (BT2)	3.9	0.7	0.3	1,725.0	1,726
216-B-19	1957	PFeCN2 (BT2)	2.1	38.6	2.3	434.2	475
216-B-20	1956	TFeCN (BT2)	2.5	0.5	0.2	1,114.8	1,115
216-B-20	1956	PFeCN2 (BT2)	1.9	36.4	2.2	409.6	448
216-B-21	1956	PFeCN2 (BT2)	4.2	79.5	4.7	895.2	979
216-B-21	1956	TFeCN (BT2)	0.6	0.1	0.0	262.1	262
216-B-22	1956	TFeCN (BT2)	1.6	0.3	0.1	719.7	720
216-B-22	1956	PFeCN2 (BT2)	3.1	57.7	3.4	649.0	710
216-B-23	1956	TFeCN (BT2)	1.6	0.3	0.1	704.1	704
216-B-23	1956	PFeCN2 (BT2)	2.9	54.1	3.2	608.7	666
216-B-24	1956	PFeCN2 (BT2)	5.2	96.8	5.7	1,089.9	1,192
216-B-25	1956	PFeCN2 (BT2)	5.2	97.6	5.8	1,098.9	1,202
216-B-26	1956	PFeCN2 (BT2)	2.2	40.6	2.4	457.0	500
216-B-26	1957	PFeCN2 (BT2)	2.9	53.8	3.2	605.6	662
216-B-27	1957	PFeCN2 (BT2)	4.7	87.9	5.2	989.2	1,082
216-B-28	1957	TFeCN (BT2)	1.5	0.3	0.1	676.7	677
216-B-28	1957	PFeCN2 (BT2)	3.5	66.0	3.9	743.0	812
216-B-29	1957	PFeCN1 (BT1)	1.0	20.6	1.1	446.8	468
216-B-29	1957	PFeCN2 (BT2)	3.9	73.8	4.4	830.3	908

Table A-11. Cyanide Inventory from Speciation-Based Modeling

Site	Year	Waste Stream	Mean (ML)	Free Cyanide (kg)	WAD Cyanide (kg)	SAD Cyanide (kg)	Total Soluble Cyanide (kg)
216-B-30	1957	TFeCN (BT2)	3.1	0.6	0.3	1,365.2	1,366
216-B-30	1957	PFeCN2 (BT2)	1.4	25.6	1.5	288.7	316
216-B-31	1957	TFeCN (BT2)	3.1	0.6	0.3	1,365.2	1,366
216-B-31	1957	PFeCN2 (BT2)	1.4	27.0	1.6	304.4	333
216-B-32	1956	PFeCN1 (BT1)	0.3	5.6	0.3	122.1	128
216-B-32	1957	TFeCN (BT2)	3.2	0.6	0.3	1,419.9	1,421
216-B-32	1957	PFeCN2 (BT2)	0.9	16.3	1.0	183.1	200
216-B-33	1956	PFeCN1 (BT1)	0.5	9.2	0.5	199.5	209
216-B-33	1957	TFeCN (BT2)	3.7	0.7	0.3	1,662.4	1,663
216-B-34	1956	PFeCN1 (BT1)	0.4	7.9	0.4	170.7	179
216-B-34	1957	TFeCN (BT2)	3.9	0.7	0.3	1,740.7	1,742
216-B-42	1954	PFeCN1 (BT1)	1.4	27.6	1.5	598.4	627
216-B-43	1954	PFeCN1 (BT1)	1.9	39.0	2.2	845.8	887
216-B-44	1954	PFeCN1 (BT1)	2.8	56.6	3.1	1,228.8	1,288
216-B-44	1955	PFeCN1 (BT1)	2.3	46.3	2.6	1,005.3	1,054
216-B-45	1955	PFeCN1 (BT1)	4.5	90.4	5.0	1,962.8	2,058
216-B-46	1955	PFeCN1 (BT1)	6.1	123.2	6.8	2,672.9	2,803
216-B-47	1955	PFeCN1 (BT1)	2.0	39.5	2.2	857.7	899
216-B-47	1955	PFeCN2 (BT2)	1.6	30.4	1.8	342.4	375
216-B-48	1955	PFeCN1 (BT1)	3.7	75.2	4.2	1,631.7	1,711
216-B-49	1955	PFeCN1 (BT1)	6.1	123.2	6.8	2,672.9	2,803
216-B-51	1956	PFeCN2 (BT2)	0.0	0.0	0.0	0.1	0.1
216-B-51	1957	PFeCN2 (BT2)	0.0	0.0	0.0	0.0	0
216-B-51	1958	PFeCN2 (BT2)	0.0	0.0	0.0	0.1	0.1
216-B-52	1957	PFeCN1 (BT1)	1.5	30.1	1.7	654.3	686
216-B-52	1958	TFeCN (BT2)	6.0	1.2	0.5	2,695.1	2,697
216-T-18	1953	1CFeCN (BT2)	0.9	0.3	1.1	395.2	397

Table A-11. Cyanide Inventory from Speciation-Based Modeling

Site	Year	Waste Stream	Mean (ML)	Free Cyanide (kg)	WAD Cyanide (kg)	SAD Cyanide (kg)	Total Soluble Cyanide (kg)
216-T-26	1955	1CFeCN (BT2)	7.0	2.4	8.4	2,943.5	2,954
216-T-26	1956	1CFeCN (BT2)	3.2	1.1	3.8	1,325.3	1,330

SAD = strong acid dissociable
WAD = weak acid dissociable

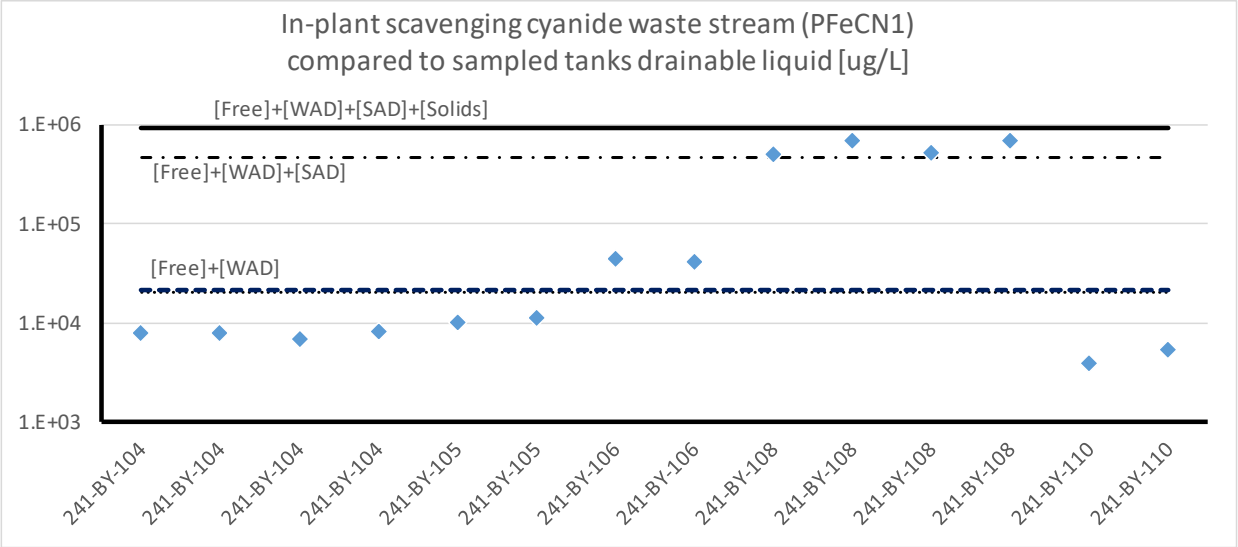
A3.4 Calculation Using Tank Sample Information

The tank sample-based estimate of cyanide inventory for the tank leaks is derived from analyzed tank sample records. In the 1990s, tanks were sampled for cyanide for safety analysis (PNNL-11211, *Ferrocyanide Safety Project-Ferrocyanide Aging Studies Final Report*)[1]. Cyanide sampling results were imported from the Tank Waste Information Network System (TWINS) database and from information presented in WMA C analysis of past tank waste leaks and losses (Appendix A in RPP-RPT-59197). However, only a limited number of sample drainable liquid records are available to approximate the liquid concentrations used to estimate the inventory for tank leaks. The representative concentrations are listed in Table A-12 with explanation of sample assumptions.

Figure A-4 compares sampling results from the 241-BY Tank Farm where tanks were used for settling and cascading the scavenging waste stream PFeCN1 from the U Plant scavenging campaign. Estimates of cyanide concentration from speciation method (discussed earlier) are also shown for qualitative comparison. Samples from the 241-BY-108 tank were between the calculated total soluble (Free + WAD + SAD) and total soluble plus solid forms. This could be explained by the fact that the analysis method applied to the 241-BY-108 samples was expanded from the spectrometric technique used for the other tank samples to also include the titrimetric technique to capture all cyanide forms.

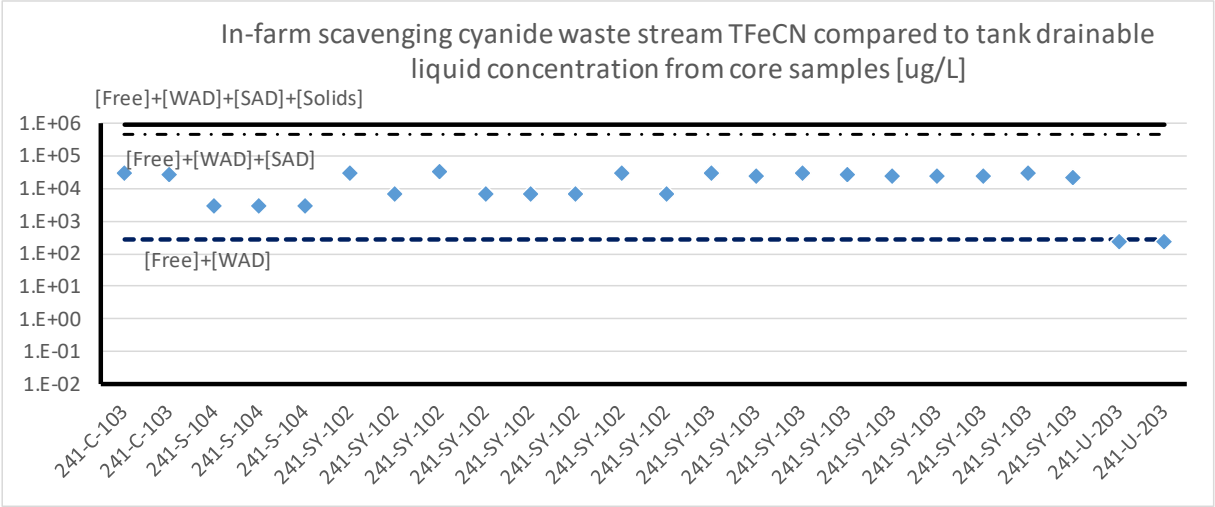
Figure A-5 shows the comparison from in-farm scavenging campaigns presented by the TFeCN and 1CFeCN waste streams. Although the scavenging waste was cascaded through the 241-C Tank Farm the cyanide content was transferred to other tank farms during subsequent waste transfer. For the cyanide sourced by the in-plant scavenging campaign, the sample results are between the Free + WAD and the Free + WAD + SAD concentrations derived from the speciation modeling.

[1] In presence of nitrate and elevated temperature there is potential for explosion of tanks with high ferrocyanide content.



Tank Waste Information Network System (TWINS) database, at http://twins.pnl.gov/twins.htm.

Figure A-4. Comparing Sampled Drainable Liquid Cyanide from TWINS Records for Tanks that Received In-Plant Scavenging Waste



Tank Waste Information Network System (TWINS) database, at http://twins.pnl.gov/twins.htm.

Figure A-5. Comparing Sampled Drainable Liquid Cyanide from TWINS Records for Tanks that Received In-Farm Scavenging Waste Directly or by Waste Transfer from the 241-C Tank Farm

The inventory estimates of the tank leaks were evaluated as the leak volume times the estimated concentration assuming the density of the leak was close to the water density (Table A-12). The leak volumes (and associated uncertainty) is presented in SIM-v2 (ECF-Hanford-17-0079).

Tank 241-BY-103 was not sampled for cyanide concentration. The highest average sample concentration from Tank 241-BY-108 was used instead as a conservative concentration to estimate the cyanide inventory in the 241-BY-103 leak as both tanks were part of the in-plant scavenging. SIM-v2 estimated 1,980 kg of nitrate from the 241-BY-103 leak, which corresponds to a nitrate to cyanide ratio of 60.

As shown in Figure A-6, tank leak cyanide was evaluated for six tank leaks where cyanide sampling data were available for drainable liquid from the corresponding tanks (241-BY-103, 241-C-104, 241-C-108, 241-C-110, 241-C-112, and 241-S-104).

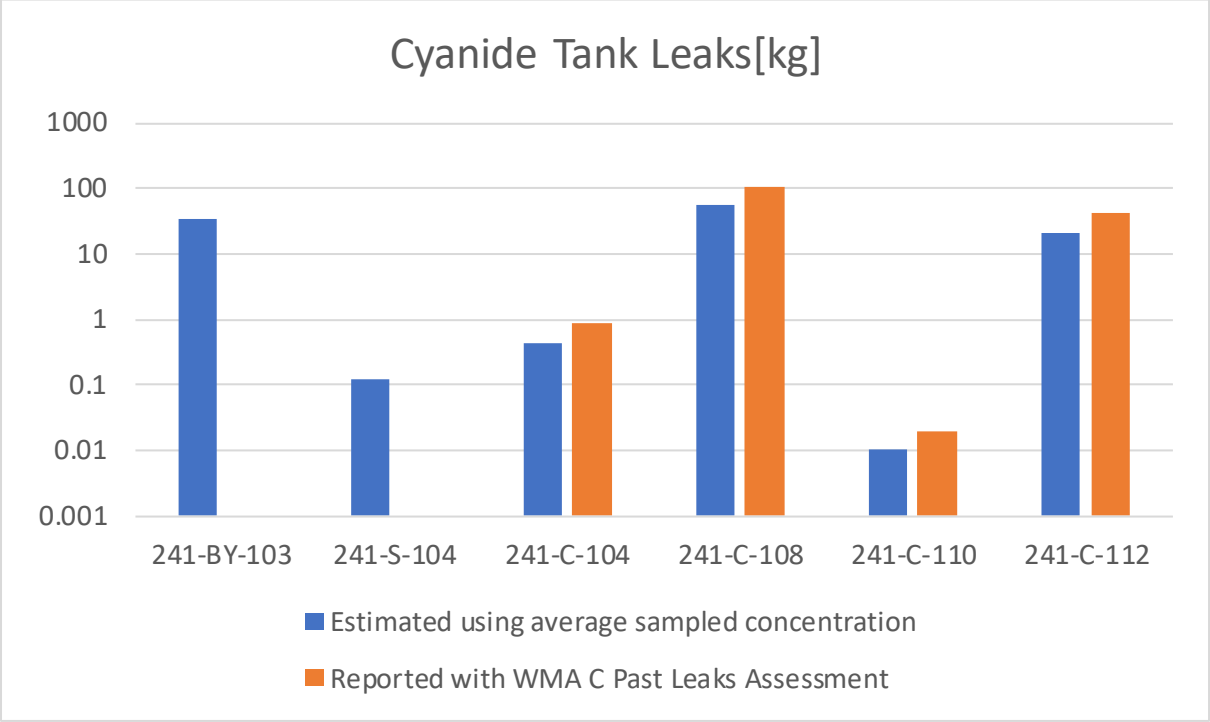


Figure A-6. Tank Leak Cyanide Inventory

Table A-12. Tank Leak Volumes and Representative Concentrations of Cyanide in Tank Drainable Liquid

Tank Leak	Average Leak Volume from SIM-v2 (kgal)	Sampled Soluble Cyanide Concentration Estimate (µg/L)	Average Inventory (kg)	Sample Assumptions for Concentration Estimate
241-BY-103	14.3	6.19E+5	33.5	Average sampled drainable liquid of Tank 241-BY-108 in TWINS
241-S-104	12	2.69E+3	0.12	The tank sampling of drainable liquid on 07/29/1992 in TWINS
241-C-104	14	8.00E+3	0.42	Using reported concentration in the analysis of past leaks and losses of WMA C (Appendix A in RPP-RPT-59197)
241-C-108	9	1.58E+6	53.83	Using reported concentration in the analysis of past leaks and losses of WMA C (Appendix A in RPP-RPT-59197)
241-C-110	1	2.63E+3	0.01	The tank sampling of drainable liquid on 01/01/1995 in TWINS, matching RPP-RPT-59197
241-C-112	3.5	1.57E+6	20.83	The tank sampling of drainable liquid on 03/22/1992 in TWINS, matching RPP-RPT-59197

Source: Tank Waste Information Network System (TWINS) database, at http://twins.pnl.gov/twins.htm.

Reference: RPP-RPT-59197, *Analysis of Past Tank Waste Leaks and Losses in the Vicinity of Waste Management Area C at the Hanford Site*.

WMA = waste management area

A3.5 Calculation Using Empirical Tank Sludge Correlation

The ferrocyanide-based scavenging operations used floating suction pumps to decant supernatant from settled sludges to the cribs. While the floating suction pumps transferred supernatants from tanks, they were also used for other transfers, such as sludge transfers between tanks. The sludge was determined to be pumpable, and the records indicate that both supernatant disposal and sludge pumping were performed using the floating suction pumps and sending some FeCN sludge to the cribs. These estimates are based on mass balance evaluation in terms of the amount of FeCN added to the tank and the amount of FeCN sludge accumulated based on measurements. If the measured sludge amounts are found to be less than estimated, then it is likely that the FeCN was discharged to the cribs or sent to other tanks. Transport of some fraction of the sludge to the cribs may explain disposed ferrocyanide inventory and their distribution. In this section, we explore the impact of such transfers to the cribs based on available information.

While there is a large variability in the amounts of FeCN tank sludge accumulations per kg-mole of FeCN addition, the available information suggests that there were correspondingly large amounts of FeCN transferred to the cribs. WHC-SD-WM-ER-133, 1991, *An Assessment of the Inventories of the Ferrocyanide*, indicates that about 623 kg-moles of $Fe(CN)_6^{4-}$ was added to the waste tanks resulting in about 2,410 kgal of sludge. The amount of sludge formed is based on combining the best estimated value of 4.25% (by volume) of 47.2 Mgal of scavenged PFeCN1, PFeCN2, and TFeCN waste with the best estimated value of 12% (by volume) of 3.3 Mgal of 1CFeCN waste. The volume percent of sludge formed was largely estimated from laboratory measurements and limited crib line samples. Based on mass balance evaluations their model indicated that about 193 kgal (or 8% of total FeCN sludge formed) was sent to cribs by direct transfer (Table 3-4 in WHC-SD-WM-ER-133).

As part of this study, the amount of sludge formed in the tanks during operations has been estimated based on records of the measured sludge levels. The Tank Layer Model (TLM) reported in LA-UR-96-3860, *Hanford Tank Chemical and Radionuclide Inventories: HDW Model Rev. 4*, provides a volumetric and chronological description of tank inventory based on HDW sludges and salt cakes. Each solid layer is attributed to a particular waste addition or process campaign. Each tank's history is summarized in a spreadsheet-based format including waste additions and removals. Also presented are the measured sludge volumes at the end of each quarter from WHC-MR-0132, *A History of the 200 Area Tank Farms*, in units of kgals along with TLM-calculated solids volume based on primary fill record or difference between solids records. The measurement-based sludge volumes (in various tanks) are considered a more reliable estimate than by WHC-SD-WM-ER-133 based on limited laboratory analyses. Based on the information presented in the TLM spreadsheet published in Appendix C of LA-UR-96-3860, it is estimated that about 1,425 kgal of sludge formed during the FeCN operations. The information regarding FeCN sludge for each of the 18 primary tanks is summarized in Table A-13.

Table A-13. Ferrocyanide Sludge Volume Estimated from Tank Layer Measurements

Primary Tank	Measured Sludge Volume (kgal)
BY-102	11
BY-104	227
BY-105	206

Table A-13. Ferrocyanide Sludge Volume Estimated from Tank Layer Measurements

Primary Tank	Measured Sludge Volume (kgal)
BY-106	111
BY-107	105
BY-108	202
BY-110	159
BY-111	26
BY-112	23
C-108	45
C-109	80
C-111	81
C-112	31
T-101	20
T-107	0
TY-101	28
TY-103	39
TY-104	29
Total	1,425 (approx.)

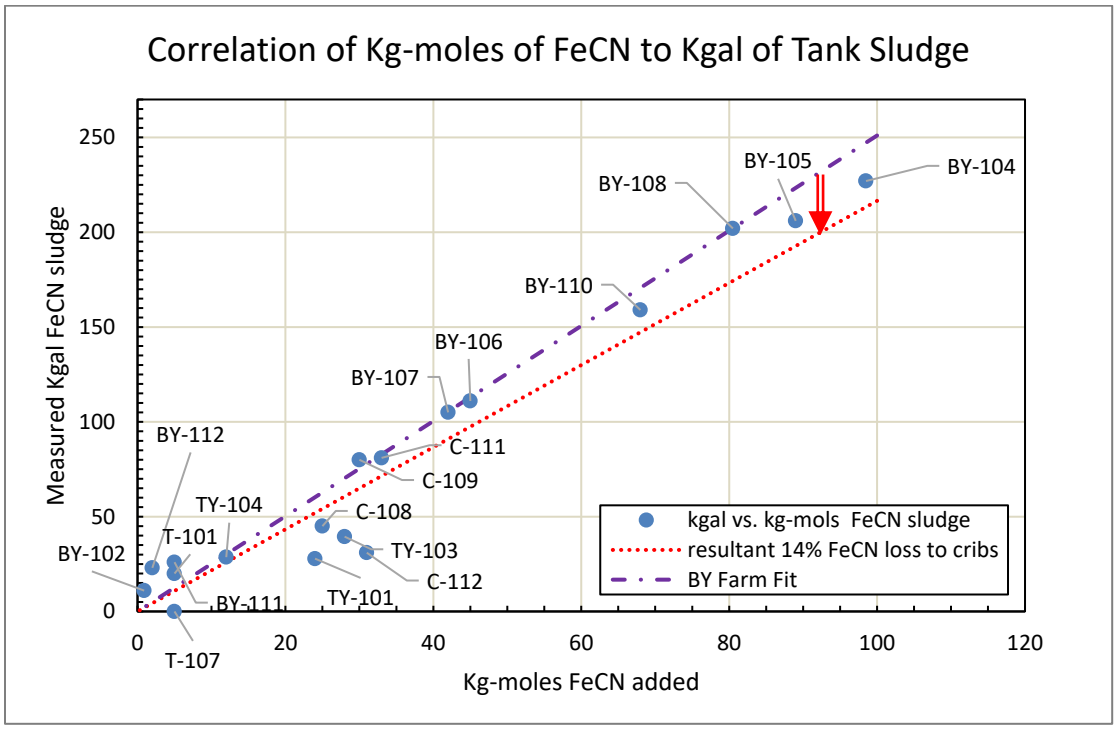
Source: Appendix C of LA-UR-96-3860, *Hanford Tank Chemical and Radionuclide Inventories: HDW Model Rev. 4.*

Because there are very good records for the process additions of FeCN during scavenging operations and there are equally good records of the measured FeCN tank sludge levels that resulted from those operations, it is possible to correlate the two datasets and derive a general relationship. Table 3-6 in WHC-SD-WM-ER-133 documented the moles of $Fe(CN)_6^{4-}$ added to each waste tank while Table A-13 (from Appendix C of LA-UR-96-3860) provides the kgal of FeCN sludge accumulated in each tank. Figure 7 presents the results graphically for all 18 tanks along with a best fit line (dashed-dotted) for the selected BY tanks (BY-106, BY-107, and BY-108) since they cover a large range of FeCN additions. The linear regression (from three BY tanks' data) results in a slope of about 2.5 kgal of FeCN sludge formed for every kg-moles FeCN added to the tank.

The regression equation (developed for three BY tanks) is used to estimate the amount of sludge formed for the tanks and compared with the measured sludge (as shown in Table A-14). For tanks where the regression model estimated sludge exceeds the measured sludge volume, it is assumed that the excess sludge is lost to the cribs. Based on this evaluation, the total amount of sludge lost is estimated to be about 195 kgal, which represents about 14% of the approximately 1,425 kgal sludge volume measured in

the tanks. The regression line based on BY tanks is further adjusted by removing 14% of the lost sludge and is shown in Figure A-7 (as dotted line). The difference between the two regression lines visually represents the amount of lost sludge volume. For tanks that fall below the lower line, it appears that process variations may have occurred that control the sludge volume. Comparing the results of the regression line for the BY tanks to the measured values for the BY tanks indicates a ±4.2% relative standard deviation It is noted that inherent uncertainty exists in the underlying datasets such as measurement errors and process upsets for which records are not available.

The TY measured sludges included 1C solids and so the measured solids were adjusted by 39%, which set TY-104 to a low FeCN loss to crib for the 1CFeCN process. This meant that the TY 1C solids were 8.2 vol% of the 1CFeCN feed process feed and about 40% of the total FeCN was then lost to TY-1 Crib. This solids amount for 1C2 waste was consistent with the HDW 14% less the 6 vol% cladding waste solids, which were not included in the 1CFeCN campaign.



Note: The regression of just four tanks suggests that 14% of FeCN went to cribs, which corresponds to the slope of the dashed red line.

Figure A-7. Measured FeCN Sludge kgal Versus kg-mol FeCN Added to Each of 18 FeCN Sludge Tanks

Table A-14. Sludge Estimation Using Regression Model

Tank	Sludge Type	Kg-moles of $Fe(CN)_6^{4-}$ (WHC-SD-WM-ER-133)	Kgal of FeCN Measured Sludge (LA-UR-96-3860)	Kgal of Sludge Predicted from Regression Equation (Based on BY Tanks)	Difference between Predicted and Measured Sludge (kgal)	Percent FeCN Sludge Sent to Cribs (Percent of Predicted)	Cribs Receiving Discharges[a]
BY-102	PFeCN1&2	0.9	11	2.3	-8.74	0.0	BC-19
BY-104	PFeCN1&2	98.5	227	247	20.24	8.2	BY-7, BC-13
BY-105	PFeCN1&2	89	206	223	17.39	7.8	
BY-106	PFeCN1&2	45	111	113	1.95	1.75	BY-3, BY-6, BC-5, BC-2, BC-8, BC-10, BC-11, BC-13
BY-107	PFeCN1&2	42	105	105	0.42	0.40	BY-2, BY-4, BY-7, BC-1, BC-5, BC-2, BC-8, BC-11, BC-14, BC-18
BY-108	PFeCN1&2	80.5	202	202	0.05	0.03	BY-2, BY-3, BY-5, BY-8, BY-4, BC-1, BC-5, BC-2, BC-9, BC-11, BC-6, BC-15
BY-110	PFeCN1&2	68	159	171	11.68	6.8	BY-1, #8D, BY-7, BC-1, BC-5, BC-7, BC-9, BC-12, BC-14, BC-17
BY-111	PFeCN1&2	5	26	13	-13.45	0.0	BC-3
BY-112	PFeCN1&2	2	23	5.0	-17.98	0.0	BC-15, BC-16
C-108	TFeCN	25	45	63	17.75	28	BC-7, BC-8, BC-20, BC-21, BC-22
C-109	TFeCN	30	80	75	-4.70	0.0	BC-4, BC-9, BC-15, BC-17, BC-6, BC-20, BC-21, BC-22
C-111	TFeCN	33	81	83	1.83	2	BC-17, BC-18, BC-20, BC-21, BC-22
C-112	TFeCN	31	31	78	46.81	60	BC-4, BC-3, BC-10, BC-13, BC-18, BC-6, BC-22, BC-21
T-101	1CFeCN	5	20	13	-7.45	0.0	
T-107	1CFeCN	5	0	13	12.55	100	
TY-101	1CFeCN	24	28	60	32.38	54	TY-1
TY-103	1CFeCN	28	39	70	30.81	44	TY-1
TY-104	1CFeCN	12	29	30	1.48	5	TY-1

Table A-14. Sludge Estimation Using Regression Model

Tank	Sludge Type	Kg-moles of $Fe(CN)_6^{4-}$ (WHC-SD-WM-ER-133)	Kgal of FeCN Measured Sludge (LA-UR-96-3860)	Kgal of Sludge Predicted from Regression Equation (Based on BY Tanks)	Difference between Predicted and Measured Sludge (kgal)	Percent FeCN Sludge Sent to Cribs (Percent of Predicted)	Cribs Receiving Discharges[a]
Total		624	1423		195[b]		BC-19

References: LA-UR-96-3860, *Hanford Tank Chemical and Radionuclide Inventories: HDW Model Rev. 4*.

WHC-SD-WM-ER-133, *An Assessment of the Inventories of the Ferrocyanide*.

a. Old Waste Information Data System names used to be consistent with WHC-SD-WM-ER-133.

b. Summing all values greater than zero.

Using the BY tanks regression equation, it is estimated that about 1,082 kgal of sludge would have formed in the BY tanks (from Table A-14) out of about 33.7 Mgal of PFeCN1 and PFeCN2 waste that was processed (Table 3-6 of WHC-SD-WM-ER-133) and sent to the BY tanks. This results in about 3.2% (by volume) of sludge formed to the waste feed volume and this estimate is lower than 4.25% used by WHC-SD-WM-ER-133.

As shown in Table A-14, the estimated volume of sludge sent to the cribs is about 195 kgal (14% of 1,423 kgal measured). While the amount sent to the cribs is small, there is considerable variability among the sludge amounts sent from various tanks to the cribs. There were also a number or tanks and cribs that received direct transfers of FeCN sludge as shown in Table A-15. In fact, the correlation adjusted the residual solids among these tanks somewhat to shift more FeCN into primary receivers with an additional 25.5 kg-moles of FeCN left in BY-108 and not transferred to BY-104, for example. This adjustment made BY-108 agree with the correlation as shown in Figure A-7.

Table A-15. Primary Sludge Losses to Crib from Tank Residuals for Primary FeCN Tanks and Their Secondary FeCN Sludge Tanks and Cribs

Primary Tanks	Total kg-mol FeCN	Residual Sludge[a] kg-mol FeCN	Residual Sludge[b] kg-mol FeCN	FeCN Sludges to Secondary Tanks and Cribs
BY-106	77	45	45	BY-104, BY-105, B-24
BY-107	124	37	42	BY-104, BY-105, BY-111, BY-112
BY-108	121	85	55	BY-104, BY-105
BY-110	124	69	68	BY-102, BY-103, BY-104, BY-105, B-14, B-23, B-31, B-49
C-109	38	30	30	B-19, B-30, B-34, B-52
C-111	44	33	33	C-108, B31, B-33, B-52
C-112	78	31	31	C-108, BY-102, B-19, B-23, B-52

Source: WHC-SD-WM-ER-133, 1991, *An Assessment of the Inventories of the Ferrocyanide*.

a. Loss to crib by tank residual reported by scavenging operations.

b. Loss to crib by calculated tank residual by model assuming constant 4.25 vol% FeCN sludge (WHC-SD-WM-ER-133).

Figure A-8 presents the distribution of cyanide amounts in each crib based on correlation derived from 14% of sludge volume (Table A-14).

WHC-SD-WM-ER-133 developed a spreadsheet-based scavenging model to estimate the sludge among tanks and cribs. The results from that model is provided in Appendix A and Tables A-1 through A-4 of that document. Detailed information on transfers from each tank is presented based on transfer records. By using this information and by applying the correlation derived from 14% loss of sludge volume, the kg-moles of $Fe(CN)_6^{4-}$ added to each crib is estimated which is then converted to kilograms of $Fe(CN)_6$ then to kg cyanide (CN^-) (Table A-16). The results are presented in Figure A-8 for visual comparisons and as kg CN^-. The calculations show that some of the BY cribs and BC cribs received large amounts of sludge while others received significantly smaller amounts showing large variations.

Table A-16. Estimated Distribution of FeCN Sludge from Tanks to Cribs Using the Correlation Method

Crib (WIDS Number)	Alias	Kg-moles of $Fe(CN)_6^{4-}$ Estimated	Kg of $Fe(CN)_6^{4-}$	Kg CN^-
216-B-14	BC-1	0.49	103	76
216-B-15	BC-2	0.11	23	17
216-B-16	BC-3	2.70	573	422
216-B-17	BC-4	2.32	493	363
216-B-18	BC-5	0.92	194	143
216-B-19	BC-6	4.76	1,010	743
216-B-20	BC-7	1.48	313	231
216-B-21	BC-8	0.74	157	116
216-B-22	BC-9	0.19	41	30
216-B-23	BC-10	2.27	481	354
216-B-24	BC-11	0.08	16	12
216-B-25	BC-12	0.39	82	61
216-B-26	BC-13	0.52	110	81
216-B-27	BC-14	0.48	101	74
216-B-28	BC-15	2.35	498	367
216-B-29	BC-16	6.94	1,471	1,083
216-B-30	BC-17	0.38	81	60
216-B-31	BC-18	0.14	30	22
216-B-32	BC-19	1.63	345	254
216-B-33	BC-20	1.42	302	222
216-B-34	BC-21	2.63	558	411
216-B-42	BX-108	0.00	0	0
216-B-43	BY-1	0.42	89	66
216-B-44	BY-2	0.03	6	4
216-B-45	BY-3	0.13	28	21
216-B-46	BY-4	0.03	6	4
216-B-47	BY-5	0.32	67	49
216-B-48	BY-6	0.10	21	16
216-B-49	BY-7	8.52	1,805	1,328
216-B-51	BY-9	0.00	0	0
216-B-52	BC-22	4.51	956	704
216-T-18		5.00	1,060	780
216-T-26	TY-1, TX-1	25.76	5,461	4,019

WIDS = Waste Information Data System

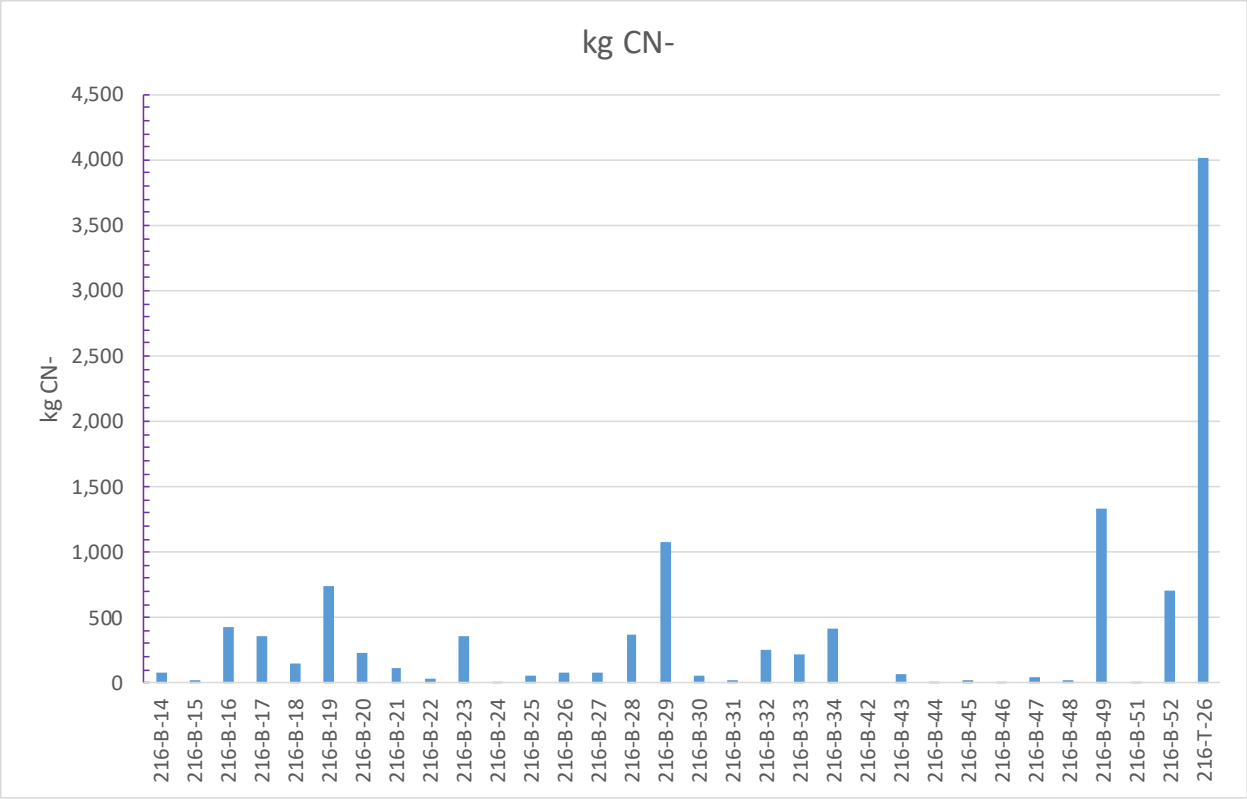


Figure A-8. Estimated Distribution of FeCN Among the Cribs Based on Estimated Sludge Volume Lost from the Tanks

Based on information presented in WHC-SD-WM-ER-133, there were five tanks that showed as little as 1% to as much as 85% of FeCN sludges being transferred to cribs, notably to all BC cribs (Table A-17). These reports represent 832 kgal of sludge remaining in the five tanks at the end of scavenging with about 193 kgal transferred to the cribs. The 193 kgal amount transferred to the cribs represents about 23% of sludge volume in the five tanks and about 8% of the total FeCN sludge in all the tanks. It indicates that scavenging operations sometimes did transfer large amounts of added FeCN to the cribs. These could have been either actual sludge transfers or may have resulted from dissolution of precipitated sludge solids due to pH changes within the tanks followed by transfer of supernatant.

Table A-17. Estimate of FeCN Sludges Transferred to Cribs

Tank	Year-Quarter	FeCN Sludge Transferred to Cribs (Kgal)	Crib Name (Old WIDS)	Crib Name (Current WIDS)	Total Sludge Volume in Tanks at the End of Scavenging (Kgal)	Percent of Total Sludge to Crib
BY-106	1956-4	3.01	BC-11	B-24	316	0.95
BY-110	1955-4	25.60	BY-7	B-49		
BY-110	1955-4	2.78	BC-1	B-14		
BY-110	1956-3	3.86	BC-10	B-23		
BY-110	1957-2	11.86	BC-18	B-31	225	19.6

Table A-17. Estimate of FeCN Sludges Transferred to Cribs

Tank	Year-Quarter	FeCN Sludge Transferred to Cribs (Kgal)	Crib Name (Old WIDS)	Crib Name (Current WIDS)	Total Sludge Volume in Tanks at the End of Scavenging (Kgal)	Percent of Total Sludge to Crib
C-109	1957-2	6.81	BC-17	B-30		
C-109	1957-3	20.97	BC-6	B-19		
C-109	1957-3	6.12	BC-21	B-34		
C-109	1957-4	2.56	BC-22	B-52	109	33.4
C-111	1957-2	11.78	BC-18	B-31		
C-111	1957-3	25.83	BC-20	B-33		
C-111	1957-3	1.07	BC-22	B-52	98	39.5
C-112	1956-3	45.49	BC-10	B-23		
C-112	1957-3	2.29	BC-6	B-19		
C-112	1957-4	23.34	BC-22	B-52	84	84.7
Total		193.35			832	23

Source: Table 3-7 in WHC-SD-WM-ER-133, *An Assessment of the Inventories of the Ferrocyanide Watchlist Tanks*.
WIDS = Waste Information Data System

The sludge transport approach has limitations due to inherent uncertainties associated with sludge measurements that relied on level measurements to estimate sludge volumes. Also, process upsets were not captured in determining the ratio of the discharged cyanide to the amounts added to the tank.

A4 Comparison of Results

Table A-18 presents a comparison of the four methods used to estimate the cyanide inventory discharged to crib/trench sites. As shown in Table A-18, the speciation modeling results provides an estimate close to WIDS records. The speciation-based estimates also provide the annual discharges consistent with SIM-v2 outputs and therefore judged as the best estimates. The estimated values are compared graphically in the following sections for BY, BC, and T cribs.

A4.1 BY Cribs

Results of inventory estimates from various calculation approaches are presented in Figure A-9 for BY cribs. Speciation-based methods are judged to provide the best estimates of cyanide in BY cribs and are similar to the inventory estimates provided in the WIDS records (DOE/RL-92-05). The minimum estimates were from Tank-Sludge-Correlation approach. The estimates are considerably lower indicating limited sludge transfer to cribs except at 216-B-49 where the estimates match those based on nitrate to cyanide groundwater ratio approach.

These results support the likely scenario that most of the cyanide was discharged as dissolved species (during discharge of supernatants from tanks to the cribs) with limited sludge transfer.

Table A-18. Comparison of Cyanide Inventory Estimates at Crib/Trench Liquid Discharge Sites Using Four Different Methods

Site	Waste Stream	Year or Total	Estimated Cyanide Inventory (kg)			
			Speciation-Based	WIDS	Nitrate/ Cyanide Ratio	Empirical Tank Sludge Correlation
216-B-14	PFeCN1 (BT1)	1956	1,418	--	--	--
	PFeCN2 (BT2)	1956	1,293	--	--	--
		Total	2,711	3,683	1,728	76
216-B-15	PFeCN2 (BT2)	1956	1,097	--	--	--
	PFeCN2 (BT2)	1957	451	--	--	--
		Total	1,548	2,431	1,338	17
216-B-16	TFeCN (BT2)	1956	661	--	--	--
	PFeCN2 (BT2)	1956	957	--	--	
		Total	1,619	2,210	1,066	422
216-B-17	TFeCN (BT2)	1956/Total	1,335	1,326	481	363
216-B-18	PFeCN2 (BT2)	1956	2,086	3,683	1,803	143
216-B-19	TFeCN (BT2)	1957	1,726	--	--	--
	PFeCN2 (BT2)	1957	475	--	--	--
		Total	2,201	2,504	1,033	743
216-B-20	TFeCN (BT2)	1956	1,115	--	--	--
	PFeCN2 (BT2)	1956	448	--	--	--
		Total	1,564	1,841	790	231
216-B-21	PFeCN2 (BT2)	1956	979	--	--	--
	TFeCN (BT2)	1956	262	--	--	--
		Total	1,242	--	941	116
216-B-22	TFeCN (BT2)	1956	720	--	--	--
	PFeCN2 (BT2)	1956	710	--	--	--
		Total	1,430	1,841	873	30
216-B-23	TFeCN (BT2)	1956	705	--	--	--
	PFeCN2 (BT2)	1956	666	--	--	--
		Total	1,371	1,768	830	354
216-B-24	PFeCN2 (BT2)	1956/Total	1,192	1,841	1,031	12
216-B-25	PFeCN2 (BT2)	1956/Total	1,202	1,473	1,039	61
216-B-26	PFeCN2 (BT2)	1956	500	--	--	--
	PFeCN2 (BT2)	1957	663	--	--	--
		Total	1,163	2,283	1,005	81
216-B-27	PFeCN2 (BT2)	1957/Total	1,082	1,694	936	74

Table A-18. Comparison of Cyanide Inventory Estimates at Crib/Trench Liquid Discharge Sites Using Four Different Methods

Site	Waste Stream	Year or Total	Estimated Cyanide Inventory (kg)			
			Speciation-Based	WIDS	Nitrate/ Cyanide Ratio	Empirical Tank Sludge Correlation
216-B-28	TFeCN (BT2)	1957	677	--	--	--
	PFeCN2 (BT2)	1957	813	--	--	--
		Total	1,490	1,989	947	367
216-B-29	PFeCN1 (BT1)	1957	469	--	--	--
	PFeCN2 (BT2)	1957	908	--	--	--
		Total	1,377	1,915	987	1,083
216-B-30	TFeCN (BT2)	1957	1,366	--	--	--
	PFeCN2 (BT2)	1957	316	--	--	--
		Total	1,682	1,841	766	60
216-B-31	TFeCN (BT2)	1957	1,366	--	--	--
	PFeCN2 (BT2)	1957	333	--	--	--
		Total	1,699	1,841	780	22
216-B-32	PFeCN1 (BT1)	1956	128	--	--	--
	TFeCN (BT2)	1957	1,421	--	--	--
	PFeCN2 (BT2)	1957	200	--	--	--
		Total	1,749	1,841	741	254
216-B-33	PFeCN1 (BT1)	1956	209	--	--	--
	TFeCN (BT2)	1957	1,663	--	--	--
		Total	1,873	1,841	690	222
216-B-34	PFeCN1 (BT1)	1956	179	--	--	--
	TFeCN (BT2)	1957	1,742	--	--	--
		Total	1,921	1,915	705	411
216-B-42	PFeCN1 (BT1)	1954/Total	628	589	270	
216-B-43	PFeCN1 (BT1)	1954/Total	887	810	382	66
216-B-44	PFeCN1 (BT1)	1954	1,289	--	--	--
	PFeCN1 (BT1)	1955	1,054	--	--	--
		Total	2,343	2,210	1,009	4
216-B-45	PFeCN1 (BT1)	1955/Total	2,058	1,915	886	21
216-B-46	PFeCN1 (BT1)	1955/Total	2,803	2,946	1,207	4
216-B-47	PFeCN1 (BT1)	1955	899	--	--	--
	PFeCN2 (BT2)	1955	375	--	--	--
		Total	1,274	1,473	711	49

Table A-18. Comparison of Cyanide Inventory Estimates at Crib/Trench Liquid Discharge Sites Using Four Different Methods

Site	Waste Stream	Year or Total	Estimated Cyanide Inventory (kg)			
			Speciation-Based	WIDS	Nitrate/ Cyanide Ratio	Empirical Tank Sludge Correlation
216-B-48	PFeCN1 (BT1)	1955/Total	1,711	1,620	737	16
216-B-49	PFeCN1 (BT1)	1955/Total	2,803	2,946	1,207	1,328
216-B-51	PFeCN2 (BT2)	1956	0	--	--	--
	PFeCN2 (BT2)	1957	0	--	--	--
	PFeCN2 (BT2)	1958	0	--	--	--
		Total	0	0	0	0
216-B-52	PFeCN1 (BT1)	1957	686	--	--	--
	TFeCN (BT2)	1958	2,697	--	--	--
		Total	3,383	3,683	1,268	704
216-BY-201	PFeCN1 (BT1)	1954	2	--	--	--
	PFeCN1 (BT1)	1955	15	--	--	--
		Total	17	NR	0	1
216-T-18	1CFeCN (BT2)	1953/Total	397	NR	32	780
216-T-26	1CFeCN (BT2)	1955	2,954	--	--	--
	1CFeCN (BT2)	1956	1,330	--	--	--
		Total	4,284	--	--	--

WIDS = Waste Information Data System

A4.2 BC Cribs and Trenches

Results of inventory estimates from various calculation approaches are presented in Figure A-10 for BC cribs. Speciation modeling-based estimates are generally lower than WIDS records but higher than those estimated using the groundwater nitrate to cyanide ratio of 1,000. The estimated inventory by using tank sludge correlation approach gave a minimum estimate except for site 216-B-29. Given that BC cribs received discharges from both U Plant and in-farm scavenging campaigns, it is possible that it received cyanide in both dissolved phase (supernatant discharges) and as sludge transfers.

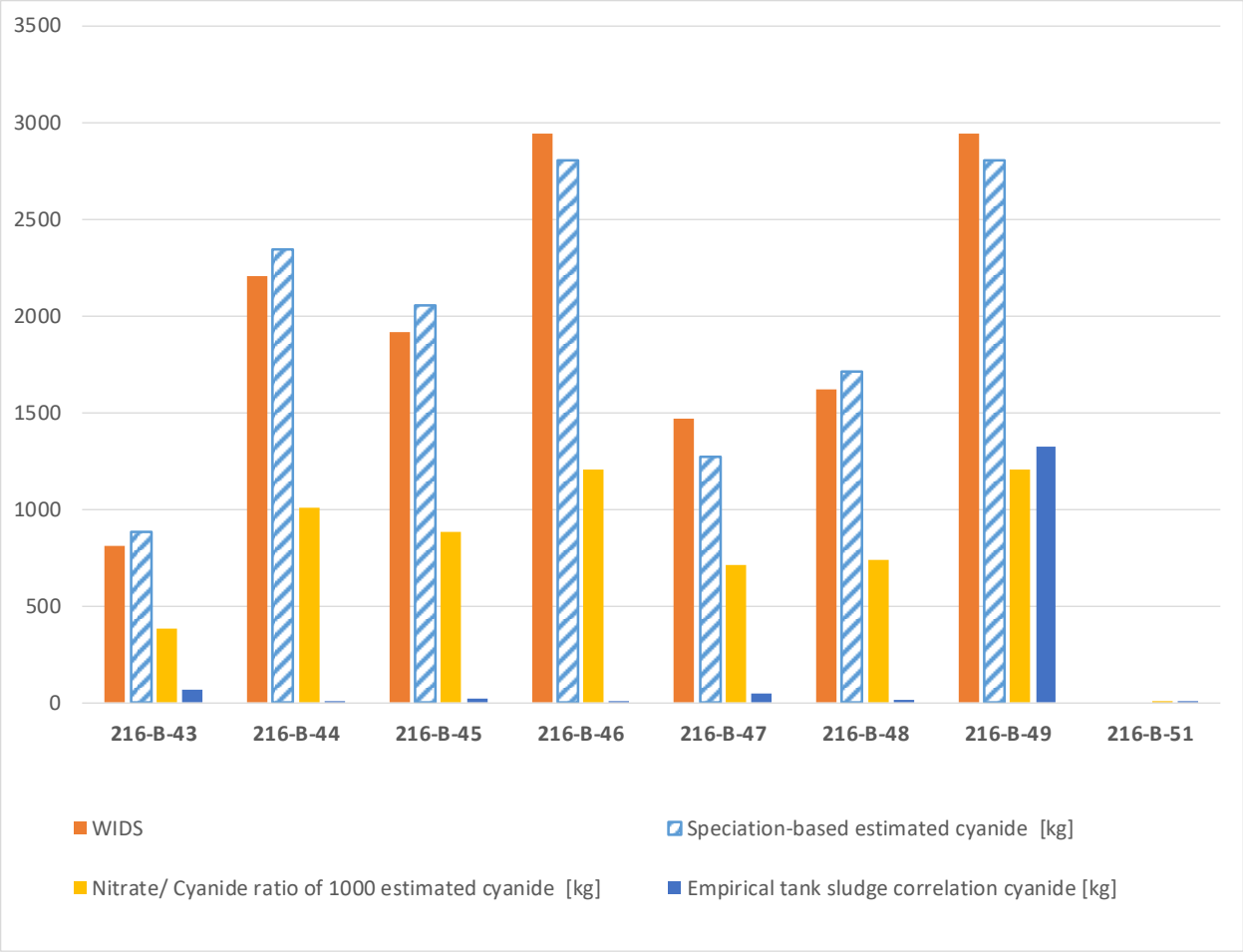


Figure A-9. Comparison of Cyanide Inventory Estimates in BY Cribs

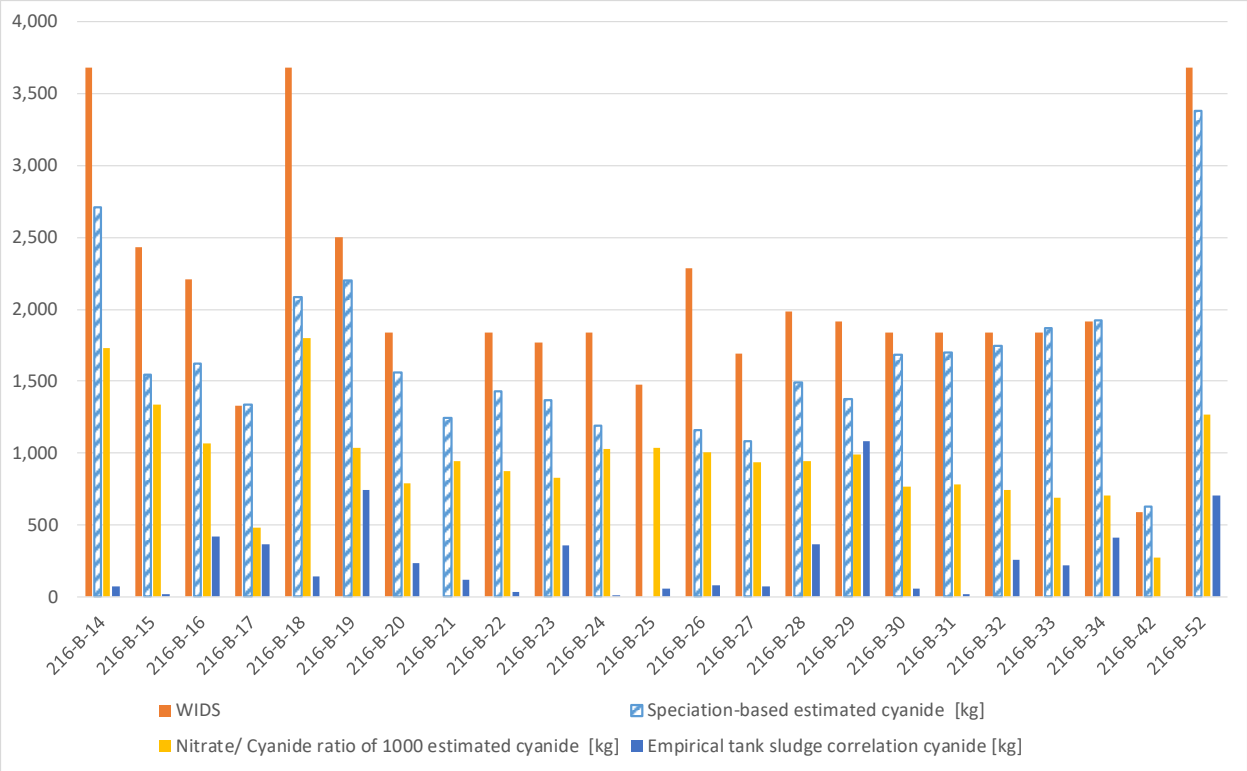


Figure A-10. Comparison of Cyanide Inventory Estimates in BC Cribs

A4.3 T Cribs

Two cribs (216-T-18 and 216-T-26) received T Plant scavenging waste. Figure A-11 shows the T trenches' cyanide inventory estimates. The speciation-based estimates are comparable with the estimates by the Tank-Sludge-Correlation. The minimum estimates are based on using the nitrate to cyanide ratio of 1,000.

A5 Conclusions

Table A-18 summarizes the estimates of disposed cyanide inventory and shows that the different approaches are within a factor of two or three of each other. In addition, the comparison indicates that the speciation-based method provides estimates consistent with WIDS at the upper bound of the inventory range. The low values represented by the empirical tank sludge correlation or the nitrate/cyanide ratio methods provide the lower bound. In addition, the speciation-based method provides the yearly discharges that are consistent with SIM-v2 output.

Although cyanide is not prevalent in groundwater under the BC cribs, the inventory estimates show maximum inventory was discharged to the BC cribs. Best estimate cyanide inventory (using speciation-based approach) indicates total of 37.5 metric tons were discharged to BC cribs, 13.8 metric tons were discharged to BY cribs and 4.7 tons were discharged to T cribs. The estimated average cyanide inventory discharged from tank leaks is about 110 kg, which is a fraction of the inventory discharged at the BC, BY, and T cribs.

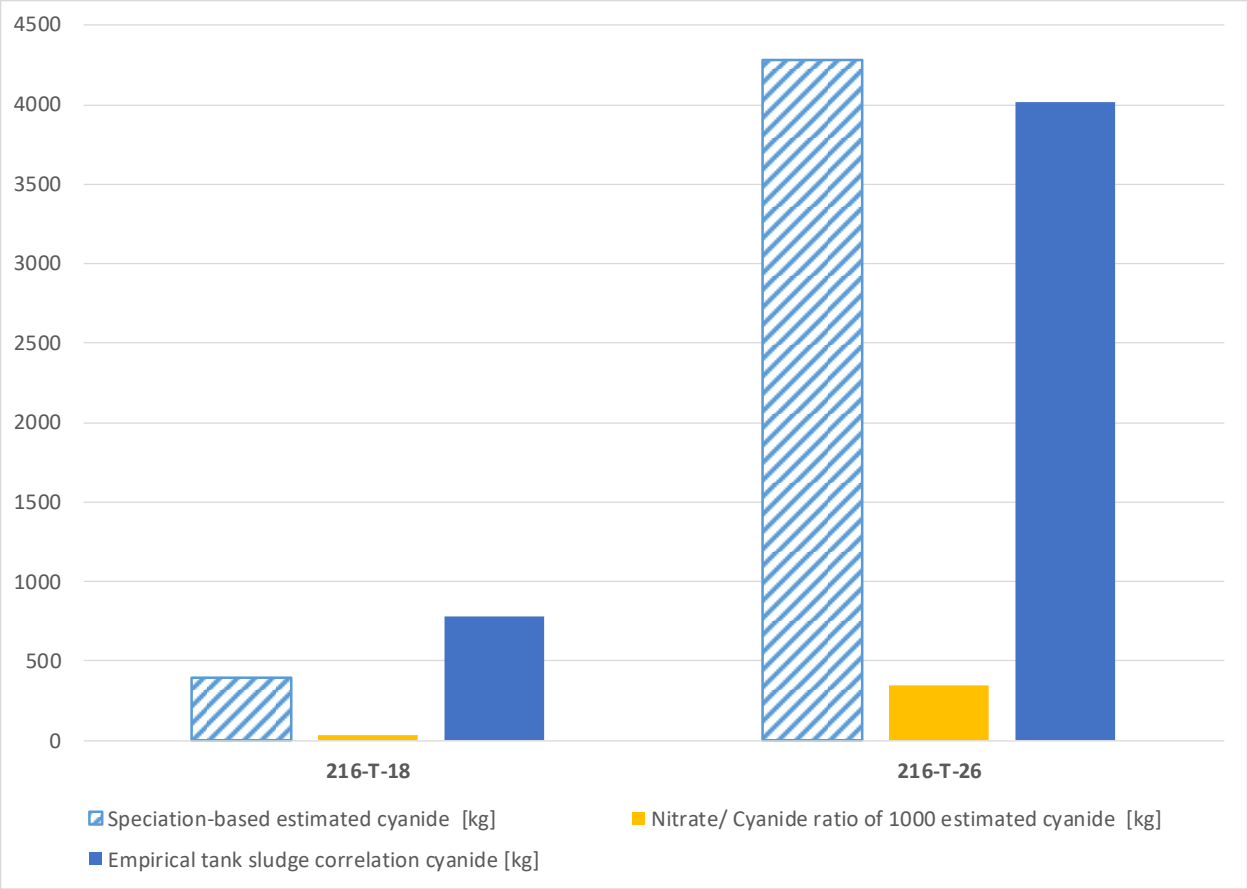


Figure A-11. T Cribs Cyanide Estimates

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Appendix B

Mean Chemical Inventory from SIM-v2 Estimates

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OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-CB-1	200-E-100	2.37E-01	4.29E-01	1.57E-05	7.15E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.12E-03	2.20E-05	3.59E-09	1.02E-03	0.00E+00	3.83E+00	1.51E-01	1.17E-01	2.43E-04	1.53E+01	1.28E-03	2.10E+00	5.01E-01	2.76E-02	1.78E-01	0.00E+00	2.95E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-EA-1	200-E-103	4.00E-03	2.87E-03	8.64E-07	1.82E-04	1.04E-04	0.00E+00	0.00E+00	1.99E-11	3.26E-10	1.04E-08	8.69E-05	3.98E-12	1.52E-09	0.00E+00	7.96E-02	1.47E+00	1.20E+00	2.02E-06	8.76E-07	5.70E-01	2.76E-01	2.11E-08	2.23E-03	2.95E-03	0.00E+00	4.38E-08	0.00E+00	0.00E+00	1.84E-07	5.60E-09
200-CP-1	200-E-107	4.00E-03	1.80E+01	0.00E+00	4.19E-01	1.67E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.28E-01	0.00E+00	0.00E+00	0.00E+00	1.44E+00	1.08E-01	3.89E+01	4.42E+00	4.73E-01	0.00E+00	1.54E+00	0.00E+00	0.00E+00	4.50E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-09
200-EA-1	200-E-25	7.39E-02	2.88E-02	0.00E+00	3.55E-03	0.00E+00	0.00E+00	0.00E+00	6.27E-04	0.00E+00	1.08E-03	0.00E+00	0.00E+00	5.23E-04	0.00E+00	4.10E-01	6.75E-03	6.70E-02	0.00E+00	0.00E+00	0.00E+00	5.39E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.56E-03	0.00E+00	2.75E-05
200-CB-1	200-E-28	5.86E-01	2.40E-01	0.00E+00	2.81E-02	0.00E+00	0.00E+00	0.00E+00	4.97E-03	0.00E+00	8.58E-03	0.00E+00	0.00E+00	4.14E-03	0.00E+00	3.25E+00	5.35E-02	5.31E-01	0.00E+00	0.00E+00	0.00E+00	4.27E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.20E-02	0.00E+00	2.18E-04
200-EA-1	200-E-4	1.75E-02	3.77E-02	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-04	0.00E+00	0.00E+00	5.43E-04	0.00E+00	3.49E-01	1.27E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	1.88E-02	0.00E+00	0.00E+00	0.00E+00	2.30E-02	0.00E+00	1.07E-05
200-EA-1	200-E-41	2.20E-02	4.31E-02	1.60E-06	7.26E-04	3.15E-06	8.29E-07	3.40E-10	9.25E-10	5.46E-08	1.14E-04	9.52E-07	1.54E-10	1.04E-04	0.00E+00	3.89E-01	1.54E-02	1.10E-02	1.39E-05	1.55E+00	5.46E-05	2.13E-01	5.09E-02	2.76E-03	1.81E-02	0.00E+00	3.00E-13	0.00E+00	0.00E+00	3.46E-06	2.59E-06
200-EA-1	200-E-54	2.01E-01	1.44E-01	4.33E-05	9.12E-03	5.21E-03	0.00E+00	0.00E+00	1.00E-09	1.63E-08	5.22E-07	4.36E-03	1.99E-10	7.60E-08	0.00E+00	3.99E+00	7.38E+01	6.04E+01	1.01E-04	4.39E-05	2.86E+01	1.38E+01	1.06E-06	1.12E-01	1.48E-01	0.00E+00	2.20E-06	0.00E+00	0.00E+00	9.22E-06	2.81E-07
200-CB-1	200-E-55	2.31E-01	3.56E-01	0.00E+00	1.01E-02	1.91E-03	5.46E-04	2.24E-07	1.67E-03	3.60E-05	2.88E-03	6.16E-04	1.01E-07	1.44E-03	0.00E+00	1.09E+00	3.36E-02	6.04E-01	5.15E-03	6.62E-02	3.60E-02	1.82E-01	1.07E-03	2.00E-02	5.82E-03	0.00E+00	0.00E+00	0.00E+00	1.74E-02	2.24E-03	1.78E-03
200-EA-1	200-E-56	7.55E-02	3.85E+03	0.00E+00	2.03E+02	3.01E+01	0.00E+00	0.00E+00	2.45E-02	0.00E+00	3.43E+01	1.77E+01	0.00E+00	0.00E+00	0.00E+00	1.48E+01	2.62E+02	3.74E+03	1.01E+03	2.22E+01	0.00E+00	4.89E+02	0.00E+00	0.00E+00	1.32E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.64E+00	2.34E+00
200-EA-1	200-E-57	1.13E-01	5.77E+03	0.00E+00	3.05E+02	4.51E+01	0.00E+00	0.00E+00	3.67E-02	0.00E+00	5.15E+01	2.66E+01	0.00E+00	0.00E+00	0.00E+00	2.23E+01	3.93E+02	5.60E+03	1.52E+03	3.33E+01	0.00E+00	7.34E+02	0.00E+00	0.00E+00	1.97E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.95E+00	3.51E+00
WMA-B-BX-BY	200-E-60	5.20E-03	2.34E+01	0.00E+00	5.45E-01	2.17E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-01	0.00E+00	0.00E+00	0.00E+00	1.87E+00	1.40E-01	5.06E+01	5.75E+00	6.14E-01	0.00E+00	2.00E+00	0.00E+00	0.00E+00	5.85E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.88E-09
200-CP-1	200-E-62	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-63	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-64	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-65	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-67	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-EA-1	200-E-68	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-69	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-70	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-71	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-72	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-73	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-74	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-75	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-76	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-77	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-78	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-79	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-80	1.84E-01	3.96E-01	0.00E+00	8.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	7.83E-01	1.34E-01	9.92E-02	0.00E+00	1.39E+01	0.00E+00	1.95E+00	4.63E-01	2.51E-02	1.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-03
200-CP-1	200-E-81	4.56E-01	3.27E-01	9.85E-05	2.07E-02	1.18E-02	0.00E+00	0.00E+00	2.27E-09	3.71E-08	1.19E-06	9.90E-03	4.53E-10	1.73E-07	0.00E+00	9.07E+00	1.68E+02	1.37E+02	2.30E-04	9.98E-05	6.49E+01	3.14E+01	2.41E-06	2.55E-01	3.37E-01	0.00E+00	4.99E-06	0.00E+00	0.00E+00	2.09E-05	6.38E-07
200-EA-1	200-E-82	1.88E-01	4.05E-01	0.00E+00	9.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	8.02E-01	1.37E-01	1.02E-01	0.00E+00	1.43E+01	0.00E+00	2.00E+00	4.74E-01	2.57E-02	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-03
200-CP-1	200-E-84	2.53E-01	5.45E-01	0.00E+00	1.22E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E-03	0.00E+00	1.08E+00	1.85E-01	1.37E-01	0.00E+00	1.92E+01	0.00E+00	2.69E+00	6.37E-01	3.45E-02	2.69E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-02
200-CB-1	200-E-85	1.43E+00	1.02E+00	3.08E-04	6.48E-02	3.70E-02	0.00E+00	0.00E+00	7.11E-09	1.16E-07	3.71E-06	3.10E-02	1.42E-09	5.40E-07	0.00E+00	2.84E+01	5.24E+02	4.29E+02	7.20E-04	3.12E-04	2.03E+02	9.84E+01	7.53E-06	7.96E-01	1.05E+00	0.00E+00	1.56E-05	0.00E+00	0.00E+00	6.55E-05	2.00E-06
200-CB-1	200-E-88	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-CB-1	200-E-89	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-CB-1	200-E-90	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-CB-1	200-E-91	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-CB-1	200-E-92	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-CB-1	200-E-93	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-EA-1	200-E-94	2.32E-01	4.20E-01	1.53E-05	6.99E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.09E-03	2.20E-05	3.59E-09	9.97E-04	0.00E+00	3.74E+00	1.48E-01	1.15E-01	2.42E-04	1.49E+01	1.28E-03	2.05E+00	4.90E-01	2.70E-02	1.74E-01	0.00E+00	2.89E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-EA-1	200-E-95	2.19E-01	3.57E-01	0.00E+00	9.49E-03	1.95E-03	5.58E-04	2.29E-07	1.56E-03	3.67E-05	2.69E-03	6.29E-04	1.03E-07	1.35E-03	0.00E+00	1.02E+00	3.28E-02	6.01E-01	5.26E-03	6.77E-02	3.67E-02	1.73E-01	1.09E-03	2.04E-02	5.94E-03	0.00E+00	0.00E+00	0.00E+00	1.63E-02	2.29E-03	1.81E-03
200-CB-1	200-E-97	2.32E-01	3.63E-01	0.00E+00	1.01E-02	1.95E-03	5.58E-04	2.29E-07	1.67E-03	3.67E-05	2.89E-03	6.29E-04	1.03E-07	1.44E-03	0.00E+00	1.10E+00	3.40E-02	6.13E-01	5.26E-03	6.77E-02	3.67E-02	1.83E-01	1.09E-03	2.04E-02	5.94E-03	0.00E+00	0.00E+00	0.00E+00	1.75E-02	2.29E-03	1.82E-03
200-CB-1	200-E-98	1.92E-01	3.02E-01	0.00E+00	8.36E-03	1.63E-03	4.65E-04	1.91E-07	1.38E-03	3.06E-05	2.38E-03	5.24E-04	8.61E-08	1.19E-03	0.00E+00	9.04E-01	2.82E-02	5.10E-01	4.39E-03	5.64E-02	3.06E-02	1.51E-01	9.09E-04	1.70E-02	4.95E-03	0.00E+00	0.00E+00	0.00E+00	1.44E-02	1.90E-03	1.51E-03
200-CB-1	200-E-99	2.37E-01	4.29E-01	1.57E-05	7.15E-03	7.02E-05	1.94E-05	7.94E-09	2.09E-08	1.28E-06	1.12E-03	2.20E-05	3.59E-09	1.02E-03	0.00E+00	3.83E+00	1.51E-01	1.17E-01	2.43E-04	1.53E+01	1.28E-03	2.10E+00	5.01E-01	2.76E-02	1.78E-01	0.00E+00	2.95E-12	0.00E+00	0.00E+00	7.99E-05	6.05E-05
200-WA-1	200-W-22	3.20E-05	7.19E-04	0.00E+00	3.70E-06	3.47E-06	0.00E+00	0.00E+00	1.18E-07	0.00E+00	0.00E+00	1.77E-06	0.00E+00	2.89E-07	0.00E+00	6.33E-04	3.92E-01	4.88E-01	0.00E+00	0.00E+00	8.54E-03	0.00E+00	0.00E+00	7.93E-04	0.00E+00	0.00E+00	1.61E-07	0.00E+00	0.00E+00	1.61E-07	2.77E-02
200-WA-1	200-W-42	1.11E-02	2.51E-01	0.00E+00	1.29E-03	1.21E-03	0.00E+00	0.00E+00	2.35E-05	0.00E+00	0.00E+00	6.17E-04	0.00E+00	1.01E-04	0.00E+00	2.21E-01	1.37E+02	1.70E+02	0.00E+00	0.00E+00	2.98E+00	0.00E+00	0.00E+00	2.75E-01	0.00E+00	0.00E+00	5.61E-05	0.00E+00	0.00E+00	5.61E-05	4.60E-04
200-WA-1	200-W-9	1.36E-01	6.11E+02	0.00E+00	1.42E+01	5.66E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+01	0.00E+00	0.00E+00	0.00E+00	4.90E+01	3.67E+00	1.32E+03	1.50E+02	1.61E+01	0.00E+00	5.23E+01	0.00E+00	0.00E+00	1.53E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.76E-03
200-WA-1	200-W-PP	3.41E+03	0.00E+00	9.50E-01	9.70E-01	3.44E-02	0.00E+00	0.00E+00	3.44E-04	0.00E+00	1.03E-01	3.44E-02	0.00E+00	5.85E-02	0.00E+00	6.39E+01	3.20E+00	1.72E+03	0.00E+00	0.00E+00	4.47E+03	9.95E+04	0.00E+00	1.72E+03	1.02E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200-OA-1	2101-M-Pond	1.11E+03	2.39E+03	0.00E+00	1.21E+02	4.30E+02	0.00E+00	0.00E+00	1.72E+01	0.00E+00	4.30E+02	0.00E+00	0.00E+00	7.84E+00	0.00E+00	1.56E+04	8.45E+02	6.34E+02	0.00E+00	3.03E+04	0.00E+00	1.40E+04	2.33E+03	1.43E+02	3.45E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E+01
200-EA-1	216-A-1	9.84E-02	1.67E+03	0.00E+00	6.68E+01	4.13E+01	0.00E+00	0.00E+00	1.17E-01	0.00E+00	2.29E+00	1.28E+01	0.00E+00	0.00E+00	0.00E+00	2.49E+01	1.22E+01	1.07E+03	1.26E+03	3.72E+01	0.00E+00	4.17E+02	4.71E+01	0.00E+00	5.08E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E+01	1.37E+02
200-EA-1	216-A-10	3.16E+03	3.03E+04	0.00E+00	3.32E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+00	0.00E+00	9.96E+02	1.71E+02	1.92E+06	0.00E+00	1.77E+04	0.00E+00	1.90E+04	5.88E+02	3.19E+01	2.96E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E+02
200-CP-1	216-A-11	1.00E-01	2.15E-01	0.00E+00	4.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-04	0.00E+00	4.26E-01	7.30E-02	5.39E-02	0.00E+00	7.57E+00	0.00E+00	1.06E+00	2.51E-01	1.36E-02	1.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-03
200-CP-1	216-A-12	1.00E-01	2.15E-01	0.00E+00	4.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-04	0.00E+00	4.26E-01	7.30E-02	5.39E-02	0.00E+00	7.57E+00	0.00E+00	1.06E+00	2.51E-01	1.36E-02	1.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-03
200-CP-1	216-A-13	1.00E-02	7.18E-03	2.16E-06	4.55E-04	2.60E-04	0.00E+00	0.00E+00	4.99E-11	8.15E-10	2.61E-08	2.17E-04	9.95E-12	3.79E-09	0.00E+00	1.99E-01	3.68E+00	3.01E+00	5.05E-06	2.19E-06	1.43E+00	6.91E-01	5.29E-08	5.59E-03	7.39E-03	0.00E+00	1.10E-07	0.00E+00	0.00E+00	4.60E-07	1.40E-08
200-CP-1	216-A-14	1.00E-03	7.17E-04	2.16E-07	4.54E-05	2.59E-05	0.00E+00	0.00E+00	4.98E-12	8.14E-11	2.60E-09	2.17E-05	9.94E-13	3.79E-10	0.00E+00	1.99E-02	3.67E-01	3.01E-01	5.04E-07	2.19E-07	1.42E-01	6.90E-02	5.28E-09	5.58E-04	7.38E-04	0.00E+00	1.09E-08	0.00E+00	0.00E+00	4.59E-08	1.40E-09
200-EA-1	216-A-15	1.00E+01	2.15E+01	0.00E+00	4.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-02	0.00E+00	4.26E+01	7.30E+00	5.39E+00	0.00E+00	7.57E+02	0.00E+00	1.06E+02	2.51E+01	1.36E+00	1.06E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-01
WMA-A-AX	216-A-16	1.22E-01	8.75E-02	2.63E-05	5.54E-03	3.17E-03	0.00E+00	0.00E+00	6.08E-10	9.93E-09	3.18E-07	2.65E-03	1.21E-10	4.62E-08	0.00E+00	2.43E+00	4.49E+01	3.67E+01	6.16E-05	2.67E-05	1.74E+01	8.42E+00	6.44E-07	6.81E-02	9.01E-02	0.00E+00	1.34E-06	0.00E+00	0.00E+00	5.60E-06	1.71E-07
WMA-A-AX	216-A-17	6.00E-02	4.30E-02	1.30E-05	2.73E-03	1.56E-03	0.00E+00	0.00E+00	2.99E-10	4.89E-09	1.56E-07	1.30E-03	5.96E-11	2.27E-08	0.00E+00	1.19E+00	2.21E+01	1.81E+01	3.03E-05	1.31E-05	8.54E+00	4.14E+00	3.17E-07	3.35E-02	4.43E-02	0.00E+00	6.57E-07	0.00E+00	0.00E+00	2.76E-06	8.40E-08
200-EA-1	216-A-18	4.88E-01	8.26E+03	0.00E+00	3.31E+02	2.05E+02	0.00E+00	0.00E+00	5.82E-01	0.00E+00	1.14E+01	6.35E+01	0.00E+00	0.00E+00	0.00E+00	1.23E+02	6.04E+01	5.30E+03	6.24E+03	1.85E+02	0.00E+00	2.07E+03	2.33E+02	0.00E+00	2.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.47E+01	6.82E+02
200-EA-1	216-A-19	1.10E+00	2.92E+04	0.00E+00	1.84E+04	4.99E+02	0.00E+00	0.00E+00	2.80E+01	0.00E+00	2.77E+01	8.51E+02	0.00E+00	0.00E+00	0.00E+00	3.42E+03	1.47E+02	1.20E+04	1.59E+04	5.12E+03	0.00E+00	5.04E+03	6.12E+03	0.00E+00	6.14E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.71E+02	4.34E+04
200-EA-1	216-A-2	2.30E-01	5.97E+00	0.00E+00	6.05E-02	4.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.00E-04	0.00E+00	0.00E+00	0.00E+00	1.36E-01	0.00E+00	2.37E+03	0.00E+00	2.04E-01	0.00E+00	2.44E+00	1.06E-01	0.00E+00	1.85E-01	0.00E+00	0.00E+00	1.49E+05	6.39E+04	5.16E-02	2.28E+02
200-EA-1	216-A-20	9.61E-01	2.40E+03	0.00E+00	2.72E+02	5.70E+01	0.00E+00	0.00E+00	4.35E-01	0.00E+00	3.17E+00	2.48E+01	0.00E+00	1.19E-02	0.00E+00	8.24E+01	1.75E+01	1.47E+03	1.74E+03	9.94E+01	0.00E+00	5.84E+02	1.24E+02	1.07E-01	7.11E+01	0.00E+00	1.04E+00	0.00E+00	0.00E+00	2.38E+01	6.19E+02
200-EA-1	216-A-21	7.79E+01	1.07E+05	0.00E+00	8.16E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E+00	0.00E+00	0.00E+00	2.81E+04	6.10E+02	3.20E+05	0.00E+00	2.24E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.63E+04	1.95E+02
200-EA-1	216-A-22	9.99E-03	1.77E-01	0.00E+00	9.98E-04	8.31E-04	0.00E+00	0.00E+00	2.46E-05	0.00E+00	0.00E+00	4.23E-04	0.00E+00	8.38E-05	0.00E+00	1.62E-01	9.39E+01	1.17E+02	0.00E+00	1.77E-01	2.05E+00	2.48E-02	5.88E-03	1.90E-01	2.48E-03	0.00E+00	3.85E-05	0.00E+00	0.00E+00	3.85E-05	4.60E+00
WMA-A-AX	216-A-23A	2.99E-03	6.58E-03	7.79E-04	1.29E-03	0.00E+00	0.00E+00	0.00E+00	3.27E-05	0.00E+00	8.20E-04	0.00E+00	0.00E+00	1.08E-04	0.00E+00	5.82E-02	4.09E-03	1.61E-03	0.00E+00	0.00E+00	0.00E+00	3.20E-02	7.50E-03	4.06E-04	2.89E-03	0.00E+00	3.74E-03	0.00E+00	0.00E+00	0.00E+00	7.26E-07
WMA-A-AX	216-A-23B	2.99E-03	6.58E-03	7.79E-04	1.29E-03	0.00E+00	0.00E+00	0.00E+00	3.27E-05	0.00E+00	8.20E-04	0.00E+00	0.00E+00	1.08E-04	0.00E+00	5.82E-02	4.09E-03	1.61E-03	0.00E+00	0.00E+00	0.00E+00	3.20E-02	7.50E-03	4.06E-04	2.89E-03	0.00E+00	3.74E-03	0.00E+00	0.00E+00	0.00E+00	7.26E-07
200-PW-3	216-A-24	8.21E+02	1.83E+03	3.77E+01	1.20E+02	6.50E-04	0.00E+00	0.00E+00	1.65E+00	0.00E+00	4.31E+01	9.85E-05	0.00E+00	1.49E+01	0.00E+00	1.60E+04	7.19E+02	6.54E+02	0.00E+00	2.87E-02	0.00E+00	8.75E+03	2.07E+03	1.08E+02	8.91E+02	0.00E+00	1.03E+03	2.14E+04	9.19E+03	2.65E-02	6.50E+01
200-CW-1	216-A-25	2.94E+05	5.81E+05	7.35E+00	1.32E+04	4.59E+00	7.08E-05	0.00E+00	8.80E-01	9.37E-06	9.37E+01	1.35E+00	4.80E-03	1.74E+03	0.00E+00	1.41E+06	1.98E+05	1.58E+05	2.86E+02	1.98E+07	3.14E+04	3.56E+06	6.79E+05	4.88E+04	3.57E+05	2.20E+03	1.05E+04	0.00E+00	0.00E+00	5.28E+00	1.22E+04
200-EA-1	216-A-26	3.86E-03	2.77E-03	8.34E-07	1.75E-04	1.00E-04	0.00E+00	0.00E+00	1.92E-11	3.14E-10	1.00E-08	8.38E-05	3.84E-12	1.46E-09	0.00E+00	7.68E-02	1.42E+00	1.16E+00	1.95E-06	8.45E-07	5.50E-01	2.66E-01	2.04E-08	2.16E-03	2.85E-03	0.00E+00	4.23E-08	0.00E+00	0.00E+00	1.77E-07	5.40E-09
200-EA-1	216-A-26A	1.00E-03	7.18E-04	2.16E-07	4.55E-05	2.60E-05	0.00E+00	0.00E+00	4.99E-12	8.15E-11	2.61E-09	2.17E-05	9.95E-13	3.79E-10	0.00E+00	1.99E-02	3.68E-01	3.01E-01	5.05E-07	2.19E-07	1.43E-01	6.91E-02	5.29E-09	5.59E-04	7.39E-04	0.00E+00	1.10E-08	0.00E+00	0.00E+00	4.60E-08	1.40E-09
200-EA-1	216-A-27	2.32E+01	1.89E+03	5.00E-03	6.87E+01	1.08E+01	0.00E+00	0.00E+00	1.15E-07	1.89E-06	6.03E-05	5.44E+00	2.12E-01	8.77E-06	0.00E+00	4.75E+02	8.52E+03	1.13E+04	2.38E+01	2.14E+01	3.50E+03	1.73E+03	1.22E-04	1.29E+01	7.58E+01	0.00E+00	2.54E-04	0.00E+00	0.00E+00	2.31E-03	6.51E+01
200-EA-1	216-A-28	3.00E-02	6.74E-01	0.00E+00	3.47E-03	3.25E-03	0.00E+00	0.00E+00	1.11E-04	0.00E+00	0.00E+00	1.66E-03	0.00E+00	2.71E-04	0.00E+00	5.93E-01	3.67E+02	4.58E+02	0.00E+00	0.00E+00	8.01E+00	0.00E+00	0.00E+00	7.44E-01	0.00E+00	0.00E+00	1.51E-04	0.00E+00	0.00E+00	1.51E-04	6.57E+02
200-EA-1	216-A-3	3.05E+00	7.00E+01	0.00E+00	3.54E-01	3.39E-01	0.00E+00	0.00E+00	1.13E-02	0.00E+00	0.00E+00	1.70E-01	7.45E-07	2.75E-02	0.00E+00	6.03E+01	3.73E+04	4.65E+04	1.96E-02	4.50E-03	8.14E+02	1.09E-01	0.00E+00	7.56E+01	4.84E-02	0.00E+00	1.53E-02	0.00E+00	0.00E+00	1.53E-02	2.64E+03
200-EA-1	216-A-30	7.64E+03	8.12E+04	1.52E+01	1.89E+03	6.05E+03	0.00E+00	0.00E+00	7.35E-03	1.70E-05	3.68E-01	1.63E+03	2.08E-07	4.68E+01	0.00E+00	4.20E+04	8.27E+04	2.08E+05	1.60E+04	5.58E+05	2.98E+04	9.87E+04	1.86E+04	1.13E+03	9.68E+03	0.00E+00	2.29E-03	0.00E+00	0.00E+00	9.62E-03	6.56E+02

OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-PW-3	216-A-31	3.05E-02	1.26E+00	0.00E+00	7.87E-03	6.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.10E-05	0.00E+00	0.00E+00	0.00E+00	1.77E-02	0.00E+00	1.85E+02	0.00E+00	2.65E-02	0.00E+00	8.95E-01	1.38E-02	0.00E+00	4.38E-02	0.00E+00	0.00E+00	1.98E+04	8.49E+03	2.45E-02	5.97E+01
200-CP-1	216-A-32	4.00E-03	2.87E-03	8.65E-07	1.82E-04	1.04E-04	0.00E+00	0.00E+00	2.00E-11	3.26E-10	1.04E-08	8.69E-05	3.98E-12	1.52E-09	0.00E+00	7.97E-02	1.47E+00	1.21E+00	2.02E-06	8.76E-07	5.70E-01	2.76E-01	2.11E-08	2.24E-03	2.96E-03	0.00E+00	4.39E-08	0.00E+00	0.00E+00	1.84E-07	5.60E-09
200-CP-1	216-A-35	1.00E-02	7.17E-03	2.16E-06	4.55E-04	2.60E-04	0.00E+00	0.00E+00	4.98E-11	8.14E-10	2.60E-08	2.17E-04	9.94E-12	3.79E-09	0.00E+00	1.99E-01	3.68E+00	3.01E+00	5.05E-06	2.19E-06	1.42E+00	6.90E-01	5.28E-08	5.59E-03	7.38E-03	0.00E+00	1.10E-07	0.00E+00	0.00E+00	4.59E-07	1.40E-08
200-EA-1	216-A-36A	1.07E+00	1.47E+03	0.00E+00	1.12E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-02	0.00E+00	0.00E+00	3.85E+02	8.36E+00	4.39E+03	0.00E+00	3.07E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.49E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.09E+02	1.45E+02
200-EA-1	216-A-36B	3.15E+02	4.35E+05	0.00E+00	3.30E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.98E+00	0.00E+00	0.00E+00	1.14E+05	2.47E+03	1.30E+06	0.00E+00	9.05E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E+05	1.22E+02
200-EA-1	216-A-37-1	3.68E+02	8.20E+02	0.00E+00	3.12E+01	0.00E+00	0.00E+00	0.00E+00	3.87E-02	0.00E+00	1.86E+00	0.00E+00	0.00E+00	5.30E+00	0.00E+00	7.17E+03	2.84E+02	2.05E+02	0.00E+00	0.00E+00	0.00E+00	3.92E+03	9.30E+02	4.79E+01	4.09E+02	6.68E+01	4.65E+02	0.00E+00	0.00E+00	0.00E+00	1.93E-01
200-EA-1	216-A-37-2	1.10E+03	2.37E+03	0.00E+00	5.66E+01	0.00E+00	0.00E+00	0.00E+00	1.16E-02	0.00E+00	5.55E-01	0.00E+00	0.00E+00	7.73E+00	0.00E+00	6.34E+03	8.04E+02	5.93E+02	0.00E+00	7.47E+04	0.00E+00	1.16E+04	2.76E+03	1.49E+02	1.17E+03	0.00E+00	1.39E+02	0.00E+00	0.00E+00	0.00E+00	4.76E+01
WMA-A-AX	216-A-39	2.00E-05	5.40E-01	0.00E+00	2.09E-03	8.47E-03	0.00E+00	0.00E+00	6.49E-06	0.00E+00	2.98E-03	2.14E-03	6.67E-07	0.00E+00	0.00E+00	3.01E-03	4.49E-03	1.49E-01	5.66E-01	4.50E-03	0.00E+00	2.38E-01	5.92E-03	0.00E+00	1.87E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-02	6.20E-04
200-EA-1	216-A-4	6.21E+00	4.52E+02	0.00E+00	1.20E+01	2.37E+00	0.00E+00	0.00E+00	2.29E-02	0.00E+00	0.00E+00	1.17E+00	3.53E-02	5.60E-02	0.00E+00	1.25E+02	7.60E+04	9.54E+04	3.97E+00	3.57E+00	1.69E+03	2.19E+01	0.00E+00	1.54E+02	9.78E+00	0.00E+00	3.11E-02	0.00E+00	0.00E+00	3.13E-02	5.39E+03
200-EA-1	216-A-40	9.46E-01	1.97E+00	7.36E-05	3.34E-02	1.17E-05	7.52E-09	0.00E+00	2.32E-09	9.95E-10	5.25E-03	7.83E-07	0.00E+00	4.78E-03	0.00E+00	1.80E+01	7.08E-01	4.78E-01	2.83E-04	7.17E+01	4.40E-06	9.84E+00	2.35E+00	1.26E-01	8.36E-01	0.00E+00	1.39E-11	0.00E+00	0.00E+00	2.98E-06	2.22E-07
200-EA-1	216-A-41	1.00E-02	3.43E-02	1.54E-06	3.56E-03	1.86E-04	0.00E+00	0.00E+00	3.56E-11	5.82E-10	1.86E-08	1.55E-04	7.11E-12	2.71E-09	0.00E+00	1.42E-01	2.63E+00	4.03E+00	3.61E-06	1.57E-06	1.02E+00	5.09E-01	3.78E-08	3.99E-03	2.94E-01	0.00E+00	7.83E-08	0.00E+00	0.00E+00	3.28E-07	3.40E-04
200-EA-1	216-A-45	1.03E+02	1.67E+03	6.76E-05	6.51E+01	5.45E+00	6.90E-09	0.00E+00	1.06E-01	9.13E-10	4.82E-03	2.78E+00	0.00E+00	4.59E-01	0.00E+00	1.01E+03	6.16E+05	8.00E+05	2.60E-04	6.57E+01	1.34E+04	3.05E+02	2.16E+00	1.24E+03	5.29E+03	0.00E+00	2.52E-01	0.00E+00	0.00E+00	2.52E-01	7.81E+00
200-EA-1	216-A-5	1.63E+03	1.66E+04	0.00E+00	1.85E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E+06	0.00E+00	0.00E+00	0.00E+00	9.21E+03	0.00E+00	0.00E+00	1.65E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E+02
200-EA-1	216-A-6	3.36E+03	6.20E+04	5.60E+00	1.54E+03	5.00E+03	0.00E+00	0.00E+00	2.71E-03	2.77E-06	1.36E-01	1.29E+03	3.38E-08	2.02E+01	0.00E+00	1.90E+04	1.51E+04	2.02E+05	1.33E+04	2.42E+05	4.84E+03	4.16E+04	8.05E+03	4.56E+02	1.60E+04	0.00E+00	3.72E-04	0.00E+00	0.00E+00	1.56E-03	1.70E+02
200-PW-3	216-A-7	3.27E-01	1.03E+01	0.00E+00	7.02E-02	4.83E-03	0.00E+00	0.00E+00	8.49E-06	0.00E+00	4.08E-04	7.33E-04	0.00E+00	1.16E-03	0.00E+00	1.72E+00	6.23E-02	1.49E+03	0.00E+00	2.13E-01	0.00E+00	8.07E+00	3.16E-01	1.05E-02	4.42E-01	0.00E+00	1.02E-01	1.60E+05	6.84E+04	1.97E-01	4.81E+02
200-PW-3	216-A-8	1.15E+03	2.55E+03	1.07E+02	2.37E+02	3.90E-03	0.00E+00	0.00E+00	4.54E+00	0.00E+00	1.16E+02	5.91E-04	0.00E+00	2.49E+01	0.00E+00	2.14E+04	1.13E+03	1.83E+03	0.00E+00	4.98E+03	0.00E+00	1.23E+04	2.90E+03	1.52E+02	1.22E+03	0.00E+00	1.36E+03	1.29E+05	5.51E+04	1.59E-01	3.91E+02
200-EA-1	216-A-9	9.81E+02	2.52E+03	7.77E+00	7.23E+01	6.72E+00	0.00E+00	0.00E+00	3.26E-02	0.00E+00	1.76E+00	4.29E+02	0.00E+00	8.73E+00	0.00E+00	9.48E+03	7.45E+02	6.90E+02	1.03E+01	5.21E+04	2.98E+02	1.05E+04	2.52E+03	1.33E+02	1.09E+03	0.00E+00	3.60E+02	0.00E+00	0.00E+00	3.74E+01	1.88E+03
200-EA-1	216-B-10A	9.98E+00	5.30E+02	0.00E+00	1.06E+01	4.22E+01	1.57E-01	6.45E-05	1.85E-04	1.04E-02	0.00E+00	1.09E+01	2.91E-05	1.42E-02	0.00E+00	3.64E+01	6.84E+01	1.17E+03	1.12E+02	3.09E+01	1.17E+01	4.94E+01	3.08E-01	5.88E+00	1.29E+01	0.00E+00	2.51E-05	0.00E+00	0.00E+00	6.44E-01	4.83E+00
200-EA-1	216-B-10B	2.80E-02	1.26E+02	0.00E+00	2.93E+00	1.17E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E+01	7.56E-01	2.72E+02	3.09E+01	3.31E+00	0.00E+00	1.08E+01	0.00E+00	0.00E+00	3.15E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-08
200-DV-1	216-B-11A&B	2.96E+01	1.24E+02	5.68E-01	1.53E+00	4.72E-01	9.63E-02	0.00E+00	2.52E-01	2.49E-02	4.34E-01	1.07E-01	0.00E+00	2.09E-01	0.00E+00	1.65E+02	3.58E+00	2.45E+02	8.53E+00	9.17E+00	6.73E+00	3.35E+01	2.97E-01	3.60E+00	4.33E+00	0.00E+00	6.08E-04	0.00E+00	2.72E+00	1.59E+00	4.21E-02
200-EA-1	216-B-12	5.20E+02	1.40E+04	1.91E+01	1.71E+02	5.61E+02	3.24E+00	0.00E+00	2.01E+00	8.39E-01	3.54E+00	1.59E+02	0.00E+00	3.75E+00	0.00E+00	8.00E+03	2.29E+06	2.86E+06	1.68E+03	1.17E+04	5.01E+04	2.56E+03	3.77E+02	4.74E+03	4.18E+02	0.00E+00	9.57E-01	0.00E+00	1.71E+01	5.44E+01	1.51E+04
200-CB-1	216-B-13	2.10E-02	4.88E-02	0.00E+00	8.55E-04	2.93E-04	8.35E-05	3.43E-08	1.34E-04	5.51E-06	2.31E-04	9.43E-05	1.55E-08	1.19E-04	0.00E+00	8.76E-02	3.83E-03	7.94E-02	7.89E-04	1.01E-02	5.50E-03	1.73E-02	1.63E-04	3.06E-03	8.90E-04	0.00E+00	0.00E+00	0.00E+00	1.40E-03	3.42E-04	2.67E-04
200-BC-1	216-B-14	8.71E+00	7.74E+05	0.00E+00	9.09E+02	1.49E+03	3.32E+02	0.00E+00	2.71E+00	0.00E+00	0.00E+00	8.93E+02	5.38E+00	0.00E+00	0.00E+00	1.25E+03	5.58E+03	1.73E+06	4.61E+02	1.88E+03	5.81E+04	1.01E+05	2.47E+03	3.44E+04	2.33E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.13E-03	2.69E+02
200-BC-1	216-B-15	6.32E+00	6.06E+05	0.00E+00	7.03E+02	1.15E+03	2.57E+02	0.00E+00	2.09E+00	0.00E+00	0.00E+00	6.91E+02	6.43E+00	0.00E+00	0.00E+00	9.70E+02	4.32E+03	1.34E+06	2.10E+02	1.45E+03	4.49E+04	7.78E+04	1.91E+03	2.66E+04	1.80E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.51E-04	2.08E+02
200-BC-1	216-B-16	5.64E+00	4.93E+05	4.57E+02	5.69E+02	1.06E+03	2.35E+02	0.00E+00	1.67E+00	9.77E+00	1.95E+00	5.79E+02	3.98E+00	0.00E+00	0.00E+00	8.14E+02	3.51E+03	1.07E+06	8.08E+03	9.25E+03	3.63E+04	6.40E+04	1.39E+03	1.91E+04	1.54E+04	0.00E+00	1.62E+00	0.00E+00	0.00E+00	6.32E+02	1.74E+02
200-BC-1	216-B-17	3.48E+00	2.39E+05	9.22E+02	2.71E+02	7.02E+02	1.54E+02	0.00E+00	7.48E-01	1.97E+01	3.94E+00	3.07E+02	1.56E-03	0.00E+00	0.00E+00	4.31E+02	1.70E+03	4.81E+05	1.60E+04	1.68E+04	1.72E+04	3.20E+04	4.11E+02	5.24E+03	8.52E+03	0.00E+00	3.27E+00	0.00E+00	0.00E+00	1.27E+03	9.08E+01
200-BC-1	216-B-18	8.52E+00	8.16E+05	0.00E+00	9.48E+02	1.56E+03	3.47E+02	0.00E+00	2.82E+00	0.00E+00	0.00E+00	9.31E+02	8.67E+00	0.00E+00	0.00E+00	1.31E+03	5.82E+03	1.80E+06	2.84E+02	1.96E+03	6.06E+04	1.05E+05	2.57E+03	3.59E+04	2.43E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	2.81E+02
200-BC-1	216-B-19	5.53E+00	4.95E+05	1.19E+03	5.66E+02	1.26E+03	2.78E+02	0.00E+00	1.61E+00	2.55E+01	5.10E+00	6.09E+02	1.98E+00	0.00E+00	0.00E+00	8.56E+02	3.52E+03	1.03E+06	2.08E+04	2.22E+04	3.60E+04	6.53E+04	1.12E+03	1.49E+04	1.65E+04	0.00E+00	4.23E+00	0.00E+00	0.00E+00	1.65E+03	1.81E+02
200-BC-1	216-B-20	4.74E+00	3.76E+05	7.72E+02	4.63E+02	9.21E+02	2.03E+02	0.00E+00	1.28E+00	1.65E+01	3.29E+00	4.81E+02	7.10E+00	0.00E+00	4.70E+01	6.72E+02	2.67E+03	7.90E+05	1.36E+04	1.46E+04	2.75E+04	4.94E+04	9.07E+02	1.21E+04	1.23E+04	0.00E+00	2.74E+00	0.00E+00	0.00E+00	1.07E+03	1.41E+02
200-BC-1	216-B-21	4.68E+00	4.30E+05	1.81E+02	4.98E+02	8.69E+02	1.93E+02	0.00E+00	1.47E+00	3.87E+00	7.74E-01	4.97E+02	4.07E+00	0.00E+00	0.00E+00	6.99E+02	3.07E+03	9.41E+05	3.29E+03	4.23E+03	3.18E+04	5.56E+04	1.29E+03	1.79E+04	1.31E+04	0.00E+00	6.43E-01	0.00E+00	0.00E+00	2.50E+02	1.50E+02
200-BC-1	216-B-22	4.78E+00	4.07E+05	4.98E+02	4.69E+02	9.09E+02	2.01E+02	0.00E+00	1.36E+00	1.06E+01	2.13E+00	4.83E+02	2.95E+00	0.00E+00	0.00E+00	6.78E+02	2.90E+03	8.73E+05	8.75E+03	9.76E+03	2.99E+04	5.30E+04	1.10E+03	1.50E+04	1.29E+04	0.00E+00	1.77E+00	0.00E+00	0.00E+00	6.88E+02	1.45E+02
200-BC-1	216-B-23	4.56E+00	3.87E+05	4.87E+02	4.46E+02	8.68E+02	1.92E+02	0.00E+00	1.30E+00	1.04E+01	2.08E+00	4.59E+02	2.77E+00	0.00E+00	0.00E+00	6.45E+02	2.76E+03	8.30E+05	8.56E+03	9.52E+03	2.84E+04	5.04E+04	1.04E+03	1.42E+04	1.22E+04	0.00E+00	1.73E+00	0.00E+00	0.00E+00	6.73E+02	1.38E+02
200-BC-1	216-B-24	4.87E+00	4.67E+05	0.00E+00	5.42E+02	8.90E+02	1.98E+02	0.00E+00	1.61E+00	0.00E+00	0.00E+00	5.32E+02	4.96E+00	0.00E+00	0.00E+00	7.47E+02	3.33E+03	1.03E+06	1.62E+02	1.12E+03	3.46E+04	6.00E+04	1.47E+03	2.05E+04	1.39E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.56E-04	1.60E+02
200-BC-1	216-B-25	4.91E+00	4.71E+05	0.00E+00	5.46E+02	8.97E+02	2.00E+02	0.00E+00	1.63E+00	0.00E+00	0.00E+00	5.36E+02	5.00E+00	0.00E+00	0.00E+00	7.53E+02	3.35E+03	1.04E+06	1.63E+02	1.13E+03	3.49E+04	6.05E+04	1.48E+03	2.07E+04	1.40E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.61E-04	1.62E+02
200-BC-1	216-B-26	4.75E+00	4.55E+05	0.00E+00	5.95E+02	8.68E+02	1.93E+02	0.00E+00	1.70E+00	0.00E+00	0.00E+00	5.31E+02	1.84E+01	0.00E+00	2.63E+01	7.52E+02	3.24E+03	1.00E+06	2.04E+02	1.13E+03	3.40E+04	5.87E+04	1.46E+03	2.00E+04	1.35E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-01	1.69E+02
200-BC-1	216-B-27	4.42E+00	4.24E+05	0.00E+00	4.92E+02	8.08E+02	1.80E+02	0.00E+00	1.46E+00	0.00E+00	0.00E+00	4.83E+02	4.50E+00	0.00E+00	0.00E+00	6.78E+02	3.02E+03	9.36E+05	1.47E+02	1.02E+03	3.14E+04	5.44E+04	1.34E+03	1.86E+04	1.26E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.95E-04	1.46E+02
200-BC-1	216-B-28	5.09E+00	4.40E+05	4.68E+02	5.07E+02	9.63E+02	2.13E+02	0.00E+00	1.48E+00	1.00E+01	2.00E+00	5.19E+02	3.38E+00	0.00E+00	0.00E+00	7.28E+02	3.13E+03	9.47E+05	8.25E+03	9.31E+03	3.23E+04	5.71E+04	1.21E+03	1.66E+04	1.38E+04	0.00E+00	1.66E+00	0.00E+00	0.00E+00	6.47E+02	1.55E+02
200-BC-1	216-B-29	4.84E+00	4.44E+05	0.00E+00	5.19E+02	8.53E+02	1.90E+02	0.00E+00	1.55E+00	0.00E+00	0.00E+00	5.10E+02	3.78E+00	0.00E+00	0.00E+00	7.16E+02	3.19E+03	9.87E+05	2.18E+02	1.07E+03	3.32E+04	5.75E+04	1.41E+03	1.96E+04	1.33E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03	1.54E+02
200-CW-1	216-B-3	2.83E+05	5.23E+05	1.04E+04	2.18E+04	1.41E+03	1.81E+01	7.42E-03	2.79E+02	1.19E+00	5.88E+03	2.49E+02	2.56E+02	2.26E+03	0.00E+00	3.84E+06	3.63E+05	2.92E+05	2.07E+02	1.37E+07	9.84E+04	3.31E+06	6.04E+05	4.61E+04	3.30E+05	4.68E+03	4.26E+04	0.00E+00	3.75E+04	7.46E+01	2.79E+03
200-BC-1	216-B-30	4.78E+00	3.69E+05	9.44E+02	4.21E+02	9.54E+02	2.10E+02	0.00E+00	1.19E+00	2.02E+01	4.03E+00	4.55E+02	1.31E+00	0.00E+00	0.00E+00	6.40E+02	2.62E+03	7.66E+05	1.65E+04	1.75E+04	2.68E+04	4.87E+04	8.11E+02	1.08E+04	1.24E+04	0.00E+00	3.35E+00	0.00E+00	0.00E+00	1.30E+03	1.35E+02
200-BC-1	216-B-31	4.85E+00	3.75E+05	9.44E+02	4.29E+02	9.67E+02	2.13E+02	0.00E+00	1.22E+00	2.02E+01	4.03E+00	4.63E+02	1.39E+00	0.00E+00	0.00E+00	6.50E+02	2.67E+03	7.80E+05	1.65E+04	1.76E+04	2.73E+04	4.95E+04	8.32E+02	1.11E+04	1.26E+04	0.00E+00	3.35E+00	0.00E+00	0.00E+00	1.30E+03	1.38E+02
200-BC-1	216-B-32	4.75E+00	3.57E+05	9.82E+02	4.08E+02	9.44E+02	2.07E+02	0.00E+00	1.15E+00	2.10E+01	4.19E+00	4.45E+02	8.35E-01	0.00E+00	0.00E+00	6.25E+02	2.55E+03	7.41E+05	1.71E+04	1.82E+04	2.60E+04	4.74E+04	7.64E+02	1.01E+04	1.21E+04	0.00E+00	3.48E+00	0.00E+00	0.00E+00	1.36E+03	1.32E+02
200-BC-1	216-B-33	4.75E+00	3.38E+05	1.15E+03	3.85E+02	9.53E+02	2.09E+02	0.00E+00	1.07E+00	2.46E+01	4.91E+00	4.29E+02	3.30E-03	0.00E+00	0.00E+00	6.03E+02	2.41E+03	6.90E+05	2.00E+04	2.11E+04	2.44E+04	4.52E+04	6.42E+02	8.32E+03	1.18E+04	0.00E+00	4.08E+00	0.00E+00	0.00E+00	1.59E+03	1.27E+02
200-BC-1	216-B-34	4.88E+00	3.46E+05	1.20E+03	3.94E+02	9.83E+02	2.15E+02	0.00E+00	1.10E+00	2.57E+01	5.14E+00	4.41E+02	3.20E-03	0.00E+00	0.00E+00	6.19E+02	2.47E+03	7.05E+05	2.10E+04	2.21E+04	2.50E+04	4.63E+04	6.47E+02	8.37E+03	1.22E+04	0.00E+00	4.27E+00	0.00E+00	0.00E+00	1.66E+03	1.31E+02
200-DV-1	216-B-35	1.06E+00	6.01E+04	2.89E+01	1.58E+02	3.81E+02	1.42E+02	0.00E+00	3.80E-01	2.86E+01	0.00E+00	1.06E+02	2.90E-01	0.00E+00	0.00E+00	1.70E+02	4.18E+02	1.14E+05	2.46E+03	2.54E+02	7.49E+03	7.53E+03	3.35E+02	3.98E+03	1.74E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E+03	3.63E+01
200-DV-1	216-B-36	1.94E+00	1.10E+05	5.30E+01	2.89E+02	6.97E+02	2.60E+02	0.00E+00	6.95E-01	5.23E+01	0.00E+00	1.94E+02	5.31E-01	0.00E+00	0.00E+00	3.11E+02	7.65E+02	2.08E+05	4.51E+03	4.65E+02	1.37E+04	1.38E+04	6.13E+02	7.28E+03	3.19E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E+03	6.65E+01
200-DV-1	216-B-37	4.32E+00	2.45E+05	1.18E+02	6.43E+02	1.55E+03	5.79E+02	0.00E+00	1.55E+00	1.16E+02	0.00E+00	4.31E+02	1.18E+00	0.00E+00	0.00E+00	6.92E+02	1.70E+03	4.64E+05	1.00E+04	1.04E+03	3.05E+04	3.07E+04	1.37E+03	1.62E+04	7.10E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E+03	1.48E+02
200-DV-1	216-B-38	1.43E+00	8.11E+04	3.90E+01	2.13E+02	5.13E+02	1.92E+02	0.00E+00	5.12E-01	3.86E+01	0.00E+00	1.43E+02	3.92E-01	0.00E+00	0.00E+00	2.29E+02	5.64E+02	1.54E+05	3.32E+03	3.43E+02	1.01E+04	1.02E+04	4.52E+02	5.37E+03	2.35E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E+03	4.90E+01
200-DV-1	216-B-39	1.54E+00	8.73E+04	4.20E+01	2.29E+02	5.53E+02	2.07E+02	0.00E+00	5.52E-01	4.15E+01	0.00E+00	1.54E+02	4.22E-01	0.00E+00	0.00E+00	2.47E+02	6.08E+02	1.65E+05	3.58E+03	3.69E+02	1.09E+04	1.09E+04	4.87E+02	5.78E+03	2.53E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E+03	5.28E+01
200-CB-1	216-B-4	1.00E-02	8.17E-02	0.00E+00	1.90E-04	5.57E-04	1.59E-04	6.53E-08	1.68E-07	1.05E-05	0.00E+00	1.80E-04	2.95E-08	1.43E-05	0.00E+00	2.73E-04	4.56E-03	1.24E-01	1.50E-03	1.93E-02	1.05E-02	1.11E-02	3.11E-04	5.83E-03	1.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.52E-04	4.97E-04
200-DV-1	216-B-40	1.64E+00	9.30E+04	4.48E+01	2.44E+02	5.89E+02	2.20E+02	0.00E+00	5.87E-01	4.42E+01	0.00E+00	1.64E+02	4.49E-01	0.00E+00	0.00E+00	2.63E+02	6.47E+02	1.76E+05	3.81E+03	3.93E+02	1.16E+04	1.16E+04	5.18E+02	6.16E+03	2.70E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E+03	5.62E+01
200-DV-1	216-B-41	1.44E+00	8.17E+04	3.93E+01	2.14E+02	5.17E+02	1.93E+02	0.00E+00	5.16E-01	3.88E+01	0.00E+00	1.44E+02	3.94E-01	0.00E+00	0.00E+00	2.31E+02	5.68E+02	1.55E+05	3.34E+03	3.45E+02	1.02E+04	1.02E+04	4.55E+02	5.41E+03	2.37E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E+03	4.94E+01
200-DV-1	216-B-42	1.50E+00	1.19E+05	0.00E+00	1.42E+02	2.34E+02	5.21E+01	0.00E+00	4.24E-01	0.00E+00	0.00E+00	1.40E+02	4.08E-03	0.00E+00	0.00E+00	1.96E+02	8.75E+02	2.70E+05	1.26E+02	2.94E+02	9.11E+03	1.58E+04	3.87E+02	5.39E+03	3.65E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-03	4.22E+01
200-DV-1	216-B-43	2.12E+00	1.68E+05	0.00E+00	2.01E+02	3.31E+02	7.36E+01	0.00E+00	5.99E-01	0.00E+00	0.00E+00	1.98E+02	5.76E-03	0.00E+00	0.00E+00	2.78E+02	1.24E+03	3.82E+05	1.78E+02	4.16E+02	1.29E+04	2.23E+04	5.47E+02	7.62E+03	5.15E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-03	5.96E+01
200-DV-1	216-B-44	5.60E+00	4.43E+05	0.00E+00	5.32E+02	8.74E+02	1.94E+02	0.00E+00	1.58E+00	0.00E+00	0.00E+00	5.22E+02	1.52E-02	0.00E+00	0.00E+00	7.34E+02	3.27E+03	1.01E+06	4.71E+02	1.10E+03	3.40E+04	5.89E+04	1.44E+03	2.01E+04	1.36E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-03	1.57E+02
200-DV-1	216-B-45	4.92E+00	3.90E+05	0.00E+00	5.31E+02	7.68E+02	1.71E+02	0.00E+00	1.50E+00	0.00E+00	0.00E+00	4.71E+02	2.08E-02	0.00E+00	4.65E+01	6.65E+02	2.87E+03	8.86E+05	4.56E+02	9.95E+02	3.01E+04	5.19E+04	1.29E+03	1.77E+04	1.20E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-01	1.49E+02
200-DV-1	216-B-46	6.70E+00	5.30E+05	0.00E+00	6.36E+02	1.05E+03	2.33E+02	0.00E+00	1.89E+00	0.00E+00	0.00E+00	6.25E+02	1.82E-02	0.00E+00	0.00E+00	8.78E+02	3.91E+03	1.21E+06	5.63E+02	1.31E+03	4.07E+04	7.04E+04	1.73E+03	2.41E+04	1.63E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.76E-03	1.88E+02
200-DV-1	216-B-47	3.68E+00	3.17E+05	0.00E+00	3.74E+02	6.15E+02	1.37E+02	0.00E+00	1.11E+00	0.00E+00	0.00E+00	3.68E+02	1.56E+00	0.00E+00	0.00E+00	5.16E+02	2.30E+03	7.11E+05	2.32E+02	7.73E+02	2.39E+04	4.14E+04	1.02E+03	1.42E+04	9.58E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	1.11E+02
200-DV-1	216-B-48	4.09E+00	3.24E+05	0.00E+00	3.88E+02	6.38E+02	1.42E+02	0.00E+00	1.16E+00	0.00E+00	0.00E+00	3.82E+02	1.11E-02	0.00E+00	0.00E+00	5.36E+02	2.39E+03	7.37E+05	3.44E+02	8.02E+02	2.48E+04	4.30E+04	1.05E+03	1.47E+04	9.94E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-03	1.15E+02
200-DV-1	216-B-49	6.70E+00	5.30E+05	0.00E+00	6.36E+02	1.05E+03	2.33E+02	0.00E+00	1.89E+00	0.00E+00	0.00E+00	6.25E+02	1.82E-02	0.00E+00	0.00E+00	8.78E+02	3.91E+03	1.21E+06	5.63E+02	1.31E+03	4.07E+04	7.04E+04	1.73E+03	2.41E+04	1.63E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.76E-03	1.88E+02
200-DV-1	216-B-5	3.21E+01	4.39E+05	0.00E+00	6.35E+03	3.84E+03	8.64E+03	3.46E+03	0.00E+00	0.00E+00	0.00E+00	1.03E+03	2.96E+00	1.93E+03	0.00E+00	5.42E+03	9.10E+04	9.61E+05	4.94E+00	8.20E+03	4.21E+04	9.05E+03	3.83E+02	5.70E+04	1.16E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.07E-06	1.05E+01
200-DV-1	216-B-50	5.47E+01	1.56E+02	1.56E+01	2.55E+00	1.48E+01	1.12E-02	8.08E-08	7.85E-01	6.38E-04	5.94E-01	3.53E-02	2.65E+00	2.01E-01	0.00E+00	7.22E+02	2.39E+01	1.10E+02	3.87E+01	1.04E+01	1.96E+00	4.20E+02	5.98E+01	7.58E+00	1.06E+02	0.00E+00	5.60E-01	0.00E+00	3.90E+02	3.01E-01	2.88E-02
200-EA-1	216-B-51	1.03E-03	9.58E+01	0.00E+00	1.11E-01	1.83E-01	4.07E-02	0.00E+00	3.31E-04	0.00E+00	0.00E+00	1.09E-01	1.02E-03	0.00E+00	0.00E+00	1.53E-01	6.83E-01	2.12E+02	3.33E-02	2.30E-01	7.11E+00	1.23E+01	3.02E-01	4.21E+00	2.85E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-07	3.29E-02
200-BC-1	216-B-52	8.55E+00	6.13E+05	1.86E+03	7.03E+02	1.67E+03	3.67E+02	0.00E+00	1.97E+00	3.98E+01	7.96E+00	7.74E+02	7.61E-03	0.00E+00	0.00E+00	1.09E+03	4.39E+03	1.27E+06	3.26E+04	3.44E+04	4.47E+04	8.20E+04	1.25E+03	1.65E+04	2.12E+04	0.00E+00	6.61E+00	0.00E+00	0.00E+00	2.58E+03	2.30E+02
200-BC-1	216-B-53A	5.49E-01	6.76E+02	0.00E+00	2.89E+01	3.94E+00	0.00E+00	0.00E+00	1.19E-02	0.00E+00	2.84E-01	1.94E+00	1.43E-01	2.98E-03	0.00E+00	1.63E+01	5.47E+00	1.56E+03	8.55E+00	8.83E+00	7.77E+01	5.34E+01	1.26E+00	7.15E-02	2.18E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.47E-04	3.08E+01
200-BC-1	216-B-53B	2.01E-02	3.86E+02	0.00E+00	8.67E+00	2.12E+00	0.00E+00	0.00E+00	3.33E-04	0.00E+00	7.92E-03	8.31E-01	2.80E-02	8.32E-05	0.00E+00	2.38E+00	2.93E+00	9.00E+02	4.93E+00	3.13E+00	3.94E+01	2.75E+01	3.52E-02	2.00E-03	1.22E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-04	8.27E+00
200-BC-1	216-B-54	9.99E-01	3.89E+02	0.00E+00	8.70E+00	2.63E+00	0.00E+00	0.00E+00	2.19E-02	0.00E+00	5.22E-01	8.31E-01	1.22E-01	5.48E-03	0.00E+00	2.13E+01	3.69E+00	9.01E+02	4.93E+00	3.13E+00	3.94E+01	3.86E+01	2.32E+00	1.32E-01	1.36E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-04	1.34E+01
200-EA-1	216-B-55	1.20E+03	2.49E+03	9.32E-02	4.23E+01	1.47E-02	9.51E-06	0.00E+00	2.94E-06	1.26E-06	6.65E+00	9.90E-04	0.00E+00	6.04E+00	0.00E+00	2.27E+04	8.96E+02	6.04E+02	3.58E-01	9.07E+04	5.57E-03	1.25E+04	2.97E+03	1.60E+02	1.06E+03	0.00E+00	1.75E-08	0.00E+00	0.00E+00	3.77E-03	2.80E-04
200-DV-1	216-B-57	8.43E+01	3.64E+02	4.67E+01	3.98E+00	2.42E+01	3.37E-02	2.42E-07	1.21E+00	1.91E-03	9.85E-01	1.06E-01	4.09E+00	3.21E-01	0.00E+00	1.11E+03	3.78E+01	2.74E+02	1.16E+02	3.13E+01	5.88E+00	6.53E+02	9.23E+01	1.27E+01	1.67E+02	0.00E+00	1.68E+00	0.00E+00	6.00E+02	9.02E-01	5.94E-02
200-BC-1	216-B-58	4.17E-01	3.10E+02	0.00E+00	6.95E+00	1.91E+00	0.00E+00	0.00E+00	9.10E-03	0.00E+00	2.17E-01	6.65E-01	6.09E-02	2.27E-03	0.00E+00	9.64E+00	2.65E+00	7.21E+02	3.95E+00	2.50E+00	3.15E+01	2.65E+01	9.62E-01	5.46E-02	1.03E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-04	8.73E+00
200-EA-1	216-B-59	4.77E-01	9.92E-01	3.71E-05	1.69E-02	5.88E-06	3.79E-09	0.00E+00	1.17E-09	5.02E-10	2.65E-03	3.95E-07	0.00E+00	2.41E-03	0.00E+00	9.06E+00	3.57E-01	2.41E-01	1.43E-04	3.61E+01	2.22E-06	4.96E+00	1.19E+00	6.36E-02	4.22E-01	0.00E+00	6.99E-12	0.00E+00	0.00E+00	1.50E-06	1.12E-07
200-EA-1	216-B-6	6.00E+00	2.70E+04	0.00E+00	6.28E+02	2.50E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.42E+02	0.00E+00	0.00E+00	0.00E+00	2.16E+03	1.62E+02	5.84E+04	6.63E+03	7.09E+02	0.00E+00	2.31E+03	0.00E+00	0.00E+00	6.76E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.98E-01
200-CB-1	216-B-60	1.89E-02	8.49E+01	0.00E+00	1.98E+00	7.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E+00	0.00E+00	0.00E+00	0.00E+00	7.04E+00	5.11E-01	1.84E+02	2.09E+01	2.58E+00	0.00E+00	7.29E+00	0.00E+00	0.00E+00	2.13E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.34E-01
200-EA-1	216-B-62	2.80E+02	1.62E+03	1.97E+01	1.34E+01	2.96E+01	1.42E-02	0.00E+00	1.08E-02	1.24E-04	3.11E+00	3.56E+00	0.00E+00	1.74E+00	0.00E+00	5.32E+03	2.19E+02	7.61E+02	7.32E+02	2.15E+04	7.08E+01	3.15E+03	7.05E+02	3.77E+01	2.70E+02	0.00E+00	4.10E-09	0.00E+00	0.00E+00	1.00E+01	1.03E+00
200-EA-1	216-B-63	7.98E+03	1.70E+04	7.19E-03	4.27E+02	1.38E+01	7.34E-07	0.00E+00	7.81E-01	9.71E-08	1.06E+00	1.11E-02	2.64E+00	4.62E+01	0.00E+00	1.48E+05	8.88E+03	3.14E+03	2.76E-02	5.73E+05	5.34E+01	8.92E+04	1.87E+04	1.12E+03	1.21E+04	0.00E+00	1.00E-03	0.00E+00	3.87E+02	1.29E-03	1.77E+02
200-DV-1	216-B-7A&B	4.46E+01	1.18E+06	0.00E+00	3.46E+03	1.16E+04	2.94E+03	4.14E+00	1.23E-02	0.00E+00	7.69E+00	3.01E+03	8.35E+00	9.25E+02	0.00E+00	5.02E+03	2.81E+05	2.71E+06	1.48E+03	7.31E+03	9.62E+04	1.12E+04	1.44E+02	1.62E+05	3.24E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E+00	1.95E+02

OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-DV-1	216-B-8	3.53E+01	1.06E+06	0.00E+00	2.54E+03	6.23E+03	2.33E+03	4.68E-02	0.00E+00	0.00E+00	0.00E+00	2.36E+03	6.47E+00	1.03E+01	0.00E+00	3.65E+03	9.44E+03	1.94E+06	9.12E+01	5.46E+03	1.62E+05	1.18E+05	7.08E+03	1.05E+05	2.69E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-04	1.91E+02
200-DV-1	216-B-9	3.60E+01	8.81E+04	0.00E+00	2.19E+02	6.40E+02	2.01E+02	7.70E-02	0.00E+00	0.00E+00	0.00E+00	2.02E+02	5.58E-01	1.69E+01	0.00E+00	3.15E+02	5.45E+03	1.70E+05	6.36E+00	4.71E+02	1.20E+04	7.76E+03	4.56E+02	9.53E+03	2.29E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.34E-06	1.23E+01
200-EA-1	216-BY-201	4.16E-02	3.30E+03	0.00E+00	3.95E+00	6.49E+00	1.45E+00	0.00E+00	1.18E-02	0.00E+00	0.00E+00	3.88E+00	1.13E-04	0.00E+00	0.00E+00	5.45E+00	2.43E+01	7.50E+03	3.50E+00	8.17E+00	2.53E+02	4.38E+02	1.07E+01	1.50E+02	1.01E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-05	1.17E+00
200-EA-1	216-C-1	2.34E+01	2.56E+06	4.46E+05	2.53E+03	5.77E+04	0.00E+00	0.00E+00	7.71E+00	0.00E+00	9.15E+01	2.51E+03	9.85E-01	5.94E+02	0.00E+00	3.54E+03	2.09E+04	2.76E+06	7.39E+05	5.29E+03	0.00E+00	5.27E+04	6.95E+03	0.00E+00	6.80E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E+03	9.09E+02
200-EA-1	216-C-10	8.97E-01	1.05E+01	0.00E+00	5.82E-01	7.96E-02	0.00E+00	0.00E+00	7.68E-03	0.00E+00	1.04E-01	4.70E-02	0.00E+00	6.34E-03	0.00E+00	5.02E+00	7.76E-01	1.07E+01	2.68E+00	5.89E-02	0.00E+00	1.95E+00	0.00E+00	0.00E+00	3.49E-01	0.00E+00	0.00E+00	0.00E+00	7.96E-02	1.23E-02	6.53E-03
200-EA-1	216-C-2	3.15E+00	1.20E+00	0.00E+00	1.51E-01	0.00E+00	0.00E+00	0.00E+00	2.68E-02	0.00E+00	4.62E-02	0.00E+00	0.00E+00	2.23E-02	0.00E+00	1.75E+01	2.88E-01	2.86E+00	0.00E+00	0.00E+00	0.00E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-01	0.00E+00	1.18E-03
200-EA-1	216-C-3	5.00E+00	1.18E+02	0.00E+00	8.51E-01	5.85E-01	0.00E+00	0.00E+00	1.06E-02	0.00E+00	4.54E-02	3.01E-01	0.00E+00	4.54E-02	0.00E+00	9.95E+01	6.16E+04	7.65E+04	1.34E+00	2.94E-02	1.34E+03	6.48E-01	0.00E+00	1.24E+02	1.74E-01	0.00E+00	2.52E-02	0.00E+00	0.00E+00	3.14E-02	4.54E+00
200-EA-1	216-C-4	1.70E-01	8.50E+00	7.05E-01	1.03E-01	1.04E-06	0.00E+00	0.00E+00	1.47E-03	0.00E+00	2.49E-03	5.89E-02	0.00E+00	1.20E-03	0.00E+00	9.86E-01	7.44E-02	4.94E+00	5.37E-01	1.63E+00	9.53E-02	5.48E-01	8.44E-03	0.00E+00	2.46E-01	0.00E+00	0.00E+00	0.00E+00	1.51E-02	1.11E-03	3.16E-03
200-EA-1	216-C-5	3.89E-02	6.50E+02	0.00E+00	1.23E+01	1.63E+01	0.00E+00	0.00E+00	2.50E-02	0.00E+00	9.04E-01	4.49E+00	0.00E+00	0.00E+00	0.00E+00	7.31E+00	4.81E+00	4.23E+02	4.96E+02	1.09E+01	0.00E+00	1.64E+02	1.41E+01	0.00E+00	2.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E+00	2.07E+01
200-EA-1	216-C-6	5.31E-01	2.75E+01	3.16E+00	2.57E-01	2.82E-06	0.00E+00	0.00E+00	8.76E-05	0.00E+00	0.00E+00	1.59E-01	0.00E+00	0.00E+00	0.00E+00	1.12E-01	1.59E-01	2.81E+02	1.45E+00	4.39E+00	2.57E-01	1.14E+00	2.28E-02	0.00E+00	6.63E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03	1.78E+00
200-EA-1	216-C-7	5.99E-02	1.29E-01	0.00E+00	6.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.45E-04	0.00E+00	0.00E+00	1.86E-03	0.00E+00	1.19E+00	4.33E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.75E-03	6.41E-02	0.00E+00	0.00E+00	0.00E+00	7.87E-02	0.00E+00	3.65E-05
WMA-C	216-C-8	1.00E-02	3.75E-03	0.00E+00	4.80E-04	0.00E+00	0.00E+00	0.00E+00	8.48E-05	0.00E+00	1.46E-04	0.00E+00	0.00E+00	7.07E-05	0.00E+00	5.55E-02	9.13E-04	9.07E-03	0.00E+00	0.00E+00	0.00E+00	7.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-04	0.00E+00	3.73E-06
200-SW-2	216-C-9	1.04E+03	2.08E+03	7.28E-02	3.86E+01	1.15E-02	7.44E-06	0.00E+00	4.39E-01	9.84E-07	5.98E+00	7.74E-04	0.00E+00	5.47E+00	0.00E+00	1.90E+04	7.48E+02	5.19E+02	2.80E-01	7.45E+04	4.36E-03	1.03E+04	2.44E+03	1.32E+02	9.07E+02	0.00E+00	1.37E-08	0.00E+00	8.00E+00	2.95E-03	4.52E-02
200-CW-3	216-N-1	9.47E+02	2.04E+03	0.00E+00	1.06E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.61E+00	0.00E+00	0.00E+00	2.94E+01	0.00E+00	1.88E+04	6.85E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E+02	1.01E+03	0.00E+00	0.00E+00	0.00E+00	1.24E+03	0.00E+00	5.77E-01
200-CW-3	216-N-2	7.57E+00	1.85E+01	0.00E+00	8.15E-01	2.00E-02	5.72E-03	2.35E-06	6.04E-06	3.77E-04	6.55E-02	6.46E-03	1.06E-06	2.24E-01	0.00E+00	1.43E+02	5.38E+00	4.46E+00	5.40E-02	6.94E-01	3.77E-01	4.01E-01	1.12E-02	1.14E+00	7.78E+00	0.00E+00	0.00E+00	0.00E+00	9.47E+00	2.34E-02	2.23E-02
200-CW-3	216-N-3	7.57E+00	1.85E+01	0.00E+00	8.15E-01	2.00E-02	5.72E-03	2.35E-06	6.04E-06	3.77E-04	6.55E-02	6.46E-03	1.06E-06	2.24E-01	0.00E+00	1.43E+02	5.38E+00	4.46E+00	5.40E-02	6.94E-01	3.77E-01	4.01E-01	1.12E-02	1.14E+00	7.78E+00	0.00E+00	0.00E+00	0.00E+00	9.47E+00	2.34E-02	2.23E-02
200-CW-3	216-N-4	9.47E+02	2.04E+03	0.00E+00	1.06E+02	2.01E-02	5.73E-03	2.35E-06	6.05E-06	3.78E-04	8.61E+00	6.46E-03	1.06E-06	2.94E+01	0.00E+00	1.88E+04	6.85E+02	4.46E+00	5.41E-02	6.95E-01	3.77E-01	4.01E-01	1.12E-02	1.23E+02	1.01E+03	0.00E+00	0.00E+00	0.00E+00	1.24E+03	2.35E-02	5.94E-01
200-CW-3	216-N-5	7.57E+00	1.85E+01	0.00E+00	8.15E-01	2.00E-02	5.72E-03	2.35E-06	6.04E-06	3.77E-04	6.55E-02	6.46E-03	1.06E-06	2.24E-01	0.00E+00	1.43E+02	5.38E+00	4.46E+00	5.40E-02	6.94E-01	3.77E-01	4.01E-01	1.12E-02	1.14E+00	7.78E+00	0.00E+00	0.00E+00	0.00E+00	9.47E+00	2.34E-02	2.23E-02
200-CW-3	216-N-6	9.47E+02	2.04E+03	0.00E+00	1.06E+02	2.01E-02	5.73E-03	2.35E-06	6.05E-06	3.78E-04	8.61E+00	6.46E-03	1.06E-06	2.94E+01	0.00E+00	1.88E+04	6.85E+02	4.46E+00	5.41E-02	6.95E-01	3.77E-01	4.01E-01	1.12E-02	1.23E+02	1.01E+03	0.00E+00	0.00E+00	0.00E+00	1.24E+03	2.35E-02	5.94E-01
200-CW-3	216-N-7	7.57E+00	1.85E+01	0.00E+00	8.15E-01	2.00E-02	5.72E-03	2.35E-06	6.04E-06	3.77E-04	6.55E-02	6.46E-03	1.06E-06	2.24E-01	0.00E+00	1.43E+02	5.38E+00	4.46E+00	5.40E-02	6.94E-01	3.77E-01	4.01E-01	1.12E-02	1.14E+00	7.78E+00	0.00E+00	0.00E+00	0.00E+00	9.47E+00	2.34E-02	2.23E-02
200-WA-1	216-S-1&2	1.60E+02	9.78E+03	2.71E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E+03
200-OA-1	216-S-10P	6.73E+03	2.26E+04	4.63E+01	7.39E+02	2.98E+03	0.00E+00	0.00E+00	1.20E+02	0.00E+00	2.97E+03	1.97E-01	9.27E+00	4.29E+01	0.00E+00	1.01E+05	4.92E+03	4.54E+04	3.71E+04	7.24E+04	0.00E+00	7.76E+04	1.18E+04	7.43E+02	2.18E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.26E-01	5.12E+02
200-WA-1	216-S-12	7.48E-02	1.44E+01	3.98E+00	1.36E-04	6.40E-03	0.00E+00	0.00E+00	2.97E-07	0.00E+00	4.92E-05	1.26E-04	0.00E+00	2.14E-06	0.00E+00	4.38E-04	8.80E-04	1.05E+02	5.93E-02	6.56E-04	0.00E+00	2.50E-03	6.97E-04	0.00E+00	3.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.01E-04	3.23E+00
200-DV-1	216-S-13	5.00E+00	4.95E+03	8.82E-01	6.76E-01	1.21E+01	0.00E+00	0.00E+00	4.09E-03	0.00E+00	0.00E+00	5.69E-01	0.00E+00	1.76E-02	0.00E+00	3.91E+01	2.38E+04	3.48E+04	1.39E+03	9.70E-01	5.19E+02	8.13E+00	0.00E+00	4.79E+01	1.30E+02	0.00E+00	9.75E-03	0.00E+00	0.00E+00	7.72E-01	3.05E+00
200-WA-1	216-S-14	7.60E-02	1.22E+02	2.17E-02	1.12E-02	2.94E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-02	0.00E+00	0.00E+00	0.00E+00	1.61E-02	9.93E-01	1.33E+02	3.36E+01	2.40E-02	0.00E+00	1.98E-01	0.00E+00	0.00E+00	3.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-02	7.35E-02
200-CW-1	216-S-16P	4.07E+04	5.31E+05	1.49E+01	7.74E-02	1.54E+00	0.00E+00	0.00E+00	3.97E+01	0.00E+00	1.16E-02	7.02E-02	3.00E-05	1.23E-02	0.00E+00	2.07E+03	2.24E+04	2.29E+06	2.03E+06	1.36E-01	3.28E+01	1.20E+00	9.01E+03	3.04E+00	1.82E+00	0.00E+00	6.16E-04	0.00E+00	0.00E+00	1.60E-01	6.58E+02
200-CW-1	216-S-17	6.44E+03	7.14E+04	2.58E+01	5.82E-01	3.33E+00	0.00E+00	0.00E+00	5.34E+00	0.00E+00	3.08E-02	1.37E-01	5.03E-04	7.07E-02	0.00E+00	2.97E+02	3.35E+03	3.09E+05	2.72E+05	3.09E-01	1.28E+03	2.82E+04	1.21E+03	4.89E+02	2.89E+03	0.00E+00	2.22E-04	0.00E+00	0.00E+00	1.94E-01	3.54E+00
200-OA-1	216-S-19	1.30E+03	2.79E+03	0.00E+00	1.65E+02	6.56E+02	0.00E+00	0.00E+00	2.62E+01	0.00E+00	6.56E+02	0.00E+00	0.00E+00	9.51E+00	0.00E+00	2.22E+04	1.00E+03	7.54E+02	0.00E+00	1.63E+04	0.00E+00	1.72E+04	2.56E+03	1.64E+02	4.85E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-01
200-WA-1	216-S-20	1.35E+02	6.81E+04	0.00E+00	1.47E+03	5.88E+03	0.00E+00	0.00E+00	2.64E+00	0.00E+00	6.34E+01	1.50E+03	9.82E+00	7.04E-01	0.00E+00	7.33E+03	5.10E+02	1.48E+05	1.54E+04	1.91E+03	4.79E+02	7.15E+03	2.76E+02	1.60E+01	1.96E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	5.64E+02
200-DV-1	216-S-21	8.71E+01	7.30E+02	1.00E+02	4.14E+00	5.10E+01	1.26E-04	0.00E+00	1.75E+00	1.70E-05	5.12E-01	2.85E-01	1.31E-04	7.68E-02	0.00E+00	1.69E+03	6.91E+01	5.06E+02	2.14E+02	3.14E+00	1.06E-01	1.25E+03	1.91E+02	2.19E+01	3.43E+02	0.00E+00	1.04E+00	0.00E+00	1.22E+03	1.52E+00	1.09E-01
200-WA-1	216-S-22	9.83E-02	1.00E+00	0.00E+00	1.11E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.44E+01	0.00E+00	0.00E+00	0.00E+00	5.54E-01	0.00E+00	0.00E+00	9.93E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-08
200-WA-1	216-S-23	3.41E+01	4.44E+02	1.25E-02	5.29E-05	1.28E-03	0.00E+00	0.00E+00	3.32E-02	0.00E+00	9.68E-06	5.30E-05	2.51E-08	9.38E-06	0.00E+00	1.73E+00	1.75E+01	1.91E+03	1.70E+03	1.14E-04	0.00E+00	1.01E-03	7.54E+00	0.00E+00	1.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-04	1.56E-05
200-WA-1	216-S-25	2.88E+02	9.25E+02	0.00E+00	1.51E+01	1.40E+02	0.00E+00	0.00E+00	5.55E+00	0.00E+00	9.95E+00	8.08E-01	0.00E+00	2.57E-01	0.00E+00	5.55E+03	1.79E+05	2.23E+05	0.00E+00	2.13E+02	3.91E+03	3.88E+03	5.93E+02	4.27E+02	1.03E+03	0.00E+00	7.34E-02	0.00E+00	3.63E+03	7.34E-02	6.88E-01
200-OA-1	216-S-26	2.19E+02	4.71E+02	0.00E+00	2.79E+01	1.11E+02	0.00E+00	0.00E+00	4.42E+00	0.00E+00	1.11E+02	7.12E-05	3.20E-07	1.60E+00	0.00E+00	3.74E+03	1.69E+02	1.27E+02	0.00E+00	2.74E+03	0.00E+00	2.90E+03	4.31E+02	2.76E+01	8.18E+02	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	1.16E-01
200-WA-1	216-S-3	4.20E+00	4.37E+01	6.30E+00	1.99E-01	2.50E+00	8.17E-06	0.00E+00	8.49E-02	1.10E-06	2.55E-02	1.44E-02	6.37E-06	4.09E-03	0.00E+00	8.15E+01	3.28E+01	6.77E+01	1.39E+01	1.95E-01	6.48E-01	6.05E+01	9.20E+00	1.12E+00	1.68E+01	0.00E+00	9.09E-03	0.00E+00	5.94E+01	9.88E-02	2.08E+00
200-WA-1	216-S-4	9.99E-01	2.18E+00	0.00E+00	4.39E-02	5.04E-01	0.00E+00	0.00E+00	2.02E-02	0.00E+00	5.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E+01	7.44E-01	5.18E-01	0.00E+00	0.00E+00	0.00E+00	1.42E+01	2.18E+00	2.52E-01	3.78E+00	0.00E+00	0.00E+00	0.00E+00	1.41E+01	0.00E+00	3.02E-04
200-WA-1	216-S-5	4.08E+03	5.33E+04	2.10E+01	1.36E+00	3.64E+00	0.00E+00	0.00E+00	3.99E+00	0.00E+00	1.16E-03	1.55E-01	3.09E-03	1.68E-01	0.00E+00	2.12E+02	4.67E+03	2.33E+05	2.03E+05	6.06E-01	5.61E+01	1.38E+00	9.04E+02	5.21E+00	2.49E+00	0.00E+00	1.05E-03	0.00E+00	0.00E+00	1.89E-01	1.10E+03
200-WA-1	216-S-6	4.44E+03	5.79E+04	1.35E+01	2.54E-02	1.84E-01	0.00E+00	0.00E+00	4.33E+00	0.00E+00	1.26E-03	1.58E-02	3.27E-06	2.67E-03	0.00E+00	2.28E+02	4.24E+03	2.52E+05	2.21E+05	1.48E-02	4.28E+01	1.31E-01	9.82E+02	3.98E+00	1.97E-01	0.00E+00	8.05E-04	0.00E+00	0.00E+00	1.82E-02	8.54E+02
200-WA-1	216-S-7	3.90E+02	1.18E+04	3.19E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E+03
200-WA-1	216-S-8	1.00E+01	1.28E+06	2.29E+05	1.05E+03	2.88E+04	0.00E+00	0.00E+00	3.24E+00	0.00E+00	0.00E+00	1.07E+03	5.06E-01	3.05E+02	0.00E+00	1.50E+03	1.05E+04	1.40E+06	3.54E+05	2.25E+03	0.00E+00	1.85E+04	2.96E+03	0.00E+00	3.39E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E+03	3.10E+02
200-DV-1	216-S-9	4.96E+01	7.42E+02	1.96E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E+02
200-OA-1	216-T-1	2.75E+02	9.28E+03	3.96E+01	2.48E+02	8.24E+02	0.00E+00	0.00E+00	8.36E-01	0.00E+00	2.37E+00	2.13E+02	0.00E+00	3.39E+00	0.00E+00	4.46E+03	1.88E+02	1.94E+04	2.19E+03	3.40E+02	0.00E+00	2.79E+03	4.49E+02	2.44E+01	4.93E+02	0.00E+00	0.00E+00	0.00E+00	8.54E+00	0.00E+00	2.12E-01
200-WA-1	216-T-12	5.01E+00	3.97E+02	1.37E-01	1.33E+00	2.34E+00	6.71E-01	0.00E+00	1.28E-02	1.35E-01	0.00E+00	7.77E-01	1.37E-03	4.54E-02	0.00E+00	1.00E+02	6.16E+04	7.70E+04	1.16E+01	1.20E+00	1.38E+03	3.55E+01	1.58E+00	1.43E+02	8.22E+00	0.00E+00	2.52E-02	0.00E+00	0.00E+00	7.25E+00	2.17E+02
200-DV-1	216-T-14	1.01E+00	5.70E+04	2.75E+01	1.50E+02	3.61E+02	1.35E+02	0.00E+00	3.60E-01	2.71E+01	0.00E+00	1.00E+02	2.75E-01	0.00E+00	0.00E+00	1.61E+02	3.97E+02	1.08E+05	2.34E+03	2.41E+02	7.10E+03	7.14E+03	3.18E+02	3.78E+03	1.65E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E+03	3.45E+01
200-DV-1	216-T-15	1.04E+00	5.91E+04	2.85E+01	1.55E+02	3.74E+02	1.40E+02	0.00E+00	3.73E-01	2.81E+01	0.00E+00	1.04E+02	2.85E-01	0.00E+00	0.00E+00	1.67E+02	4.11E+02	1.12E+05	2.42E+03	2.50E+02	7.36E+03	7.40E+03	3.29E+02	3.91E+03	1.71E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E+03	3.57E+01
200-DV-1	216-T-16	1.02E+00	5.78E+04	2.79E+01	1.52E+02	3.66E+02	1.37E+02	0.00E+00	3.65E-01	2.75E+01	0.00E+00	1.02E+02	2.79E-01	0.00E+00	0.00E+00	1.63E+02	4.02E+02	1.10E+05	2.37E+03	2.45E+02	7.20E+03	7.24E+03	3.22E+02	3.83E+03	1.68E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E+03	3.50E+01
200-DV-1	216-T-17	7.85E-01	4.45E+04	2.14E+01	1.17E+02	2.82E+02	1.05E+02	0.00E+00	2.81E-01	2.12E+01	0.00E+00	7.83E+01	2.15E-01	0.00E+00	0.00E+00	1.26E+02	3.10E+02	8.43E+04	1.82E+03	1.88E+02	5.54E+03	5.57E+03	2.48E+02	2.95E+03	1.29E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E+03	2.69E+01
200-DV-1	216-T-18	1.02E+00	2.89E+04	0.00E+00	1.28E+02	9.88E+01	3.78E+02	0.00E+00	6.39E-01	5.92E+01	0.00E+00	1.65E+02	0.00E+00	0.00E+00	1.39E+02	2.09E+02	1.56E+02	3.20E+04	7.43E+03	4.13E+02	6.48E+03	1.95E+03	3.59E+02	4.11E+03	6.50E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-02	5.39E+01
200-DV-1	216-T-19	4.55E+02	1.21E+05	0.00E+00	3.53E+02	1.13E+03	3.07E+02	1.85E-01	4.08E+00	0.00E+00	5.50E+00	2.80E+02	7.76E-01	4.31E+01	0.00E+00	3.96E+03	1.26E+04	2.41E+05	8.17E+00	6.68E+02	1.49E+04	9.30E+03	5.93E+02	1.37E+04	3.38E+03	1.66E+03	0.00E+00	0.00E+00	7.73E+02	1.28E-05	1.28E+01
200-WA-1	216-T-2	6.01E+00	2.70E+04	0.00E+00	6.30E+02	2.50E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.43E+02	0.00E+00	0.00E+00	0.00E+00	2.17E+03	1.62E+02	5.85E+04	6.65E+03	7.10E+02	0.00E+00	2.31E+03	0.00E+00	0.00E+00	6.77E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-01
200-WA-1	216-T-20	1.89E-02	3.96E+00	1.89E-02	2.49E-02	1.57E-02	3.21E-03	0.00E+00	1.08E-05	8.31E-04	0.00E+00	3.58E-03	0.00E+00	0.00E+00	0.00E+00	5.03E-03	2.93E-02	1.97E+01	2.84E-01	3.06E-01	2.24E-01	5.05E-01	9.90E-03	1.20E-01	2.05E+00	0.00E+00	2.03E-05	0.00E+00	0.00E+00	5.29E-02	1.07E-03
200-DV-1	216-T-21	4.63E-01	2.63E+04	1.26E+01	6.89E+01	1.66E+02	6.21E+01	0.00E+00	1.66E-01	1.25E+01	0.00E+00	4.62E+01	1.27E-01	0.00E+00	0.00E+00	7.42E+01	1.83E+02	4.97E+04	1.08E+03	1.11E+02	3.27E+03	3.29E+03	1.46E+02	1.74E+03	7.61E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.69E+02	1.59E+01
200-DV-1	216-T-22	1.54E+00	8.73E+04	4.20E+01	2.29E+02	5.53E+02	2.07E+02	0.00E+00	5.52E-01	4.15E+01	0.00E+00	1.54E+02	4.22E-01	0.00E+00	0.00E+00	2.47E+02	6.08E+02	1.65E+05	3.58E+03	3.69E+02	1.09E+04	1.09E+04	4.87E+02	5.78E+03	2.53E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E+03	5.28E+01
200-DV-1	216-T-23	1.49E+00	8.43E+04	4.06E+01	2.21E+02	5.34E+02	1.99E+02	0.00E+00	5.32E-01	4.01E+01	0.00E+00	1.48E+02	4.07E-01	0.00E+00	0.00E+00	2.38E+02	5.86E+02	1.60E+05	3.45E+03	3.56E+02	1.05E+04	1.06E+04	4.70E+02	5.58E+03	2.44E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E+03	5.09E+01
200-DV-1	216-T-24	1.54E+00	8.73E+04	4.20E+01	2.29E+02	5.53E+02	2.07E+02	0.00E+00	5.52E-01	4.15E+01	0.00E+00	1.54E+02	4.22E-01	0.00E+00	0.00E+00	2.47E+02	6.08E+02	1.65E+05	3.58E+03	3.69E+02	1.09E+04	1.09E+04	4.87E+02	5.78E+03	2.53E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E+03	5.28E+01
200-DV-1	216-T-25	2.99E+00	1.69E+05	8.16E+01	4.45E+02	1.07E+03	4.01E+02	0.00E+00	1.07E+00	8.05E+01	0.00E+00	2.98E+02	8.18E-01	0.00E+00	0.00E+00	4.79E+02	1.18E+03	3.21E+05	6.94E+03	7.17E+02	2.11E+04	2.12E+04	9.44E+02	1.12E+04	4.91E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.31E+03	1.02E+02
200-DV-1	216-T-26	1.11E+01	3.12E+05	0.00E+00	1.38E+03	1.07E+03	4.09E+03	0.00E+00	6.90E+00	6.39E+02	0.00E+00	1.78E+03	0.00E+00	0.00E+00	1.50E+03	2.26E+03	1.68E+03	3.46E+05	8.03E+04	4.46E+03	7.00E+04	2.10E+04	3.88E+03	4.44E+04	7.02E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-01	5.82E+02
200-WA-1	216-T-27	7.19E+00	1.38E+04	0.00E+00	3.24E+02	1.26E+03	0.00E+00	0.00E+00	9.21E-02	0.00E+00	2.19E+00	3.23E+02	4.29E-01	2.30E-02	0.00E+00	1.17E+03	8.69E+01	3.00E+04	3.33E+03	3.59E+02	3.30E+01	1.23E+03	9.73E+00	5.52E-01	3.55E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-04	3.07E+01
200-WA-1	216-T-28	4.23E+01	7.38E+04	0.00E+00	1.84E+03	6.03E+03	0.00E+00	0.00E+00	6.15E-01	0.00E+00	1.46E+01	1.56E+03	3.74E+00	1.54E-01	0.00E+00	5.78E+03	4.79E+02	1.61E+05	1.60E+04	1.80E+03	1.04E+03	6.49E+03	6.50E+01	3.69E+00	1.95E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-03	4.72E+02
200-WA-1	216-T-29	7.40E-02	6.66E-01	0.00E+00	8.93E-03	3.48E-02	6.12E-04	2.51E-07	6.46E-07	4.03E-05	0.00E+00	9.07E-03	1.13E-07	5.51E-05	0.00E+00	2.93E-02	1.97E-02	1.24E+00	9.23E-02	8.35E-02	4.03E-02	7.30E-02	1.20E-03	2.24E-02	1.53E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03	1.91E-03
200-DV-1	216-T-3	1.13E+01	2.90E+05	0.00E+00	3.41E+03	2.67E+03	4.55E+03	1.75E+03	0.00E+00	0.00E+00	0.00E+00	6.87E+02	2.00E+00	1.05E+03	0.00E+00	3.01E+03	6.70E+04	6.53E+05	1.08E+00	4.58E+03	2.54E+04	3.12E+03	6.87E+01	3.90E+04	7.80E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.13E-07	2.01E+00
200-DV-1	216-T-32	2.90E+01	1.08E+06	0.00E+00	3.74E+03	1.03E+04	3.73E+03	4.70E+02	0.00E+00	0.00E+00	0.00E+00	2.62E+03	7.70E+00	1.09E+03	0.00E+00	4.70E+03	2.64E+05	2.50E+06	1.23E+00	7.29E+03	8.76E+04	7.76E+03	0.00E+00	1.50E+05	2.97E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-08	5.90E-01
200-WA-1	216-T-33	1.90E+00	2.35E+02	0.00E+00	5.45E+00	2.16E+01	0.00E+00	0.00E+00	1.85E-04	0.00E+00	0.00E+00	9.48E+00	0.00E+00	4.52E-04	0.00E+00	2.57E+01	6.14E+02	1.27E+03	5.74E+01	1.52E+01	1.33E+01	2.04E+01	0.00E+00	1.24E+00	5.85E+00	0.00E+00	2.51E-04	0.00E+00	0.00E+00	2.51E-04	6.01E+01
200-WA-1	216-T-34	1.73E+01	6.29E+04	0.00E+00	1.47E+03	5.83E+03	0.00E+00	0.00E+00	7.28E-02	0.00E+00	1.73E+00	1.51E+03	3.17E-01	1.82E-02	0.00E+00	5.13E+03	3.81E+02	1.36E+05	1.55E+04	1.68E+03	0.00E+00	5.42E+03	7.69E+00	4.37E-01	1.58E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.44E+01
200-WA-1	216-T-35	5.73E+00	1.23E+01	0.00E+00	1.99E-01	3.01E+00	0.00E+00	0.00E+00	1.26E-01	0.00E+00	3.01E+00	0.00E+00	5.51E-01	3.16E-02	0.00E+00	1.11E+02	4.41E+00	3.01E+00	0.00E+00	0.00E+00	0.00E+00	6.50E+01	1.34E+01	7.59E-01	8.25E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E+01
200-WA-1	216-T-36	5.09E-01	2.30E+03	0.00E+00	5.35E+01	2.13E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.46E+01	0.00E+00	0.00E+00	0.00E+00	2.46E+02	1.38E+01	4.97E+03	5.65E+02	1.52E+02	0.00E+00	2.01E+02	0.00E+00	0.00E+00	5.75E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E+02
200-SW-2	216-T-4A	4.28E+04	1.88E+05	0.00E+00	2.92E+03	1.14E+04	1.33E+02	5.46E-02	1.12E+00	8.77E+00	1.35E+00	2.96E+03	2.47E-02	1.26E+01	0.00E+00	1.05E+04	1.31E+04	3.70E+05	3.03E+04	1.93E+04	8.95E+03	1.97E+04	2.85E+02	4.90E+03	4.42E+03	3.62E+02	3.51E-03	0.00E+00	1.69E+02	5.46E+02	6.07E+02
200-DV-1	216-T-5	3.15E+00	1.37E+05	0.00E+00	6.52E+02	1.21E+03	6.05E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E+02	8.10E-01	0.00E+00	0.00E+00	5.48E+02	8.36E+02	2.42E+05	1.55E+01	8.20E+02	2.25E+04	1.50E+04	1.02E+03	1.32E+04	3.48E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-05	2.43E+01
200-DV-1	216-T-6	4.50E+01	1.23E+05	0.00E+00	5.35E+02	6.85E+02	6.19E+02	1.57E+02	0.00E+00	0.00E+00	0.00E+00	2.78E+02	7.64E-01	8.23E+01	0.00E+00	6.02E+02	3.15E+03	2.31E+05	9.24E+00	9.03E+02	1.84E+04	1.29E+04	7.70E+02	1.27E+04	3.15E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-05	2.08E+01
200-DV-1	216-T-7	1.07E+02	3.28E+06	0.00E+00	1.34E+04	2.81E+04	1.27E+04	5.48E+02	0.00E+00	0.00E+00	0.00E+00	7.46E+03	2.11E+01	1.36E+03	0.00E+00	1.35E+04	3.47E+05	6.56E+06	2.01E+02	2.05E+04	4.23E+05	2.19E+05	1.41E+04	3.74E+05	8.59E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E-04	3.40E+02
200-WA-1	216-T-8	5.00E-01	2.28E+02	0.00E+00	5.30E+00	2.11E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.33E+00	0.00E+00	0.00E+00	0.00E+00	2.43E+01	1.37E+00	4.92E+02	5.59E+01	1.50E+01	0.00E+00	1.99E+01	0.00E+00	0.00E+00	5.70E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.75E+01
200-WA-1	216-U-1&2	1.59E+01	8.17E+04	0.00E+00	8.94E+01	2.13E+02	2.15E+01	0.00E+00	2.55E-02	0.00E+00	0.00E+00	8.42E+01	0.00E+00	9.38E-02	0.00E+00	3.91E+02	1.27E+05	1.67E+05	4.52E+03	6.40E+03	6.55E+03	1.68E+05	0.00E+00	2.56E+02	1.97E+03	0.00E+00	4.43E-01	1.09E+03	3.64E+03	3.96E+00	3.95E+03
200-CW-1	216-U-10	1.27E+05	9.40E+05	9.32E+03	2.51E+04	2.29E+02	0.00E+00	0.00E+00	2.98E+01	2.88E-04	5.01E+02	3.53E+02	2.43E-05	6.85E+02	0.00E+00	5.05E+05	1.52E+06	2.85E+06	1.40E+06	3.36E+06	9.47E+05	2.00E+06	2.54E+05	3.18E+04	2.40E+05	3.91E+04	8.98E-02	4.09E+03	1.08E+01	7.64E+04	2.15E+03
200-WA-1	216-U-12	1.49E+02	3.93E+03	5.93E+01	2.29E+01	1.91E+01	0.00E+00	0.00E+00	3.27E-01	5.68E-09	1.81E-07	9.18E+00	6.93E-11	1.35E+00	0.00E+00	2.97E+03	1.83E+06	2.28E+06	3.19E+01	2.75E+00	4.00E+04	4.03E+01	3.68E-07	3.71E+03	1.54E+01	0.00E+00	2.27E+00	0.00E+00	0.00E+00	7.82E-01	6.45E+03
200-WA-1	216-U-13	1.14E-02	5.11E+01	0.00E+00	1.19E+00	4.73E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+00	0.00E+00	0.00E+00	0.00E+00	4.17E+00	3.07E-01	1.11E+02	1.26E+01	1.45E+00	0.00E+00	4.38E+00	0.00E+00	0.00E+00	1.28E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.40E-01
200-WA-1	216-U-14	4.88E+03	3.62E+04	3.59E+02	9.68E+02	8.82E+00	0.00E+00	0.00E+00	1.15E+00	1.11E-05	1.93E+01	1.36E+01	9.36E-07	2.64E+01	0.00E+00	1.95E+04	5.84E+04	1.10E+05	5.41E+04	1.30E+05	3.65E+04	7.70E+04	9.77E+03	1.22E+03	9.26E+03	0.00E+00	3.46E-03	0.00E+00	4.15E-01	2.94E+03	8.28E+01

OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-WA-1	216-U-15	6.81E-02	5.87E+02	0.00E+00	4.65E+00	1.78E+01	1.07E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.72E+00	0.00E+00	0.00E+00	0.00E+00	1.54E+01	2.88E+00	4.35E+02	6.69E+01	3.66E+01	1.88E+01	8.50E+02	0.00E+00	0.00E+00	1.43E+01	0.00E+00	1.95E-03	5.44E+00	1.81E+01	1.95E-02	9.94E+00
200-WA-1	216-U-16	4.09E+02	2.31E+03	6.33E+01	5.84E+01	0.00E+00	0.00E+00	0.00E+00	1.60E-01	0.00E+00	1.53E+00	2.46E+00	0.00E+00	4.32E+00	0.00E+00	5.14E+03	2.69E+02	7.61E+03	6.62E+03	1.70E+02	0.00E+00	3.12E+03	7.46E+02	1.55E+02	4.32E+02	0.00E+00	2.55E+00	1.05E+04	4.41E+03	0.00E+00	1.26E-01
200-WA-1	216-U-17	5.93E+00	1.34E+02	0.00E+00	6.90E-01	6.47E-01	0.00E+00	0.00E+00	1.26E-02	0.00E+00	0.00E+00	3.30E-01	0.00E+00	5.39E-02	0.00E+00	1.18E+02	7.31E+04	9.08E+04	0.00E+00	0.00E+00	1.59E+03	0.00E+00	0.00E+00	1.47E+02	0.00E+00	0.00E+00	3.00E-02	0.00E+00	0.00E+00	3.00E-02	2.46E-01
200-WA-1	216-U-3	7.91E-01	2.13E+00	0.00E+00	3.62E-02	3.91E-01	0.00E+00	0.00E+00	1.56E-02	0.00E+00	4.10E-03	1.10E-03	0.00E+00	1.81E-04	0.00E+00	1.53E+01	2.45E+02	3.05E+02	0.00E+00	0.00E+00	5.34E+00	1.10E+01	1.68E+00	6.90E-01	2.92E+00	0.00E+00	1.00E-04	0.00E+00	1.09E+01	1.00E-04	1.73E+01
200-WA-1	216-U-4	3.00E-01	1.36E+03	0.00E+00	3.14E+01	1.25E+02	2.80E-02	4.01E-05	0.00E+00	0.00E+00	0.00E+00	3.21E+01	7.97E-05	8.97E-03	0.00E+00	1.08E+02	1.08E+01	2.94E+03	3.31E+02	3.55E+01	9.01E-01	1.15E+02	0.00E+00	1.55E+00	3.41E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-13	1.49E-02
200-WA-1	216-U-4A	5.45E-01	3.33E+00	0.00E+00	6.91E-02	4.85E-01	0.00E+00	0.00E+00	1.20E-02	0.00E+00	2.86E-01	5.13E-02	5.23E-02	3.00E-03	0.00E+00	1.07E+01	4.32E-01	4.95E+00	5.30E-01	5.66E-02	0.00E+00	6.36E+00	1.27E+00	7.20E-02	8.37E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E+00
200-WA-1	216-U-4B	3.30E-02	7.10E-02	0.00E+00	1.14E-03	1.73E-02	0.00E+00	0.00E+00	7.28E-04	0.00E+00	1.73E-02	0.00E+00	3.17E-03	1.82E-04	0.00E+00	6.38E-01	2.54E-02	1.73E-02	0.00E+00	0.00E+00	0.00E+00	3.74E-01	7.69E-02	4.37E-03	4.75E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-01
200-WA-1	216-U-5	2.25E+00	3.75E+04	0.00E+00	4.72E+02	9.41E+02	0.00E+00	0.00E+00	1.09E+00	0.00E+00	5.23E+01	2.50E+02	0.00E+00	0.00E+00	0.00E+00	3.80E+02	2.78E+02	2.45E+04	2.86E+04	5.70E+02	0.00E+00	9.50E+03	7.41E+02	0.00E+00	1.16E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.27E+02	6.33E+02
200-WA-1	216-U-6	2.25E+00	3.75E+04	0.00E+00	4.72E+02	9.41E+02	0.00E+00	0.00E+00	1.09E+00	0.00E+00	5.23E+01	2.50E+02	0.00E+00	0.00E+00	0.00E+00	3.80E+02	2.78E+02	2.45E+04	2.86E+04	5.70E+02	0.00E+00	9.50E+03	7.41E+02	0.00E+00	1.16E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.27E+02	6.33E+02
200-WA-1	216-U-7	7.00E-03	5.02E-03	1.51E-06	3.18E-04	1.82E-04	0.00E+00	0.00E+00	3.49E-11	5.70E-10	1.82E-08	1.52E-04	6.96E-12	2.65E-09	0.00E+00	1.39E-01	2.57E+00	2.11E+00	3.53E-06	1.53E-06	9.97E-01	4.83E-01	3.70E-08	3.91E-03	5.17E-03	0.00E+00	7.67E-08	0.00E+00	0.00E+00	3.22E-07	9.80E-09
200-WA-1	216-U-8	3.75E+02	7.48E+03	0.00E+00	1.26E+02	3.21E+01	7.03E-04	2.88E-07	6.70E-01	4.63E-05	0.00E+00	1.63E+01	1.30E-07	2.67E+00	0.00E+00	5.85E+03	3.62E+06	4.56E+06	6.64E-03	8.53E-02	7.90E+04	4.58E+02	1.38E-03	7.30E+03	8.19E+03	0.00E+00	1.49E+00	0.00E+00	0.00E+00	1.49E+00	2.55E+04
200-OA-1	216-W-LWC	9.99E+02	1.10E+05	1.78E+03	5.07E+03	3.23E+01	0.00E+00	0.00E+00	3.13E-01	0.00E+00	1.09E+02	4.89E+01	0.00E+00	6.71E+01	0.00E+00	2.15E+04	9.42E+03	1.38E+03	0.00E+00	0.00E+00	9.39E+04	1.79E+04	2.74E+04	7.21E+02	1.52E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E+04	2.87E+00
200-PW-1	216-Z-1&2	3.37E+01	2.38E+04	2.36E+03	2.44E+01	1.31E+01	0.00E+00	0.00E+00	5.93E+00	0.00E+00	1.45E+01	6.08E+00	0.00E+00	6.08E+02	2.10E+02	1.06E+02	1.55E+05	2.10E+05	1.21E+03	1.21E+03	1.64E+01	2.40E+01	1.32E+01	3.81E+04	7.30E+03	1.26E+04	3.82E+02	1.31E+03	0.00E+00	4.56E-01	1.04E-02
200-PW-6	216-Z-10	1.00E+00	7.56E+00	0.00E+00	4.77E-01	1.03E-02	0.00E+00	0.00E+00	2.78E-04	0.00E+00	0.00E+00	1.15E-02	0.00E+00	3.15E-01	3.71E-04	3.14E-01	7.56E+01	1.30E+03	1.41E+01	3.86E-01	4.74E-01	0.00E+00	0.00E+00	1.83E+01	1.39E+01	9.27E-04	1.85E-01	0.00E+00	0.00E+00	0.00E+00	2.94E-01
200-CW-5	216-Z-11	7.20E+03	5.18E+04	3.04E+02	4.68E+03	2.02E+03	0.00E+00	0.00E+00	1.11E+00	0.00E+00	2.02E+03	2.26E+01	0.00E+00	9.36E+01	0.00E+00	7.27E+04	1.18E+04	9.27E+04	7.57E+00	2.57E+05	2.61E-01	5.29E+04	8.08E+03	6.23E+02	1.02E+04	1.16E+03	0.00E+00	2.67E+04	3.23E+01	0.00E+00	1.76E+00
200-PW-1	216-Z-12	2.72E+02	7.26E+05	1.92E+05	6.94E+02	1.06E+03	0.00E+00	0.00E+00	4.38E+02	0.00E+00	1.18E+03	4.83E+02	3.86E-03	2.11E+03	1.71E+04	8.16E+03	4.01E+05	3.73E+06	9.71E+03	3.98E+04	3.21E+02	1.95E+03	1.08E+03	1.39E+05	2.42E+04	5.88E+04	1.13E+03	6.06E+03	0.00E+00	1.65E+01	1.95E-01
200-WA-1	216-Z-13	4.98E+01	6.52E+01	0.00E+00	2.29E+00	1.26E+01	0.00E+00	0.00E+00	7.14E-01	0.00E+00	4.96E-01	2.52E-01	0.00E+00	1.76E-01	0.00E+00	6.56E+02	2.11E+01	0.00E+00	0.00E+00	2.31E+03	0.00E+00	3.78E+02	5.43E+01	6.28E+00	9.42E+01	2.18E+02	0.00E+00	0.00E+00	3.54E+02	0.00E+00	1.97E-02
200-WA-1	216-Z-14	5.18E+01	6.78E+01	0.00E+00	2.38E+00	1.31E+01	0.00E+00	0.00E+00	7.42E-01	0.00E+00	5.16E-01	2.62E-01	0.00E+00	1.83E-01	0.00E+00	6.83E+02	2.19E+01	0.00E+00	0.00E+00	2.31E+03	0.00E+00	3.93E+02	5.65E+01	6.53E+00	9.80E+01	2.18E+02	0.00E+00	0.00E+00	3.68E+02	0.00E+00	2.05E-02
200-WA-1	216-Z-15	4.81E+01	9.71E+01	0.00E+00	3.53E+00	2.43E+01	0.00E+00	0.00E+00	1.34E-02	0.00E+00	2.43E+01	2.72E-01	0.00E+00	9.71E-01	0.00E+00	8.74E+02	3.48E+01	0.00E+00	0.00E+00	3.06E+03	0.00E+00	6.36E+02	9.71E+01	6.56E+00	1.23E+02	0.00E+00	0.00E+00	0.00E+00	3.88E-01	0.00E+00	2.12E-02
200-WA-1	216-Z-16	1.02E+02	6.33E+04	0.00E+00	6.47E+01	1.29E-01	0.00E+00	0.00E+00	2.33E+00	0.00E+00	0.00E+00	5.18E-01	0.00E+00	2.46E+03	3.11E+00	2.59E+01	6.34E+05	6.90E+05	4.53E+03	3.24E+03	5.05E+01	0.00E+00	0.00E+00	1.54E+05	2.95E+04	7.77E+00	1.55E+03	0.00E+00	0.00E+00	0.00E+00	4.15E-01
200-WA-1	216-Z-17	3.68E+01	2.29E+04	0.00E+00	2.34E+01	4.67E-02	0.00E+00	0.00E+00	8.41E-01	0.00E+00	0.00E+00	1.87E-01	0.00E+00	8.88E+02	1.12E+00	9.35E+00	2.29E+05	2.49E+05	1.64E+03	1.17E+03	1.82E+01	0.00E+00	0.00E+00	5.55E+04	1.07E+04	2.80E+00	5.61E+02	0.00E+00	0.00E+00	0.00E+00	1.50E-01
200-PW-1	216-Z-18	3.86E+00	1.64E+05	4.68E+04	1.39E+02	2.59E+02	0.00E+00	0.00E+00	1.06E+02	0.00E+00	2.87E+02	1.17E+02	0.00E+00	1.35E+02	4.10E+03	1.94E+03	9.59E+01	7.41E+05	1.09E+03	8.24E+03	4.96E+01	4.76E+02	2.59E+02	9.94E+03	8.80E+02	1.90E+05	3.54E+01	1.98E+04	0.00E+00	1.30E+01	2.85E-02
200-CW-5	216-Z-19	6.16E+03	3.76E+04	2.05E+02	3.26E+03	2.02E+03	0.00E+00	0.00E+00	1.11E+00	0.00E+00	2.02E+03	2.26E+01	0.00E+00	8.94E+01	0.00E+00	7.27E+04	8.93E+03	6.24E+04	3.08E+00	2.56E+05	1.06E-01	5.29E+04	8.08E+03	5.98E+02	1.02E+04	7.86E+02	0.00E+00	1.81E+04	3.23E+01	0.00E+00	1.76E+00
200-PW-1	216-Z-1A	6.21E+00	1.77E+05	6.61E+04	1.97E+02	3.65E+02	0.00E+00	0.00E+00	1.44E+02	0.00E+00	3.95E+02	1.65E+02	0.00E+00	1.91E+02	4.43E+03	2.12E+03	1.53E+02	9.12E+05	1.93E+03	8.90E+03	6.92E+01	6.72E+02	2.80E+02	1.15E+04	1.24E+03	3.04E+05	4.81E+01	3.17E+04	0.00E+00	1.70E+02	9.37E-02
200-CW-5	216-Z-1D	1.97E+04	1.60E+05	9.79E+02	1.48E+04	4.75E+03	0.00E+00	0.00E+00	2.61E+00	0.00E+00	4.75E+03	5.31E+01	0.00E+00	2.31E+02	0.00E+00	1.71E+05	3.56E+04	2.99E+05	2.42E+01	6.07E+05	8.33E-01	1.24E+05	1.90E+04	1.53E+03	2.40E+04	3.75E+03	0.00E+00	8.62E+04	7.60E+01	0.00E+00	4.15E+00
200-CW-5	216-Z-20	4.19E+03	5.05E+04	3.43E+02	5.00E+03	2.89E+02	0.00E+00	0.00E+00	1.59E-01	0.00E+00	2.89E+02	3.24E+00	0.00E+00	2.60E+01	0.00E+00	1.04E+04	1.05E+04	1.04E+05	0.00E+00	3.95E+04	0.00E+00	7.58E+03	1.16E+03	1.67E+02	1.46E+03	1.31E+03	0.00E+00	3.02E+04	4.63E+00	0.00E+00	2.52E-01
200-WA-1	216-Z-21	1.57E+03	2.05E+03	0.00E+00	7.21E+01	3.96E+02	0.00E+00	0.00E+00	2.25E+01	0.00E+00	1.56E+01	8.05E+00	0.00E+00	5.54E+00	0.00E+00	2.07E+04	6.64E+02	0.00E+00	0.00E+00	5.67E+04	0.00E+00	1.19E+04	1.71E+03	1.98E+02	2.97E+03	7.92E+03	0.00E+00	0.00E+00	1.12E+04	0.00E+00	6.26E-01
200-PW-1	216-Z-3	9.10E+01	7.01E+03	0.00E+00	4.40E+01	8.19E-01	0.00E+00	0.00E+00	2.58E-01	0.00E+00	0.00E+00	9.54E-01	0.00E+00	2.74E+02	3.44E-01	2.73E+01	7.01E+04	1.72E+05	1.57E+03	3.58E+02	4.23E+01	0.00E+00	0.00E+00	1.70E+04	4.08E+03	8.60E-01	1.72E+02	0.00E+00	0.00E+00	0.00E+00	8.48E-03
200-WA-1	216-Z-4	1.10E-02	3.62E-01	0.00E+00	5.26E-03	1.08E-04	0.00E+00	0.00E+00	1.33E-05	0.00E+00	0.00E+00	1.22E-04	0.00E+00	1.43E-02	1.77E-05	3.40E-03	3.62E+00	1.67E+01	1.68E-01	1.85E-02	5.17E-03	0.00E+00	0.00E+00	8.77E-01	2.77E-01	4.44E-05	8.87E-03	0.00E+00	0.00E+00	0.00E+00	1.41E-02
200-PW-6	216-Z-5	3.10E+01	6.02E+00	0.00E+00	1.48E+01	3.22E-01	0.00E+00	0.00E+00	2.11E-04	0.00E+00	0.00E+00	3.60E-01	0.00E+00	9.05E-01	2.82E-04	9.79E+00	5.74E+01	3.85E+04	4.28E+02	2.93E-01	1.47E+01	0.00E+00	0.00E+00	1.39E+01	3.28E+02	7.04E-04	1.41E-01	0.00E+00	0.00E+00	0.00E+00	2.25E-01
200-WA-1	216-Z-6	9.80E-02	7.70E-01	0.00E+00	4.67E-02	1.00E-03	0.00E+00	0.00E+00	2.83E-05	0.00E+00	0.00E+00	1.13E-03	0.00E+00	3.20E-02	3.77E-05	3.08E-02	7.70E+00	1.28E+02	1.39E+00	3.93E-02	4.64E-02	0.00E+00	0.00E+00	1.87E+00	1.37E+00	9.43E-05	1.89E-02	0.00E+00	0.00E+00	0.00E+00	2.99E-02
200-WA-1	216-Z-7	7.99E+01	2.86E+04	0.00E+00	6.97E+02	2.63E+03	0.00E+00	0.00E+00	8.90E-03	0.00E+00	0.00E+00	7.27E+02	0.00E+00	1.10E+01	1.19E-02	2.38E+03	2.59E+03	1.55E+05	8.01E+03	8.74E+02	3.49E+01	2.44E+03	0.00E+00	5.87E+02	1.59E+03	2.97E-02	5.93E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+02
200-PW-6	216-Z-8	1.04E-02	4.06E+01	1.13E+01	3.39E-02	6.51E-02	0.00E+00	0.00E+00	2.59E-02	0.00E+00	6.96E-02	2.84E-02	0.00E+00	3.27E-02	1.02E+00	6.07E-01	2.72E-02	1.82E+02	2.55E-01	2.60E+00	1.20E-02	1.88E-01	7.48E-02	2.46E+00	2.31E-01	4.72E-02	8.58E-03	0.00E+00	6.82E-02	0.00E+00	1.10E-05
200-PW-1	216-Z-9	4.09E+00	1.76E+05	4.91E+04	1.45E+02	2.72E+02	0.00E+00	0.00E+00	1.12E+02	0.00E+00	3.02E+02	1.23E+02	0.00E+00	1.42E+02	4.43E+03	2.09E+03	1.01E+02	7.90E+05	1.11E+03	8.89E+03	5.22E+01	4.99E+02	2.79E+02	1.07E+04	9.24E+02	2.06E+05	3.73E+01	2.15E+04	0.00E+00	0.00E+00	3.09E-02
WMA-A-AX	241-A-103	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-A-AX	241-A-104	3.79E-03	1.24E+02	3.01E+00	4.13E-01	3.45E+00	1.86E-03	1.14E-09	1.26E-03	2.82E-05	1.87E-01	4.21E-01	7.72E-06	3.83E-02	0.00E+00	5.93E-01	1.20E+00	7.65E+01	8.57E+01	3.32E+01	7.98E+00	2.77E+01	1.15E+00	6.01E-02	2.75E+00	0.00E+00	6.57E-02	0.00E+00	0.00E+00	1.16E+00	1.22E-01
WMA-A-AX	241-A-105	9.50E-01	1.69E+03	0.00E+00	7.53E+00	3.03E+01	0.00E+00	0.00E+00	2.19E-02	0.00E+00	7.63E+00	7.70E+00	2.38E-03	0.00E+00	0.00E+00	1.08E+01	1.34E+01	6.32E+02	1.61E+03	7.00E+01	0.00E+00	6.57E+02	2.00E+01	0.00E+00	5.57E+01	0.00E+00	9.32E+00	0.00E+00	0.00E+00	2.79E+01	2.23E+00
WMA-A-AX	241-AX-102	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-101	3.14E-03	4.06E+02	5.14E+01	2.70E+00	1.95E+00	2.30E-02	1.66E-07	1.08E-03	1.31E-03	9.81E-02	1.70E+00	0.00E+00	1.59E-02	0.00E+00	1.25E+00	3.04E+00	2.78E+02	9.42E+01	6.63E+01	6.65E+00	1.98E+01	4.27E-01	1.38E+00	1.19E+01	0.00E+00	1.15E+00	0.00E+00	0.00E+00	6.47E-01	1.07E-01
WMA-B-BX-BY	241-B-105	1.36E-01	3.45E+04	6.36E+03	1.40E+01	3.90E+02	4.59E+00	3.30E-05	3.73E-02	2.61E-01	1.95E+01	1.44E+01	0.00E+00	3.16E+00	0.00E+00	2.03E+01	2.81E+02	2.92E+04	1.58E+04	4.27E+03	8.01E+02	1.61E+03	3.87E+01	2.75E+02	1.02E+03	0.00E+00	2.29E+02	0.00E+00	0.00E+00	1.23E+02	4.22E+00
WMA-B-BX-BY	241-B-106	4.17E-02	1.73E+03	3.89E+01	4.39E+00	1.69E+01	3.82E+00	5.44E-03	3.03E-04	1.60E-03	1.46E-01	3.79E+00	1.08E-02	1.24E+00	0.00E+00	6.03E+00	3.71E+02	3.68E+03	1.01E+02	3.58E+01	1.27E+02	2.28E+01	3.00E-01	2.11E+02	4.81E+01	0.00E+00	1.37E+00	0.00E+00	0.00E+00	8.36E-01	3.38E-02
WMA-B-BX-BY	241-B-107	2.65E-02	1.10E+03	4.68E+02	2.95E+00	5.10E+00	6.54E-03	0.00E+00	6.61E-04	4.43E-04	3.90E+00	2.57E+00	9.90E-04	0.00E+00	0.00E+00	4.23E+00	2.68E+00	1.15E+03	4.90E+02	1.28E+01	9.64E-01	2.94E+01	2.15E+00	8.33E-02	1.13E+01	0.00E+00	8.85E-01	0.00E+00	0.00E+00	4.09E-01	8.72E-01
WMA-B-BX-BY	241-B-110	3.79E-02	4.45E+03	6.70E+02	3.98E+00	5.96E+01	3.89E-01	2.61E-06	1.16E-02	2.27E-02	4.81E+00	4.08E+00	9.59E-04	5.21E-01	0.00E+00	5.86E+00	3.68E+01	3.63E+03	2.06E+03	5.08E+02	7.34E+01	3.56E+02	1.10E+01	2.27E+01	1.28E+02	0.00E+00	1.81E+01	0.00E+00	0.00E+00	1.97E+01	1.16E+00
WMA-B-BX-BY	241-B-112	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-201	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-204	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BX-101	1.70E-03	1.48E+02	1.33E+01	1.29E+00	6.49E-01	4.19E-04	0.00E+00	5.53E-04	5.55E-05	4.02E-02	8.14E-01	1.81E-05	7.01E-03	0.00E+00	6.05E-01	1.10E+00	9.34E+01	2.28E+01	2.57E+01	1.49E+00	9.13E+00	2.27E-01	1.44E-02	4.21E+00	0.00E+00	7.70E-07	0.00E+00	0.00E+00	1.81E-01	5.29E-02
WMA-B-BX-BY	241-BX-102	4.72E-01	2.87E+04	2.58E+03	2.01E+02	1.54E+02	2.39E+01	5.92E-06	1.18E-02	4.67E-02	1.47E+01	5.56E+01	9.60E-02	1.07E+00	0.00E+00	1.78E+02	7.98E+01	1.41E+04	4.53E+03	1.48E+04	4.42E+03	6.25E+03	5.61E+01	4.92E+01	3.04E+02	0.00E+00	5.37E+01	0.00E+00	0.00E+00	2.31E+01	1.01E+04
WMA-B-BX-BY	241-BX-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BY-103	1.04E-02	2.34E+03	4.32E+02	9.50E-01	2.64E+01	3.11E-01	2.24E-06	2.53E-03	1.77E-02	1.33E+00	9.79E-01	0.00E+00	2.15E-01	0.00E+00	1.38E+00	1.91E+01	1.98E+03	1.07E+03	2.90E+02	5.43E+01	1.09E+02	2.63E+00	1.86E+01	6.95E+01	0.00E+00	1.55E+01	0.00E+00	0.00E+00	8.34E+00	2.87E-01
WMA-B-BX-BY	241-BY-107	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BY-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-101	7.00E-02	2.21E+01	8.06E-01	1.33E-01	5.18E-01	6.79E-05	0.00E+00	3.29E-04	1.80E-06	3.12E-02	1.35E-01	4.15E-05	8.87E-04	0.00E+00	1.93E-01	1.53E-01	1.64E+01	1.37E+01	3.01E+00	9.58E-03	4.44E+00	3.00E-01	1.07E-03	5.82E-01	0.00E+00	3.77E-01	0.00E+00	0.00E+00	1.47E-01	3.90E-02
WMA-C	241-C-104	5.30E-02	1.47E+03	5.69E+02	2.81E+00	4.59E+00	5.84E-02	0.00E+00	3.66E-04	4.58E-03	3.69E+00	2.46E+00	1.06E-03	0.00E+00	0.00E+00	4.22E+00	2.25E+00	1.29E+03	9.13E+02	1.64E+01	8.01E+00	3.59E+01	7.41E+00	1.19E+00	1.02E+01	0.00E+00	1.15E-03	0.00E+00	0.00E+00	3.40E-01	8.06E-01
WMA-C	241-C-105	5.95E-02	3.35E+03	1.23E+02	1.70E+01	6.51E+01	3.63E-02	0.00E+00	3.70E-02	2.14E-04	6.91E+00	1.73E+01	4.95E-03	8.35E-01	0.00E+00	2.48E+01	3.19E+01	2.68E+03	1.70E+03	8.27E+02	1.87E+01	6.12E+02	3.39E+01	1.07E+00	8.18E+01	0.00E+00	4.90E+01	0.00E+00	0.00E+00	2.12E+01	4.96E+00
WMA-C	241-C-108	3.41E-02	1.76E+03	1.06E+02	7.59E+01	1.21E+01	5.22E-02	0.00E+00	9.33E-03	6.68E-03	1.34E+01	7.10E+00	1.63E-04	0.00E+00	0.00E+00	6.34E+00	9.80E+01	1.74E+03	5.49E+02	1.50E+01	5.85E+00	1.96E+02	1.50E+00	1.77E+00	5.28E+01	0.00E+00	1.11E-03	0.00E+00	0.00E+00	2.16E+00	1.04E+00
WMA-C	241-C-110	3.79E-03	2.90E+02	0.00E+00	3.44E-01	6.36E-01	1.50E-01	0.00E+00	9.27E-04	1.15E-02	0.00E+00	3.15E-01	9.94E-04	0.00E+00	0.00E+00	4.94E-01	1.96E+00	5.75E+02	2.27E+01	3.24E+01	2.20E+01	3.71E+01	1.26E-01	1.60E+00	1.05E+01	0.00E+00	1.98E-03	0.00E+00	0.00E+00	8.67E-01	1.05E-01
WMA-C	241-C-111	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-112	1.32E-02	1.49E+01	0.00E+00	7.85E-01	1.16E-01	0.00E+00	0.00E+00	9.46E-05	0.00E+00	1.32E-01	6.85E-02	0.00E+00	0.00E+00	0.00E+00	5.73E-02	1.01E+00	1.44E+01	3.91E+00	8.58E-02	0.00E+00	1.89E+00	0.00E+00	0.00E+00	5.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-02	9.04E-03
WMA-C	241-C-201	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-202	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-204	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-S-104	4.54E-02	2.72E+03	1.10E+03	6.78E+00	1.03E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.66E+00	5.82E+00	2.22E-03	0.00E+00	0.00E+00	9.73E+00	8.91E+00	3.56E+03	8.57E+02	1.46E+01	0.00E+00	3.80E+01	0.00E+00	0.00E+00	3.71E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E-02	2.01E+00
WMA-S-SX	241-SX-104	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-SX-107	2.27E-02	6.38E+03	1.26E+03	5.28E+00	1.44E+02	0.00E+00	0.00E+00	1.63E-02	0.00E+00	4.34E-02	5.39E+00	2.01E-03	7.65E-01	0.00E+00	7.58E+00	4.61E+01	5.54E+03	2.53E+03	1.14E+01	0.00E+00	1.20E+02	1.49E+01	0.00E+00	1.68E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E+01	1.56E+00
WMA-S-SX	241-SX-108	2.84E-01	3.80E+04	7.17E+03	3.12E+01	8.58E+02	0.00E+00	0.00E+00	9.67E-02	0.00E+00	0.00E+00	3.19E+01	1.19E-02	6.43E+00	0.00E+00	4.48E+01	2.90E+02	3.65E+04	1.31E+04	6.71E+01	0.00E+00	6.45E+02	8.82E+01	0.00E+00	1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.89E+01	9.24E+00
WMA-S-SX	241-SX-109	1.89E-03	7.17E+02	1.39E+02	5.91E-01	1.63E+01	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	6.04E-01	2.25E-04	9.60E-02	0.00E+00	8.49E-01	5.27E+00	6.41E+02	2.73E+02	1.27E+00	0.00E+00	1.31E+01	1.67E+00	0.00E+00	1.89E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E+00	1.75E-01
WMA-S-SX	241-SX-110	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-SX-111	5.30E-03	5.68E+02	6.83E+01	7.43E-01	9.14E+00	6.30E-03	8.40E-10	1.75E-03	9.41E-04	5.29E-01	6.92E-01	2.50E-04	9.96E-02	0.00E+00	9.07E-01	4.72E+00	4.65E+02	2.28E+02	6.05E+01	3.28E+00	4.67E+01	1.56E+00	2.29E-01	1.49E+01	0.00E+00	1.65E-01	0.00E+00	0.00E+00	2.30E+00	1.78E-01
WMA-S-SX	241-SX-112	5.11E-02	1.74E+04	3.18E+03	7.05E+00	1.94E+02	4.13E-03	0.00E+00	2.18E-02	5.58E-04	1.61E+00	7.21E+00	3.22E-03	2.05E+00	0.00E+00	1.01E+01	1.35E+02	1.46E+04	7.03E+03	9.86E+01	3.49E+00	3.59E+02	1.99E+01	2.69E-01	4.78E+02	0.00E+00	4.58E+00	0.00E+00	0.00E+00	4.99E+01	2.09E+00
WMA-S-SX	241-SX-113	2.84E-02	4.35E+03	7.76E+02	3.55E+00	9.77E+01	0.00E+00	0.00E+00	1.10E-02	0.00E+00	0.00E+00	3.63E+00	1.36E-03	1.03E+00	0.00E+00	5.10E+00	3.55E+01	4.74E+03	1.20E+03	7.63E+00	0.00E+00	6.28E+01	1.00E+01	0.00E+00	1.15E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E+00	1.05E+00
WMA-S-SX	241-SX-114	3.79E-03	6.33E+02	1.26E+02	5.14E-01	1.41E+01	5.34E-06	0.00E+00	1.59E-03	7.22E-07	2.08E-03	5.26E-01	1.96E-04	6.14E-02	0.00E+00	7.39E-01	4.48E+00	5.22E+02	2.65E+02	1.21E+00	4.52E-03	1.25E+01	1.45E+00	3.48E-04	1.67E+01	0.00E+00	5.93E-03	0.00E+00	0.00E+00	2.19E+00	1.52E-01
WMA-S-SX	241-SX-115	1.14E-01	9.97E+03	2.69E+03	1.32E+01	1.59E+02	5.54E-05	0.00E+00	1.65E-02	7.50E-06	1.12E+01	1.22E+01	4.62E-03	6.38E-01	0.00E+00	1.90E+01	5.66E+01	9.55E+03	4.04E+03	2.95E+01	4.69E-02	1.75E+02	1.67E+01	3.61E-03	2.15E+02	0.00E+00	6.16E-02	0.00E+00	0.00E+00	2.28E+01	3.91E+00
WMA-T	241-T-101	5.00E-01	3.77E+04	1.32E+04	4.75E+01	1.86E+02	2.50E-03	0.00E+00	1.35E-02	3.38E-04	6.24E+01	4.19E+01	1.67E-02	1.27E+00	0.00E+00	6.82E+01	1.29E+02	3.18E+04	2.15E+04	1.53E+02	2.11E+00	5.32E+02	7.82E+01	1.63E-01	4.86E+02	0.00E+00	2.77E+00	0.00E+00	0.00E+00	3.12E+01	1.41E+01

OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
WMA-T	241-T-102	1.04E-03	9.03E+01	1.12E+01	6.29E-01	5.50E-01	2.16E-04	0.00E+00	2.89E-04	2.86E-05	3.53E-02	4.03E-01	1.56E-05	4.95E-03	0.00E+00	3.13E-01	6.44E-01	6.12E+01	1.98E+01	1.24E+01	7.16E-01	4.80E+00	1.40E-01	7.50E-03	2.45E+00	0.00E+00	2.54E-03	0.00E+00	0.00E+00	1.37E-01	3.06E-02
WMA-T	241-T-103	2.46E-03	2.22E+02	3.03E+01	5.79E-01	2.96E+00	1.63E-03	4.36E-11	6.55E-04	2.13E-04	1.82E-01	4.31E-01	8.25E-05	2.94E-02	0.00E+00	4.47E-01	1.73E+00	1.74E+02	8.18E+01	2.26E+01	1.26E+00	1.55E+01	5.30E-01	5.46E-02	5.74E+00	0.00E+00	1.58E-02	0.00E+00	0.00E+00	7.31E-01	7.12E-02
WMA-T	241-T-106	4.15E-01	3.93E+04	5.17E+03	1.08E+02	5.33E+02	5.81E-01	4.33E-09	1.17E-01	1.71E-01	3.16E+01	8.12E+01	1.44E-02	5.31E+00	0.00E+00	8.93E+01	3.29E+02	3.12E+04	1.41E+04	4.13E+03	2.55E+02	2.79E+03	9.46E+01	3.30E+01	1.03E+03	0.00E+00	3.67E+00	0.00E+00	0.00E+00	1.61E+02	1.26E+01
WMA-T	241-T-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-T	241-T-109	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-T	241-T-111	3.97E-03	2.58E+02	0.00E+00	6.04E-01	2.30E+00	5.54E-01	9.00E-13	0.00E+00	0.00E+00	0.00E+00	5.62E-01	1.54E-03	2.01E-10	0.00E+00	8.67E-01	1.59E+00	4.60E+02	2.95E-02	1.30E+00	3.87E+01	2.85E+01	1.71E+00	2.50E+01	6.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.67E-08	4.61E-02
WMA-TX-TY	241-TX-104	4.73E-02	6.50E+02	0.00E+00	1.55E+00	2.70E+00	9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E+00	3.97E-03	0.00E+00	0.00E+00	2.23E+00	4.49E-01	1.71E+02	1.13E+01	5.56E+02	9.94E+01	1.76E+02	1.83E+00	0.00E+00	1.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-02	1.41E+01
WMA-TX-TY	241-TX-105	3.29E-01	1.46E+04	0.00E+00	3.48E+01	6.09E+01	2.19E+01	0.00E+00	2.25E-02	0.00E+00	0.00E+00	3.44E+01	8.90E-02	0.00E+00	0.00E+00	5.00E+01	1.01E+01	3.82E+03	2.75E+02	1.25E+04	2.23E+03	3.96E+03	4.11E+01	0.00E+00	4.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.83E-01	3.16E+02
WMA-TX-TY	241-TX-107	2.46E-03	6.03E+02	9.35E+01	2.57E-01	7.08E+00	1.52E-01	3.67E-11	7.98E-04	3.79E-02	3.64E-01	2.63E-01	7.64E-07	7.28E-02	0.00E+00	3.70E-01	6.39E+00	5.32E+02	2.05E+02	5.75E+01	1.47E+01	2.91E+01	7.28E-01	6.18E+00	2.07E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	5.01E+00	7.62E-02
WMA-TX-TY	241-TX-114	1.32E-02	3.26E+03	5.04E+02	1.38E+00	3.81E+01	8.25E-01	1.99E-10	4.29E-03	2.05E-01	1.97E+00	1.41E+00	0.00E+00	3.91E-01	0.00E+00	1.99E+00	3.45E+01	2.87E+03	1.10E+03	3.11E+02	7.96E+01	1.57E+02	3.91E+00	3.35E+01	1.12E+02	0.00E+00	9.35E+00	0.00E+00	0.00E+00	2.71E+01	4.10E-01
WMA-TX-TY	241-TX-118	3.31E-03	8.14E+02	1.26E+02	3.46E-01	9.51E+00	2.06E-01	4.98E-11	1.07E-03	5.14E-02	4.93E-01	3.54E-01	0.00E+00	9.78E-02	0.00E+00	4.97E-01	8.63E+00	7.17E+02	2.76E+02	7.78E+01	1.99E+01	3.93E+01	9.78E-01	8.37E+00	2.79E+01	0.00E+00	2.34E+00	0.00E+00	0.00E+00	6.78E+00	1.02E-01
WMA-TX-TY	241-TY-101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-TX-TY	241-TY-103	6.81E-03	1.68E+03	2.60E+02	7.14E-01	1.96E+01	4.25E-01	1.05E-10	2.21E-03	1.06E-01	1.01E+00	7.29E-01	2.40E-07	2.02E-01	0.00E+00	1.02E+00	1.78E+01	1.48E+03	5.69E+02	1.60E+02	4.10E+01	8.10E+01	2.01E+00	1.72E+01	5.75E+01	0.00E+00	4.82E+00	0.00E+00	0.00E+00	1.40E+01	2.11E-01
WMA-TX-TY	241-TY-104	2.65E-03	6.52E+02	1.01E+02	2.77E-01	7.62E+00	1.65E-01	3.98E-11	8.58E-04	4.11E-02	3.94E-01	2.83E-01	0.00E+00	7.83E-02	0.00E+00	3.98E-01	6.91E+00	5.74E+02	2.21E+02	6.23E+01	1.59E+01	3.15E+01	7.83E-01	6.70E+00	2.23E+01	0.00E+00	1.87E+00	0.00E+00	0.00E+00	5.43E+00	8.20E-02
WMA-TX-TY	241-TY-105	1.38E-01	1.39E+04	0.00E+00	1.57E+01	2.53E+01	5.73E+00	0.00E+00	4.86E-02	0.00E+00	0.00E+00	1.43E+01	4.60E-02	0.00E+00	0.00E+00	2.25E+01	9.38E+01	2.77E+04	1.12E+03	1.69E+03	1.01E+03	1.78E+03	0.00E+00	0.00E+00	5.15E+02	0.00E+00	1.04E-01	0.00E+00	0.00E+00	1.04E+00	4.83E+00
WMA-TX-TY	241-TY-106	3.41E-02	2.87E+03	0.00E+00	3.23E+00	5.22E+00	1.18E+00	0.00E+00	1.00E-02	0.00E+00	0.00E+00	2.94E+00	9.46E-03	0.00E+00	0.00E+00	4.64E+00	1.93E+01	5.72E+03	2.30E+02	3.49E+02	2.07E+02	3.68E+02	0.00E+00	0.00E+00	1.06E+02	0.00E+00	2.14E-02	0.00E+00	0.00E+00	2.14E-01	9.95E-01
WMA-U	241-U-101	5.68E-02	7.49E+03	1.34E+03	6.12E+00	1.68E+02	0.00E+00	0.00E+00	1.90E-02	0.00E+00	0.00E+00	6.25E+00	2.34E-03	1.78E+00	0.00E+00	8.78E+00	6.11E+01	8.16E+03	2.07E+03	1.32E+01	0.00E+00	1.08E+02	1.73E+01	0.00E+00	1.98E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.51E+00	1.81E+00
WMA-U	241-U-104	2.06E-01	3.24E+03	0.00E+00	7.74E+00	1.35E+01	4.84E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.61E+00	1.98E-02	0.00E+00	0.00E+00	1.11E+01	2.24E+00	8.52E+02	5.65E+01	2.77E+03	4.96E+02	8.80E+02	9.10E+00	0.00E+00	9.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-02	7.03E+01
WMA-U	241-U-110	5.68E-02	2.07E+03	4.34E+02	1.25E+00	2.11E+01	4.02E-01	9.57E-11	2.29E-03	1.00E-01	1.67E+00	1.21E+00	2.23E-04	2.09E-01	0.00E+00	1.80E+00	1.78E+01	1.75E+03	8.78E+02	1.51E+02	3.87E+01	8.18E+01	3.54E+00	1.63E+01	5.80E+01	0.00E+00	4.50E+00	0.00E+00	0.00E+00	1.33E+01	3.84E-01
WMA-U	241-U-112	2.17E-01	2.90E+04	5.11E+03	2.60E+01	6.05E+02	2.73E+00	0.00E+00	6.69E-02	6.48E-01	1.62E+00	2.62E+01	1.71E-02	6.29E+00	0.00E+00	3.73E+01	2.26E+02	3.21E+04	8.09E+03	3.12E+02	2.08E+02	6.45E+02	7.22E+01	9.06E+01	7.44E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.15E+01	1.40E+01
200-PW-1	241-Z-361	2.23E+02	3.96E+04	2.48E+03	1.17E+02	1.54E+01	0.00E+00	0.00E+00	6.52E+00	0.00E+00	1.47E+01	8.29E+00	1.89E-03	1.27E+03	1.53E+02	1.37E+02	3.24E+05	5.84E+05	4.60E+03	3.59E+03	1.04E+02	2.52E+01	9.55E+00	7.90E+04	1.68E+04	6.66E+02	7.96E+02	6.50E+01	0.00E+00	8.08E+00	5.16E-02
200-PW-6	241-Z-8	1.04E-02	4.06E+01	1.13E+01	3.39E-02	6.51E-02	0.00E+00	0.00E+00	2.59E-02	0.00E+00	6.96E-02	2.84E-02	0.00E+00	3.27E-02	1.02E+00	6.07E-01	2.72E-02	1.82E+02	2.55E-01	2.60E+00	1.20E-02	1.88E-01	7.48E-02	2.46E+00	2.31E-01	4.72E-02	8.58E-03	0.00E+00	6.82E-02	0.00E+00	1.10E-05
WMA-S-SX	216-S-15	2.10E-01	3.20E+02	5.72E-02	2.99E-02	7.78E-01	0.00E+00	0.00E+00	2.02E-04	0.00E+00	5.31E-05	3.01E-02	0.00E+00	0.00E+00	0.00E+00	2.36E-01	2.62E+00	3.49E+02	8.84E+01	6.32E-02	0.00E+00	6.63E-01	2.18E-02	2.52E-03	8.51E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-01	4.57E-02	1.94E-01
200-CB-1	UPR-200-E-1	2.04E-02	1.17E+03	0.00E+00	2.14E+00	7.32E+00	1.93E+00	0.00E+00	0.00E+00	5.48E-01	0.00E+00	2.03E+00	5.59E-03	0.00E+00	0.00E+00	3.07E+00	8.05E+00	2.20E+03	6.28E+01	4.59E+00	1.37E+02	1.45E+02	6.04E+00	7.66E+01	3.35E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.05E+01	6.32E-01
WMA-B-BX-BY	UPR-200-E-105	8.71E-02	4.91E+03	0.00E+00	9.12E+00	3.12E+01	8.23E+00	0.00E+00	2.82E-02	2.34E+00	0.00E+00	8.67E+00	2.38E-02	0.00E+00	0.00E+00	1.31E+01	3.43E+01	9.33E+03	2.02E+02	1.96E+01	5.84E+02	6.17E+02	2.58E+01	3.26E+02	1.43E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+02	2.70E+00
WMA-C	UPR-200-E-107	1.89E-05	1.69E+00	0.00E+00	1.90E-03	3.07E-03	6.95E-04	0.00E+00	5.90E-06	0.00E+00	0.00E+00	1.74E-03	5.58E-06	0.00E+00	0.00E+00	2.73E-03	1.14E-02	3.37E+00	1.36E-01	2.05E-01	1.22E-01	2.17E-01	0.00E+00	0.00E+00	6.25E-02	0.00E+00	1.26E-05	0.00E+00	0.00E+00	1.26E-04	5.86E-04
WMA-B-BX-BY	UPR-200-E-108	7.42E-04	3.27E+01	0.00E+00	7.77E-02	1.38E-01	4.94E-02	0.00E+00	2.41E-04	0.00E+00	0.00E+00	7.77E-02	1.99E-04	0.00E+00	0.00E+00	1.12E-01	2.28E-02	8.42E+00	7.85E-01	2.79E+01	4.98E+00	8.84E+00	9.29E-02	0.00E+00	9.52E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03	7.06E-01
WMA-B-BX-BY	UPR-200-E-109	5.68E-04	5.07E+01	0.00E+00	5.71E-02	9.22E-02	2.08E-02	0.00E+00	1.77E-04	0.00E+00	0.00E+00	5.21E-02	1.67E-04	0.00E+00	0.00E+00	8.20E-02	3.41E-01	1.01E+02	4.07E+00	6.16E+00	3.66E+00	6.50E+00	0.00E+00	0.00E+00	1.87E+00	0.00E+00	3.78E-04	0.00E+00	0.00E+00	3.78E-03	1.76E-02
WMA-B-BX-BY	UPR-200-E-110	1.93E-02	1.08E+03	0.00E+00	2.02E+00	6.90E+00	1.82E+00	0.00E+00	6.24E-03	5.17E-01	0.00E+00	1.92E+00	5.27E-03	0.00E+00	0.00E+00	2.90E+00	7.58E+00	2.06E+03	4.46E+01	4.33E+00	1.29E+02	1.37E+02	5.70E+00	7.22E+01	3.16E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E+01	5.97E-01
200-EA-1	UPR-200-E-117	6.60E-04	2.05E+01	3.89E-01	6.90E-02	5.87E-01	2.82E-04	0.00E+00	2.14E-04	2.46E-06	3.08E-02	7.05E-02	0.00E+00	6.44E-03	0.00E+00	9.90E-02	1.98E-01	1.23E+01	1.45E+01	5.57E+00	1.40E+00	4.71E+00	1.95E-01	8.18E-03	4.47E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-01	2.05E-02
WMA-A-AX	UPR-200-E-117	6.60E-04	2.05E+01	3.89E-01	6.90E-02	5.87E-01	2.82E-04	0.00E+00	2.14E-04	2.46E-06	3.08E-02	7.05E-02	0.00E+00	6.44E-03	0.00E+00	9.90E-02	1.98E-01	1.23E+01	1.45E+01	5.57E+00	1.40E+00	4.71E+00	1.95E-01	8.18E-03	4.47E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-01	2.05E-02
WMA-A-AX	UPR-200-E-119	1.02E-07	3.16E-03	6.01E-05	1.06E-05	9.05E-05	4.34E-08	0.00E+00	3.29E-08	3.79E-10	4.75E-06	1.09E-05	0.00E+00	9.93E-07	0.00E+00	1.53E-05	3.06E-05	1.89E-03	2.23E-03	8.60E-04	2.16E-04	7.26E-04	3.01E-05	1.26E-06	6.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.06E-05	3.16E-06
200-IS-1	UPR-200-E-145	6.25E-03	1.40E-01	0.00E+00	7.22E-04	6.77E-04	0.00E+00	0.00E+00	2.31E-05	0.00E+00	0.00E+00	3.45E-04	0.00E+00	5.64E-05	0.00E+00	1.23E-01	7.65E+01	9.53E+01	0.00E+00	0.00E+00	1.67E+00	0.00E+00	0.00E+00	1.55E-01	0.00E+00	0.00E+00	3.13E-05	0.00E+00	0.00E+00	3.13E-05	5.41E+00
WMA-C	UPR-200-E-16	1.89E-04	1.04E+01	4.35E+00	1.98E-02	3.04E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-02	1.71E-02	6.61E-06	0.00E+00	0.00E+00	2.84E-02	1.12E-02	8.10E+00	6.92E+00	4.26E-02	0.00E+00	1.61E-01	5.60E-02	0.00E+00	4.67E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-04	5.87E-03
200-IS-1	UPR-200-E-3	3.30E-04	1.86E+01	0.00E+00	3.46E-02	1.18E-01	3.12E-02	0.00E+00	1.07E-04	8.87E-03	0.00E+00	3.29E-02	9.04E-05	0.00E+00	0.00E+00	4.96E-02	1.30E-01	3.54E+01	7.65E-01	7.43E-02	2.21E+00	2.34E+00	9.77E-02	1.24E+00	5.42E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.76E-01	1.02E-02
WMA-B-BX-BY	UPR-200-E-38	2.04E-02	1.96E+03	2.12E+02	2.13E+00	3.36E+01	2.17E-02	0.00E+00	6.61E-03	2.87E-03	2.07E+00	2.18E+00	9.35E-04	3.63E-01	0.00E+00	3.06E+00	1.68E+01	1.59E+03	8.15E+02	2.26E+02	1.25E+01	1.85E+02	6.02E+00	7.47E-01	5.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.59E+00	6.33E-01
200-CP-1	UPR-200-E-39	1.52E-03	2.09E+00	0.00E+00	1.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.80E-05	0.00E+00	0.00E+00	5.47E-01	1.19E-02	6.23E+00	0.00E+00	4.36E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.95E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E+00	2.06E-01
200-EA-1	UPR-200-E-40	1.17E-04	1.61E-01	0.00E+00	1.22E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-06	0.00E+00	0.00E+00	4.21E-02	9.14E-04	4.80E-01	0.00E+00	3.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.93E-02	1.58E-02
WMA-B-BX-BY	UPR-200-E-6	3.85E-03	2.17E+02	0.00E+00	4.03E-01	1.38E+00	3.64E-01	0.00E+00	1.25E-03	1.03E-01	0.00E+00	3.84E-01	1.05E-03	0.00E+00	0.00E+00	5.79E-01	1.52E+00	4.13E+02	8.93E+00	8.67E-01	2.58E+01	2.73E+01	1.14E+00	1.44E+01	6.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.55E+00	1.19E-01
200-IS-1	UPR-200-E-7	1.89E-02	4.50E+01	0.00E+00	1.15E-01	4.15E-01	1.06E-01	7.67E-05	0.00E+00	0.00E+00	0.00E+00	1.06E-01	2.93E-04	1.68E-02	0.00E+00	1.65E-01	5.17E+00	9.13E+01	2.84E-03	2.48E-01	5.39E+00	2.87E+00	1.62E-01	5.22E+00	1.19E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-09	4.40E-03
WMA-B-BX-BY	UPR-200-E-73	3.47E-04	1.53E+01	0.00E+00	3.63E-02	6.43E-02	2.31E-02	0.00E+00	1.13E-04	0.00E+00	0.00E+00	3.63E-02	9.29E-05	0.00E+00	0.00E+00	5.21E-02	1.07E-02	3.94E+00	3.67E-01	1.30E+01	2.33E+00	4.13E+00	4.34E-02	0.00E+00	4.45E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-04	3.30E-01
WMA-B-BX-BY	UPR-200-E-74	3.85E-05	1.73E-01	0.00E+00	4.03E-03	1.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-03	0.00E+00	0.00E+00	0.00E+00	1.39E-02	1.04E-03	3.75E-01	4.26E-02	4.55E-03	0.00E+00	1.48E-02	0.00E+00	0.00E+00	4.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-06
WMA-B-BX-BY	UPR-200-E-75	3.85E-03	2.17E+02	0.00E+00	4.03E-01	1.38E+00	3.64E-01	0.00E+00	1.25E-03	1.03E-01	0.00E+00	3.84E-01	1.05E-03	0.00E+00	0.00E+00	5.79E-01	1.52E+00	4.13E+02	8.93E+00	8.67E-01	2.58E+01	2.73E+01	1.14E+00	1.44E+01	6.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.55E+00	1.19E-01
200-IS-1	UPR-200-E-77	3.47E-05	1.52E+00	0.00E+00	3.63E-03	6.33E-03	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.57E-03	9.29E-06	0.00E+00	0.00E+00	5.21E-03	1.05E-03	4.00E-01	2.65E-02	1.30E+00	2.33E-01	4.13E-01	4.27E-03	0.00E+00	4.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-05	3.30E-02
200-IS-1	UPR-200-E-78	1.54E-04	7.85E+00	0.00E+00	4.15E-01	6.13E-02	0.00E+00	0.00E+00	4.99E-05	0.00E+00	7.00E-02	3.62E-02	0.00E+00	0.00E+00	0.00E+00	3.03E-02	5.34E-01	7.62E+00	2.06E+00	4.53E-02	0.00E+00	9.98E-01	0.00E+00	0.00E+00	2.68E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.46E-03	4.77E-03
200-IS-1	UPR-200-E-79	3.85E-03	4.35E+02	2.19E+00	4.04E-01	1.82E+00	3.71E-01	0.00E+00	1.25E-03	9.60E-02	0.00E+00	4.13E-01	0.00E+00	0.00E+00	0.00E+00	5.81E-01	3.39E+00	8.39E+02	3.29E+01	3.53E+01	2.59E+01	4.60E+01	1.14E+00	1.39E+01	1.67E+01	0.00E+00	2.34E-03	0.00E+00	0.00E+00	6.11E+00	1.20E-01
200-CB-1	UPR-200-E-80	3.85E-03	1.69E+00	0.00E+00	4.03E-03	7.03E-03	2.52E-03	8.63E-10	2.22E-09	1.39E-07	0.00E+00	3.97E-03	1.03E-05	1.90E-07	0.00E+00	5.79E-03	1.23E-03	4.45E-01	2.95E-02	1.44E+00	2.58E-01	4.58E-01	4.75E-03	7.71E-05	4.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.56E-05	3.66E-02
WMA-C	UPR-200-E-81	1.36E-01	5.08E+03	2.31E+03	1.43E+01	2.17E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E+01	1.22E+01	4.63E-03	0.00E+00	0.00E+00	2.05E+01	1.34E+01	5.81E+03	1.78E+03	3.07E+01	0.00E+00	8.82E+01	0.00E+00	0.00E+00	5.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-02	4.22E+00
WMA-C	UPR-200-E-82	1.08E-02	5.29E+02	3.59E+01	1.13E+00	8.79E+00	3.67E-03	0.00E+00	3.49E-03	4.87E-04	1.44E+00	1.15E+00	4.03E-04	6.15E-02	0.00E+00	1.62E+00	4.49E+00	3.23E+02	3.45E+02	3.99E+01	2.12E+00	1.18E+02	3.19E+00	1.27E-01	1.56E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E+00	3.34E-01
200-IS-1	UPR-200-E-84	6.43E-03	6.56E-02	0.00E+00	7.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E+00	0.00E+00	0.00E+00	0.00E+00	3.63E-02	0.00E+00	0.00E+00	6.50E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.81E-04
200-CB-1	UPR-200-E-85	2.48E-03	2.37E+02	2.57E+01	2.59E-01	4.07E+00	2.63E-03	0.00E+00	8.01E-04	3.48E-04	2.51E-01	2.64E-01	1.13E-04	4.40E-02	0.00E+00	3.71E-01	2.03E+00	1.92E+02	9.88E+01	2.74E+01	1.52E+00	2.24E+01	7.31E-01	9.06E-02	6.23E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E+00	7.67E-02
200-IS-1	UPR-200-E-86	6.43E-02	1.93E+03	2.86E+01	6.73E+00	4.98E+01	2.07E-02	0.00E+00	2.08E-02	1.81E-04	4.63E+00	6.87E+00	5.29E-04	4.73E-01	0.00E+00	9.66E+00	1.81E+01	1.02E+03	1.51E+03	4.13E+02	1.03E+02	5.34E+02	1.90E+01	6.01E-01	4.76E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.29E+01	1.99E+00
200-CB-1	UPR-200-E-87	2.87E-02	2.46E+03	0.00E+00	4.44E+02	1.35E+01	6.50E+02	2.94E+02	0.00E+00	0.00E+00	0.00E+00	3.47E+00	7.63E-03	1.41E+02	0.00E+00	3.28E+02	3.45E+02	3.27E+03	1.73E-03	4.91E+02	4.09E+02	1.04E+01	0.00E+00	1.96E+02	3.89E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-11	7.73E-04
200-EA-1	UPR-200-E-9	4.16E-02	3.72E+03	0.00E+00	4.19E+00	6.76E+00	1.53E+00	0.00E+00	1.30E-02	0.00E+00	0.00E+00	3.82E+00	1.23E-02	0.00E+00	0.00E+00	6.01E+00	2.50E+01	7.41E+03	2.99E+02	4.52E+02	2.68E+02	4.77E+02	0.00E+00	0.00E+00	1.37E+02	0.00E+00	2.77E-02	0.00E+00	0.00E+00	2.77E-01	1.29E+00
WMA-TX-TY	UPR-200-W-100	9.63E-03	5.42E+02	0.00E+00	1.01E+00	3.45E+00	9.10E-01	0.00E+00	3.12E-03	2.59E-01	0.00E+00	9.59E-01	2.64E-03	0.00E+00	0.00E+00	1.45E+00	3.79E+00	1.03E+03	2.23E+01	2.17E+00	6.46E+01	6.83E+01	2.85E+00	3.61E+01	1.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E+01	2.98E-01
200-WA-1	UPR-200-W-101	4.50E-03	1.01E-01	0.00E+00	5.20E-04	4.88E-04	0.00E+00	0.00E+00	1.66E-05	0.00E+00	0.00E+00	2.49E-04	0.00E+00	4.07E-05	0.00E+00	8.91E-02	5.52E+01	6.87E+01	0.00E+00	0.00E+00	1.20E+00	0.00E+00	0.00E+00	1.12E-01	0.00E+00	0.00E+00	2.26E-05	0.00E+00	0.00E+00	2.26E-05	3.90E+00
200-IS-1	UPR-200-W-102	2.87E-02	2.33E+03	0.00E+00	3.92E+02	1.34E+01	5.73E+02	2.60E+02	0.00E+00	0.00E+00	0.00E+00	3.45E+00	7.63E-03	1.24E+02	0.00E+00	2.90E+02	3.44E+02	3.26E+03	2.48E-03	4.34E+02	3.73E+02	1.03E+01	0.00E+00	1.95E+02	3.87E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.09E-11	7.69E-04
200-WA-1	UPR-200-W-103	2.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E+02	0.00E+00	1.35E+01	0.00E+00	0.00E+00	3.28E-07
WMA-TX-TY	UPR-200-W-12	1.89E-05	2.14E+00	1.08E-02	1.99E-03	8.93E-03	1.82E-03	0.00E+00	6.16E-06	4.72E-04	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	2.85E-03	1.66E-02	4.12E+00	1.62E-01	1.74E-01	1.27E-01	2.26E-01	5.62E-03	6.81E-02	8.20E-02	0.00E+00	1.15E-05	0.00E+00	0.00E+00	3.00E-02	5.88E-04
WMA-TX-TY	UPR-200-W-127	3.30E-04	7.20E-04	0.00E+00	1.45E-05	1.67E-04	0.00E+00	0.00E+00	6.66E-06	0.00E+00	1.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.40E-03	2.46E-04	1.71E-04	0.00E+00	0.00E+00	0.00E+00	4.70E-03	7.20E-04	8.33E-05	1.25E-03	0.00E+00	0.00E+00	0.00E+00	4.67E-03	0.00E+00	9.96E-08
200-IS-1	UPR-200-W-130	3.30E-04	2.05E-01	0.00E+00	2.10E-04	4.19E-07	0.00E+00	0.00E+00	7.54E-06	0.00E+00	0.00E+00	1.68E-06	0.00E+00	7.96E-03	1.01E-05	8.38E-05	2.05E+00	2.23E+00	1.47E-02	1.05E-02	1.63E-04	0.00E+00	0.00E+00	4.97E-01	9.56E-02	2.51E-05	5.03E-03	0.00E+00	0.00E+00	0.00E+00	1.34E-06
200-IS-1	UPR-200-W-131	1.51E-05	1.35E+00	0.00E+00	1.52E-03	2.46E-03	5.55E-04	0.00E+00	4.71E-06	0.00E+00	0.00E+00	1.39E-03	4.46E-06	0.00E+00	0.00E+00	2.18E-03	9.09E-03	2.69E+00	1.08E-01	1.64E-01	9.75E-02	1.73E-01	0.00E+00	0.00E+00	4.99E-02	0.00E+00	1.01E-05	0.00E+00	0.00E+00	1.01E-04	4.69E-04
WMA-U	UPR-200-W-132	1.89E-03	8.33E+01	0.00E+00	1.98E-01	3.51E-01	1.26E-01	0.00E+00	6.14E-04	0.00E+00	0.00E+00	1.98E-01	5.07E-04	0.00E+00	0.00E+00	2.84E-01	5.82E-02	2.15E+01	2.00E+00	7.12E+01	1.27E+01	2.25E+01	2.37E-01	0.00E+00	2.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-03	1.80E+00
200-IS-1	UPR-200-W-135	3.79E-03	1.67E+02	0.00E+00	3.96E-01	7.02E-01	2.52E-01	0.00E+00	1.23E-03	0.00E+00	0.00E+00	3.96E-01	1.01E-03	0.00E+00	0.00E+00	5.69E-01	1.16E-01	4.29E+01	4.00E+00	1.42E+02	2.54E+01	4.50E+01	4.74E-01	0.00E+00	4.85E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.82E-03	3.60E+00
200-WA-1	UPR-200-W-138	1.49E-02	3.34E-01	0.00E+00	1.72E-03	1.61E-03	0.00E+00	0.00E+00	5.49E-05	0.00E+00	0.00E+00	8.21E-04	0.00E+00	1.34E-04	0.00E+00	2.94E-01	1.82E+02	2.27E+02	0.00E+00	0.00E+00	3.97E+00	0.00E+00	0.00E+00	3.69E-01	0.00E+00	0.00E+00	7.46E-05	0.00E+00	0.00E+00	7.46E-05	1.29E+01
200-WA-1	UPR-200-W-163	3.35E-02	7.05E-01	0.00E+00	7.97E-03	3.20E-03	4.24E-08	1.74E-11	1.03E-04	2.79E-09	0.00E+00	1.63E-03	7.85E-12	2.67E-04	0.00E+00	5.84E-01	3.62E+02	4.53E+02	4.00E-07	5.14E-06	7.88E+00	2.27E-02	8.28E-08	7.31E-01	4.07E-01	0.00E+00	1.48E-04	0.00E+00	0.00E+00	1.48E-04	2.22E+01
200-WA-1	UPR-200-W-19	3.85E-05	5.81E-01	0.00E+00	4.27E-04	6.89E-04	1.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-04	0.00E+00	0.00E+00	0.00E+00	6.13E-04	2.55E-03	4.39E-02	3.04E-02	4.60E-02	2.73E-02	1.21E+00	0.00E+00	0.00E+00	1.40E-02	0.00E+00	2.83E-06	7.91E-03	2.64E-02	2.83E-05	1.44E-02
200-IS-1	UPR-200-W-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200-WA-1	UPR-200-W-20	7.70E-04	1.68E-03	0.00E+00	3.38E-05	3.89E-04	0.00E+00	0.00E+00	1.56E-05	0.00E+00	4.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-02	5.74E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00	1.10E-02	1.68E-03	1.94E-04	2.92E-03	0.00E+00	0.00E+00	0.00E+00	1.09E-02	0.00E+00	2.32E-07
200-IS-1	UPR-200-W-21	1.11E-02	4.88E+02	0.00E+00	1.16E+00	2.06E+00	7.38E-01	0.00E+00	3.60E-03	0.00E+00	0.00E+00	1.16E+00	2.97E-03	0.00E+00	0.00E+00	1.67E+00	3.41E-01	1.26E+02	1.17E+01	4.17E+02	7.43E+01	1.32E+02	1.39E+00	0.00E+00	1.42E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-02	1.05E+01
WMA-U	UPR-200-W-24	1.37E-04	6.02E+00	0.00E+00	1.44E-02	2.51E-02	9.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-02	3.68E-05	0.00E+00	0.00E+00	2.06E-02	4.16E-03	1.58E+00	1.05E-01	5.15E+00	9.22E-01	1.64E+00	1.69E-02	0.00E+00	1.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-04	1.31E-01
200-IS-1	UPR-200-W-28	2.31E-03	2.06E+02	0.00E+00	2.32E-01	3.75E-01	8.48E-02	0.00E+00	7.20E-04	0.00E+00	0.00E+00	2.12E-01	6.81E-04	0.00E+00	0.00E+00	3.34E-01	1.39E+00	4.11E+02	1.66E+01	2.51E+01	1.49E+01	2.64E+01	0.00E+00	0.00E+00	7.63E+00	0.00E+00	1.54E-03	0.00E+00	0.00E+00	1.54E-02	7.16E-02
200-IS-1	UPR-200-W-29	3.79E-03	2.13E+02	0.00E+00	3.96E-01	1.36E+00	3.58E-01	0.00E+00	1.23E-03	1.02E-01	0.00E+00	3.77E-01	1.04E-03	0.00E+00	0.00E+00	5.69E-01	1.49E+00	4.06E+02	8.77E+00	8.52E-01	2.54E+01	2.68E+01	1.12E+00	1.42E+01	6.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.46E+00	1.17E-01
200-IS-1	UPR-200-W-32	3.30E-04	7.42E-03	0.00E+00	3.81E-05	3.58E-05	0.00E+00	0.00E+00	1.22E-06	0.00E+00	0.00E+00	1.82E-05	0.00E+00	2.98E-06	0.00E+00	6.52E-03	4.04E+00	5.03E+00	0.00E+00	0.00E+00	8.81E-02	0.00E+00	0.00E+00	8.18E-03	0.00E+00	0.00E+00	1.66E-06	0.00E+00	0.00E+00	1.66E-06	2.86E-01
200-WA-1	UPR-200-W-33	2.31E-06	1.02E-01	0.00E+00	2.42E-04	4.28E-04	1.54E-04	0.00E+00	7.49E-07	0.00E+00	0.00E+00	2.42E-04	6.19E-07	0.00E+00	0.00E+00	3.47E-04	7.11E-05	2.62E-02	2.44E-03	8.69E-02	1.55E-02	2.75E-02	2.89E-04	0.00E+00	2.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.38E-06	2.20E-03
200-IS-1	UPR-200-W-38	7.70E-03	3.39E+02	0.00E+00	8.06E-01	1.43E+00	5.13E-01	0.00E+00	2.50E-03	0.00E+00	0.00E+00	8.06E-01	2.06E-03	0.00E+00	0.00E+00	1.16E+00	2.37E-01	8.74E+01	8.14E+00	2.90E+02	5.16E+01	9.16E+01	9.64E-01	0.00E+00	9.87E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-02	7.32E+00

OPU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-WA-1	UPR-200-W-39	3.85E-04	8.66E-03	0.00E+00	4.45E-05	4.17E-05	0.00E+00	0.00E+00	1.42E-06	0.00E+00	0.00E+00	2.13E-05	0.00E+00	3.48E-06	0.00E+00	7.61E-03	4.71E+00	5.87E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	9.54E-03	0.00E+00	0.00E+00	1.93E-06	0.00E+00	0.00E+00	1.93E-06	3.33E-01
200-CR-1	UPR-200-W-61	9.24E-04	1.07E+02	1.90E+01	8.70E-02	2.39E+00	0.00E+00	0.00E+00	2.70E-04	0.00E+00	2.62E-11	8.89E-02	3.33E-05	2.54E-02	0.00E+00	1.25E-01	8.70E-01	1.16E+02	2.94E+01	1.87E-01	0.00E+00	1.54E+00	2.46E-01	0.00E+00	2.82E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-01	2.58E-02
200-WA-1	UPR-200-W-82	1.54E-03	3.36E-03	0.00E+00	6.76E-05	7.77E-04	0.00E+00	0.00E+00	3.11E-05	0.00E+00	8.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-02	1.15E-03	7.99E-04	0.00E+00	0.00E+00	0.00E+00	2.19E-02	3.36E-03	3.89E-04	5.83E-03	0.00E+00	0.00E+00	0.00E+00	2.18E-02	0.00E+00	4.65E-07
200-WA-1	UPR-200-W-95	3.97E-05	5.08E+00	9.07E-01	4.15E-03	1.14E-01	0.00E+00	0.00E+00	1.29E-05	0.00E+00	0.00E+00	4.24E-03	1.59E-06	1.21E-03	0.00E+00	5.96E-03	4.15E-02	5.53E+00	1.40E+00	8.92E-03	0.00E+00	7.34E-02	1.17E-02	0.00E+00	1.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.45E-03	1.23E-03
200-CR-1	UPR-200-W-96	1.04E-03	2.18E-03	4.52E-04	2.07E-06	9.77E-05	0.00E+00	0.00E+00	4.54E-09	0.00E+00	7.50E-07	1.93E-06	0.00E+00	3.27E-08	0.00E+00	6.69E-06	1.34E-05	1.84E-03	9.05E-04	1.00E-05	0.00E+00	3.82E-05	1.06E-05	0.00E+00	5.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.11E-06	5.45E-08
200-IS-1	UPR-200-W-97	2.00E-03	8.59E+01	0.00E+00	2.01E-01	7.67E-01	1.84E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-01	5.13E-04	0.00E+00	0.00E+00	2.89E-01	5.29E-01	1.53E+02	9.81E-03	4.32E-01	1.29E+01	9.49E+00	5.69E-01	8.33E+00	2.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-08	1.54E-02
200-IS-1	UPR-200-W-98	3.30E-04	1.45E+01	0.00E+00	3.45E-02	6.02E-02	2.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-02	8.83E-05	0.00E+00	0.00E+00	4.96E-02	9.98E-03	3.80E+00	2.52E-01	1.24E+01	2.21E+00	3.93E+00	4.06E-02	0.00E+00	4.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-04	3.14E-01

Appendix C

Standard Deviation on Chemical Inventory from SIM-v2 Estimates

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OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-CB-1	200-E-100	6.57E-03	2.49E-02	9.29E-07	4.22E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.63E-05	2.63E-06	3.68E-10	6.03E-05	0.00E+00	2.27E-01	8.93E-03	6.29E-03	2.23E-05	9.04E-01	1.54E-04	1.24E-01	2.97E-02	1.59E-03	1.05E-02	0.00E+00	1.73E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-EA-1	200-E-103	8.16E-04	9.78E-04	2.94E-07	6.20E-05	3.54E-05	0.00E+00	0.00E+00	6.80E-12	1.11E-10	3.55E-09	2.96E-05	1.36E-12	5.17E-10	0.00E+00	2.71E-02	5.01E-01	4.10E-01	6.88E-07	2.98E-07	1.94E-01	9.41E-02	7.20E-09	7.62E-04	1.01E-03	0.00E+00	1.49E-08	0.00E+00	0.00E+00	6.26E-08	1.25E-09
200-CP-1	200-E-107	8.16E-04	4.62E+00	0.00E+00	1.08E-01	4.29E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-01	0.00E+00	0.00E+00	0.00E+00	3.71E-01	2.78E-02	1.00E+01	1.14E+00	1.22E-01	0.00E+00	3.96E-01	0.00E+00	0.00E+00	1.16E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-09
200-EA-1	200-E-25	3.32E-03	4.05E-03	0.00E+00	3.00E-04	0.00E+00	0.00E+00	0.00E+00	4.44E-05	0.00E+00	9.56E-05	0.00E+00	0.00E+00	4.32E-05	0.00E+00	7.74E-02	1.10E-03	7.29E-03	0.00E+00	0.00E+00	0.00E+00	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-04	0.00E+00	1.95E-06
200-CB-1	200-E-28	1.20E-01	9.62E-02	0.00E+00	1.13E-02	0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00	3.45E-03	0.00E+00	0.00E+00	1.66E-03	0.00E+00	2.79E+00	3.97E-02	2.63E-01	0.00E+00	0.00E+00	0.00E+00	3.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-02	0.00E+00	6.66E-05
200-EA-1	200-E-4	2.53E-03	6.90E-03	0.00E+00	3.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-05	0.00E+00	0.00E+00	9.95E-05	0.00E+00	6.39E-02	2.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04	3.44E-03	0.00E+00	0.00E+00	0.00E+00	4.21E-03	0.00E+00	1.68E-06
200-EA-1	200-E-41	6.77E-04	2.68E-03	1.00E-07	4.55E-05	5.71E-07	1.63E-07	6.69E-11	1.72E-10	1.07E-08	7.15E-06	1.84E-07	2.76E-11	6.50E-06	0.00E+00	2.44E-02	9.63E-04	6.62E-04	1.59E-06	9.74E-02	1.07E-05	1.34E-02	3.20E-03	1.72E-04	1.14E-03	0.00E+00	1.85E-14	0.00E+00	0.00E+00	6.68E-07	5.63E-07
200-EA-1	200-E-54	2.05E-02	4.14E-02	1.25E-05	2.62E-03	1.50E-03	0.00E+00	0.00E+00	2.88E-10	4.70E-09	1.50E-07	1.25E-03	3.69E-11	2.19E-08	0.00E+00	1.15E+00	2.12E+01	1.74E+01	2.91E-05	1.26E-05	8.22E+00	3.98E+00	3.05E-07	3.22E-02	4.26E-02	0.00E+00	6.32E-07	0.00E+00	0.00E+00	2.65E-06	6.94E-08
200-CB-1	200-E-55	6.48E-03	3.47E-02	0.00E+00	5.42E-04	2.31E-04	6.59E-05	2.70E-08	8.28E-05	4.34E-06	1.70E-04	7.44E-05	1.04E-08	7.73E-05	0.00E+00	1.40E-01	2.74E-03	5.30E-02	6.22E-04	8.00E-03	4.34E-03	1.96E-02	1.29E-04	2.41E-03	7.02E-04	0.00E+00	0.00E+00	0.00E+00	1.67E-03	2.70E-04	1.92E-04
200-EA-1	200-E-56	1.54E-02	8.81E+02	0.00E+00	4.65E+01	6.88E+00	0.00E+00	0.00E+00	5.61E-03	0.00E+00	7.86E+00	4.06E+00	0.00E+00	0.00E+00	0.00E+00	3.40E+00	6.00E+01	8.55E+02	2.32E+02	5.09E+00	0.00E+00	1.12E+02	0.00E+00	0.00E+00	3.01E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E+00	5.26E-01
200-EA-1	200-E-57	2.31E-02	1.32E+03	0.00E+00	6.98E+01	1.03E+01	0.00E+00	0.00E+00	8.41E-03	0.00E+00	1.18E+01	6.09E+00	0.00E+00	0.00E+00	0.00E+00	5.10E+00	9.00E+01	1.28E+03	3.48E+02	7.63E+00	0.00E+00	1.68E+02	0.00E+00	0.00E+00	4.52E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E+00	7.89E-01
WMA-B-BX-BY	200-E-60	1.06E-03	9.39E+00	0.00E+00	2.19E-01	8.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-01	0.00E+00	0.00E+00	0.00E+00	7.53E-01	5.64E-02	2.03E+01	2.31E+00	2.47E-01	0.00E+00	8.04E-01	0.00E+00	0.00E+00	2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-09
200-CP-1	200-E-62	5.79E-03	2.61E-02	0.00E+00	4.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.52E-01	0.00E+00	1.05E-01	2.50E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-04
200-CP-1	200-E-63	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-64	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-65	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-67	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-EA-1	200-E-68	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-69	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-70	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-71	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-72	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-73	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-74	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-75	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-76	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-77	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-78	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-79	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-80	5.79E-03	2.61E-02	0.00E+00	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.92E-01	1.33E-02	1.10E-02	0.00E+00	7.48E-01	0.00E+00	1.05E-01	2.48E-02	1.32E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04
200-CP-1	200-E-81	1.62E-02	1.94E-02	5.84E-06	1.23E-03	7.02E-04	0.00E+00	0.00E+00	1.35E-10	2.20E-09	7.04E-08	5.87E-04	2.71E-11	1.03E-08	0.00E+00	5.38E-01	9.94E+00	8.14E+00	1.37E-05	5.92E-06	3.85E+00	1.87E+00	1.43E-07	1.51E-02	2.00E-02	0.00E+00	2.96E-07	0.00E+00	0.00E+00	1.24E-06	3.52E-08
200-EA-1	200-E-82	5.86E-03	2.64E-02	0.00E+00	4.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-05	0.00E+00	1.94E-01	1.34E-02	1.11E-02	0.00E+00	7.53E-01	0.00E+00	1.05E-01	2.50E-02	1.33E-03	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04
200-CP-1	200-E-84	7.98E-03	3.59E-02	0.00E+00	6.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.48E-05	0.00E+00	2.64E-01	1.83E-02	1.52E-02	0.00E+00	1.03E+00	0.00E+00	1.44E-01	3.42E-02	1.81E-03	1.44E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-04
200-CB-1	200-E-85	4.44E-02	5.31E-02	1.60E-05	3.37E-03	1.92E-03	0.00E+00	0.00E+00	3.69E-10	6.04E-09	1.93E-07	1.61E-03	7.48E-11	2.81E-08	0.00E+00	1.47E+00	2.72E+01	2.23E+01	3.74E-05	1.62E-05	1.06E+01	5.11E+00	3.91E-07	4.14E-02	5.47E-02	0.00E+00	8.12E-07	0.00E+00	0.00E+00	3.40E-06	9.13E-08
200-CB-1	200-E-88	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-CB-1	200-E-89	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-CB-1	200-E-90	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-CB-1	200-E-91	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-CB-1	200-E-92	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-CB-1	200-E-93	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-EA-1	200-E-94	6.51E-03	2.46E-02	9.19E-07	4.17E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.56E-05	2.63E-06	3.68E-10	5.96E-05	0.00E+00	2.24E-01	8.83E-03	6.23E-03	2.23E-05	8.94E-01	1.54E-04	1.23E-01	2.93E-02	1.58E-03	1.04E-02	0.00E+00	1.71E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-EA-1	200-E-95	6.32E-03	3.53E-02	0.00E+00	5.24E-04	2.35E-04	6.72E-05	2.76E-08	7.89E-05	4.43E-06	1.64E-04	7.58E-05	1.06E-08	7.44E-05	0.00E+00	1.35E-01	2.72E-03	5.39E-02	6.34E-04	8.15E-03	4.42E-03	1.90E-02	1.31E-04	2.46E-03	7.16E-04	0.00E+00	0.00E+00	0.00E+00	1.62E-03	2.75E-04	1.94E-04
200-CB-1	200-E-97	6.51E-03	3.54E-02	0.00E+00	5.44E-04	2.35E-04	6.72E-05	2.76E-08	8.30E-05	4.43E-06	1.70E-04	7.58E-05	1.06E-08	7.75E-05	0.00E+00	1.40E-01	2.77E-03	5.40E-02	6.34E-04	8.15E-03	4.42E-03	1.96E-02	1.31E-04	2.46E-03	7.16E-04	0.00E+00	0.00E+00	0.00E+00	1.67E-03	2.75E-04	1.94E-04
200-CB-1	200-E-98	5.39E-03	2.95E-02	0.00E+00	4.49E-04	1.96E-04	5.60E-05	2.30E-08	6.84E-05	3.69E-06	1.41E-04	6.32E-05	8.83E-09	6.40E-05	0.00E+00	1.16E-01	2.30E-03	4.50E-02	5.29E-04	6.79E-03	3.69E-03	1.62E-02	1.10E-04	2.05E-03	5.97E-04	0.00E+00	0.00E+00	0.00E+00	1.38E-03	2.29E-04	1.62E-04
200-CB-1	200-E-99	6.57E-03	2.49E-02	9.29E-07	4.22E-04	8.17E-06	2.33E-06	9.57E-10	2.46E-09	1.54E-07	6.63E-05	2.63E-06	3.68E-10	6.03E-05	0.00E+00	2.27E-01	8.93E-03	6.29E-03	2.23E-05	9.04E-01	1.54E-04	1.24E-01	2.97E-02	1.59E-03	1.05E-02	0.00E+00	1.73E-13	0.00E+00	0.00E+00	9.56E-06	6.73E-06
200-WA-1	200-W-22	1.15E-06	4.10E-05	0.00E+00	2.11E-07	1.98E-07	0.00E+00	0.00E+00	6.74E-09	0.00E+00	0.00E+00	1.01E-07	0.00E+00	1.65E-08	0.00E+00	3.61E-05	2.23E-02	2.78E-02	0.00E+00	0.00E+00	4.87E-04	0.00E+00	0.00E+00	4.52E-05	0.00E+00	0.00E+00	9.16E-09	0.00E+00	0.00E+00	9.16E-09	1.44E-03
200-WA-1	200-W-42	3.72E-04	1.64E-02	0.00E+00	8.42E-05	7.90E-05	0.00E+00	0.00E+00	4.12E-06	0.00E+00	0.00E+00	4.02E-05	0.00E+00	6.58E-06	0.00E+00	1.44E-02	8.92E+00	1.11E+01	0.00E+00	0.00E+00	1.95E-01	0.00E+00	0.00E+00	1.79E-02	0.00E+00	0.00E+00	3.66E-06	0.00E+00	0.00E+00	3.66E-06	2.51E-05
200-WA-1	200-W-9	2.78E-02	2.05E+02	0.00E+00	4.77E+00	1.90E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.88E+00	0.00E+00	0.00E+00	0.00E+00	1.64E+01	1.23E+00	4.43E+02	5.04E+01	5.38E+00	0.00E+00	1.75E+01	0.00E+00	0.00E+00	5.13E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E-03
200-WA-1	200-W-PP	4.01E+01	0.00E+00	1.13E-01	1.15E-01	4.08E-03	0.00E+00	0.00E+00	4.08E-05	0.00E+00	1.22E-02	4.08E-03	0.00E+00	6.94E-03	0.00E+00	7.58E+00	3.79E-01	2.04E+02	0.00E+00	0.00E+00	5.30E+02	1.18E+04	0.00E+00	2.04E+02	1.21E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200-OA-1	2101-M-Pond	3.21E+01	1.63E+02	0.00E+00	8.66E+00	3.39E+01	0.00E+00	0.00E+00	1.36E+00	0.00E+00	3.39E+01	0.00E+00	0.00E+00	5.22E-01	0.00E+00	1.27E+03	6.45E+01	5.04E+01	0.00E+00	2.28E+03	0.00E+00	9.38E+02	1.50E+02	9.30E+00	2.53E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.79E-01
200-EA-1	216-A-1	4.02E-03	5.58E+02	0.00E+00	3.14E+01	1.41E+01	0.00E+00	0.00E+00	4.41E-02	0.00E+00	6.20E-01	3.81E+00	0.00E+00	0.00E+00	0.00E+00	7.52E+00	4.15E+00	3.66E+02	4.28E+02	1.13E+01	0.00E+00	1.42E+02	1.41E+01	0.00E+00	1.73E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E+00	1.36E+02
200-EA-1	216-A-10	5.97E+01	3.05E+03	0.00E+00	3.38E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-01	0.00E+00	1.54E+03	1.02E+02	1.96E+05	0.00E+00	4.81E+03	0.00E+00	1.81E+03	1.60E+02	8.61E+00	3.02E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E+01
200-CP-1	216-A-11	2.48E-03	2.00E-02	0.00E+00	3.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.98E-05	0.00E+00	1.60E-01	1.07E-02	8.99E-03	0.00E+00	6.06E-01	0.00E+00	8.48E-02	2.01E-02	9.48E-04	8.48E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-04
200-CP-1	216-A-12	2.41E-03	1.94E-02	0.00E+00	3.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-05	0.00E+00	1.56E-01	1.04E-02	8.74E-03	0.00E+00	5.85E-01	0.00E+00	8.19E-02	1.94E-02	9.21E-04	8.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-04
200-CP-1	216-A-13	3.86E-04	7.80E-04	2.35E-07	4.94E-05	2.82E-05	0.00E+00	0.00E+00	5.42E-12	8.86E-11	2.83E-09	2.36E-05	1.08E-12	4.12E-10	0.00E+00	2.16E-02	4.00E-01	3.27E-01	5.49E-07	2.38E-07	1.55E-01	7.51E-02	5.75E-09	6.08E-04	8.03E-04	0.00E+00	1.19E-08	0.00E+00	0.00E+00	5.00E-08	7.20E-10
200-CP-1	216-A-14	2.47E-05	5.00E-05	1.51E-08	3.17E-06	1.81E-06	0.00E+00	0.00E+00	3.48E-13	5.68E-12	1.81E-10	1.51E-06	7.94E-14	2.64E-11	0.00E+00	1.39E-03	2.56E-02	2.10E-02	3.52E-08	1.53E-08	9.93E-03	4.81E-03	3.68E-10	3.89E-05	5.15E-05	0.00E+00	7.64E-10	0.00E+00	0.00E+00	3.20E-09	7.17E-11
200-EA-1	216-A-15	2.41E-01	1.94E+00	0.00E+00	3.70E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-03	0.00E+00	1.56E+01	1.04E+00	8.74E-01	0.00E+00	5.85E+01	0.00E+00	8.19E+00	1.94E+00	9.21E-02	8.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-02
WMA-A-AX	216-A-16	3.33E-03	6.72E-03	2.03E-06	4.26E-04	2.43E-04	0.00E+00	0.00E+00	4.67E-11	7.64E-10	2.44E-08	2.04E-04	1.05E-11	3.55E-09	0.00E+00	1.87E-01	3.45E+00	2.82E+00	4.73E-06	2.05E-06	1.34E+00	6.47E-01	4.95E-08	5.24E-03	6.92E-03	0.00E+00	1.03E-07	0.00E+00	0.00E+00	4.31E-07	8.82E-09
WMA-A-AX	216-A-17	1.64E-03	3.31E-03	9.96E-07	2.10E-04	1.20E-04	0.00E+00	0.00E+00	2.30E-11	3.76E-10	1.20E-08	1.00E-04	5.16E-12	1.75E-09	0.00E+00	9.18E-02	1.70E+00	1.39E+00	2.33E-06	1.01E-06	6.57E-01	3.18E-01	2.44E-08	2.58E-03	3.40E-03	0.00E+00	5.05E-08	0.00E+00	0.00E+00	2.12E-07	4.34E-09
200-EA-1	216-A-18	1.99E-02	2.77E+03	0.00E+00	1.56E+02	6.98E+01	0.00E+00	0.00E+00	2.19E-01	0.00E+00	3.08E+00	1.89E+01	0.00E+00	0.00E+00	0.00E+00	3.73E+01	2.06E+01	1.81E+03	2.12E+03	5.59E+01	0.00E+00	7.04E+02	6.97E+01	0.00E+00	8.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E+01	6.72E+02
200-EA-1	216-A-19	1.12E-01	7.92E+03	0.00E+00	7.51E+03	1.64E+02	0.00E+00	0.00E+00	9.74E+00	0.00E+00	7.40E+00	3.05E+02	0.00E+00	0.00E+00	0.00E+00	1.34E+03	4.85E+01	4.25E+03	5.04E+03	2.01E+03	0.00E+00	1.66E+03	2.39E+03	0.00E+00	2.02E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E+02	3.90E+04
200-EA-1	216-A-2	5.16E-03	8.90E-01	0.00E+00	9.02E-03	6.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-04	0.00E+00	0.00E+00	0.00E+00	2.03E-02	0.00E+00	3.53E+02	0.00E+00	3.04E-02	0.00E+00	3.64E-01	1.59E-02	0.00E+00	2.76E-02	0.00E+00	0.00E+00	2.22E+04	9.53E+03	7.69E-03	1.24E+01
200-EA-1	216-A-20	8.54E-02	8.01E+02	0.00E+00	1.46E+02	2.01E+01	0.00E+00	0.00E+00	2.02E-01	0.00E+00	9.04E-01	7.79E+00	0.00E+00	3.43E-03	0.00E+00	2.73E+01	5.93E+00	5.22E+02	6.11E+02	4.03E+01	0.00E+00	2.03E+02	4.84E+01	3.10E-02	2.47E+01	0.00E+00	3.01E-01	0.00E+00	0.00E+00	6.03E+00	6.25E+02
200-EA-1	216-A-21	1.32E+00	7.20E+03	0.00E+00	5.46E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.39E-01	0.00E+00	0.00E+00	1.88E+03	4.09E+01	2.14E+04	0.00E+00	1.50E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.44E+03	1.57E+01
200-EA-1	216-A-22	6.88E-04	2.45E-02	0.00E+00	1.28E-04	1.18E-04	0.00E+00	0.00E+00	4.64E-06	0.00E+00	0.00E+00	6.02E-05	0.00E+00	1.03E-05	0.00E+00	2.34E-02	1.33E+01	1.66E+01	0.00E+00	3.49E-02	2.91E-01	4.89E-03	1.16E-03	2.70E-02	4.89E-04	0.00E+00	5.47E-06	0.00E+00	0.00E+00	5.47E-06	5.35E-01
WMA-A-AX	216-A-23A	8.46E-05	5.95E-04	1.05E-04	1.59E-04	0.00E+00	0.00E+00	0.00E+00	4.37E-06	0.00E+00	1.09E-04	0.00E+00	0.00E+00	1.20E-05	0.00E+00	5.27E-03	4.25E-04	1.45E-04	0.00E+00	0.00E+00	0.00E+00	2.90E-03	6.78E-04	3.71E-05	2.57E-04	0.00E+00	3.38E-04	0.00E+00	0.00E+00	0.00E+00	4.03E-08
WMA-A-AX	216-A-23B	8.46E-05	5.95E-04	1.05E-04	1.59E-04	0.00E+00	0.00E+00	0.00E+00	4.37E-06	0.00E+00	1.09E-04	0.00E+00	0.00E+00	1.20E-05	0.00E+00	5.27E-03	4.25E-04	1.45E-04	0.00E+00	0.00E+00	0.00E+00	2.90E-03	6.78E-04	3.71E-05	2.57E-04	0.00E+00	3.38E-04	0.00E+00	0.00E+00	0.00E+00	4.03E-08
200-PW-3	216-A-24	2.00E+01	2.97E+02	6.25E+00	1.47E+01	2.17E-04	0.00E+00	0.00E+00	2.61E-01	0.00E+00	6.56E+00	3.29E-05	0.00E+00	2.04E+00	0.00E+00	2.60E+03	1.05E+02	9.98E+01	0.00E+00	9.58E-03	0.00E+00	1.42E+03	3.37E+02	1.74E+01	1.48E+02	0.00E+00	1.68E+02	7.16E+03	3.07E+03	8.85E-03	2.03E+01
200-CW-1	216-A-25	4.16E+03	4.25E+04	6.89E-01	8.03E+02	1.70E+00	1.14E-05	0.00E+00	1.76E-01	1.51E-06	1.17E+01	4.32E-01	5.58E-03	1.06E+02	0.00E+00	3.46E+05	2.29E+04	1.92E+04	1.14E+02	1.25E+06	3.20E+03	1.90E+05	4.17E+04	2.35E+03	1.90E+04	2.67E+02	9.86E+02	0.00E+00	0.00E+00	2.10E+00	5.95E+02
200-EA-1	216-A-26	1.52E-04	1.82E-04	5.47E-08	1.15E-05	6.57E-06	0.00E+00	0.00E+00	1.26E-12	2.06E-11	6.59E-10	5.50E-06	2.66E-13	9.60E-11	0.00E+00	5.04E-03	9.31E-02	7.62E-02	1.28E-07	5.54E-08	3.61E-02	1.75E-02	1.34E-09	1.41E-04	1.87E-04	0.00E+00	2.77E-09	0.00E+00	0.00E+00	1.16E-08	3.32E-10
200-EA-1	216-A-26A	3.86E-05	7.80E-05	2.35E-08	4.94E-06	2.82E-06	0.00E+00	0.00E+00	5.42E-13	8.86E-12	2.83E-10	2.36E-06	1.20E-13	4.12E-11	0.00E+00	2.16E-03	4.00E-02	3.27E-02	5.49E-08	2.38E-08	1.55E-02	7.51E-03	5.75E-10	6.08E-05	8.03E-05	0.00E+00	1.19E-09	0.00E+00	0.00E+00	5.00E-09	9.28E-11
200-EA-1	216-A-27	4.82E-01	1.77E+02	6.76E-04	2.04E+01	9.80E-01	0.00E+00	0.00E+00	1.56E-08	2.55E-07	8.15E-06	7.83E-01	1.41E-01	1.19E-06	0.00E+00	6.24E+01	1.15E+03	1.03E+03	2.28E+00	5.03E+00	4.46E+02	2.16E+02	1.65E-05	1.75E+00	6.08E+00	0.00E+00	3.43E-05	0.00E+00	0.00E+00	1.87E-04	3.41E+01
200-EA-1	216-A-28	2.17E-03	1.54E-01	0.00E+00	7.94E-04	7.44E-04	0.00E+00	0.00E+00	2.54E-05	0.00E+00	0.00E+00	3.79E-04	0.00E+00	6.20E-05	0.00E+00	1.36E-01	8.41E+01	1.05E+02	0.00E+00	0.00E+00	1.83E+00	0.00E+00	0.00E+00	1.70E-01	0.00E+00	0.00E+00	3.45E-05	0.00E+00	0.00E+00	3.45E-05	7.00E+02
200-EA-1	216-A-3	5.73E-02	7.50E+00	0.00E+00	3.86E-02	3.62E-02	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	1.84E-02	2.87E-07	3.01E-03	0.00E+00	6.60E+00	4.09E+03	5.09E+03	2.08E-03	4.77E-04	8.91E+01	1.15E-02	0.00E+00	8.27E+00	5.13E-03	0.00E+00	1.67E-03	0.00E+00	0.00E+00	1.67E-03	1.36E+02
200-EA-1	216-A-30	6.37E+01	4.51E+03	1.10E+00	1.03E+02	4.02E+02	0.00E+00	0.00E+00	4.90E-04	1.20E-06	2.67E-02	1.04E+02	1.40E-08	2.49E+00	0.00E+00	1.03E+04	5.47E+03	1.04E+04	1.07E+03	3.03E+04	2.10E+03	4.38E+03	1.01E+03	5.79E+01	4.38E+02	0.00E+00	1.62E-04	0.00E+00	0.00E+00	6.79E-04	1.12E+02
200-PW-3	216-A-31	2.50E-03	3.60E-01	0.00E+00	2.25E-03	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.60E-05	0.00E+00	0.00E+00	0.00E+00	5.05E-03	0.00E+00	5.29E+01	0.00E+00	7.56E-03	0.00E+00	2.55E-01	3.95E-03	0.00E+00	1.25E-02	0.00E+00	0.00E+00	5.65E+03	2.42E+03	6.98E-03	1.04E+01

OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-CP-1	216-A-32	1.09E-04	2.21E-04	6.65E-08	1.40E-05	7.99E-06	0.00E+00	0.00E+00	1.53E-12	2.51E-11	8.01E-10	6.68E-06	3.59E-13	1.17E-10	0.00E+00	6.12E-03	1.13E-01	9.26E-02	1.55E-07	6.74E-08	4.38E-02	2.12E-02	1.63E-09	1.72E-04	2.27E-04	0.00E+00	3.37E-09	0.00E+00	0.00E+00	1.41E-08	3.36E-10
200-CP-1	216-A-35	5.10E-04	1.03E-03	3.11E-07	6.54E-05	3.73E-05	0.00E+00	0.00E+00	7.17E-12	1.17E-10	3.74E-09	3.12E-05	1.77E-12	5.45E-10	0.00E+00	2.86E-02	5.29E-01	4.33E-01	7.26E-07	3.15E-07	2.05E-01	9.92E-02	7.59E-09	8.03E-04	1.06E-03	0.00E+00	1.57E-08	0.00E+00	0.00E+00	6.61E-08	1.96E-09
200-EA-1	216-A-36A	3.09E-02	1.69E+02	0.00E+00	1.28E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-02	0.00E+00	0.00E+00	4.42E+01	9.60E-01	5.04E+02	0.00E+00	3.52E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E+02	2.71E+01
200-EA-1	216-A-36B	4.78E+00	2.61E+04	0.00E+00	1.98E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E+00	0.00E+00	0.00E+00	6.83E+03	1.48E+02	7.78E+04	0.00E+00	5.44E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E+04	1.04E+01
200-EA-1	216-A-37-1	4.76E+00	8.87E+01	0.00E+00	3.38E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03	0.00E+00	2.01E-01	0.00E+00	0.00E+00	5.73E-01	0.00E+00	7.76E+02	3.07E+01	2.21E+01	0.00E+00	0.00E+00	0.00E+00	4.25E+02	1.01E+02	5.18E+00	4.43E+01	5.72E+00	3.02E+01	0.00E+00	0.00E+00	0.00E+00	1.44E-02
200-EA-1	216-A-37-2	1.82E+01	3.53E+02	0.00E+00	4.58E+00	0.00E+00	0.00E+00	0.00E+00	3.95E-03	0.00E+00	1.90E-01	0.00E+00	0.00E+00	6.89E-01	0.00E+00	2.93E+03	1.90E+02	1.59E+02	0.00E+00	5.19E+03	0.00E+00	8.29E+02	1.97E+02	1.66E+01	8.38E+01	0.00E+00	2.21E+01	0.00E+00	0.00E+00	0.00E+00	4.74E+00
WMA-A-AX	216-A-39	8.16E-07	1.85E-01	0.00E+00	7.17E-04	2.90E-03	0.00E+00	0.00E+00	2.22E-06	0.00E+00	1.02E-03	7.33E-04	5.48E-07	0.00E+00	0.00E+00	1.03E-03	1.54E-03	5.09E-02	1.94E-01	1.54E-03	0.00E+00	8.15E-02	2.03E-03	0.00E+00	6.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03	1.22E-04
200-EA-1	216-A-4	1.45E-01	1.12E+02	0.00E+00	6.15E+00	6.15E-01	0.00E+00	0.00E+00	3.56E-03	0.00E+00	0.00E+00	2.77E-01	3.65E-02	8.70E-03	0.00E+00	1.91E+01	1.18E+04	1.47E+04	1.41E+00	1.55E+00	2.57E+02	7.84E+00	0.00E+00	2.39E+01	3.50E+00	0.00E+00	4.83E-03	0.00E+00	0.00E+00	4.83E-03	3.05E+02
200-EA-1	216-A-40	5.57E-02	2.28E-01	8.54E-06	3.88E-03	1.35E-06	8.72E-10	0.00E+00	2.69E-10	1.15E-10	6.09E-04	9.08E-08	0.00E+00	5.54E-04	0.00E+00	2.08E+00	8.21E-02	5.54E-02	3.28E-05	8.31E+00	5.11E-07	1.14E+00	2.73E-01	1.46E-02	9.70E-02	0.00E+00	1.61E-12	0.00E+00	0.00E+00	3.46E-07	2.14E-08
200-EA-1	216-A-41	7.72E-04	8.32E-03	2.35E-07	9.20E-04	2.83E-05	0.00E+00	0.00E+00	5.43E-12	8.88E-11	2.84E-09	2.37E-05	1.28E-12	4.13E-10	0.00E+00	2.17E-02	4.01E-01	6.26E-01	5.50E-07	2.39E-07	1.55E-01	7.53E-02	5.76E-09	6.09E-04	8.21E-02	0.00E+00	1.19E-08	0.00E+00	0.00E+00	5.01E-08	8.04E-05
200-EA-1	216-A-45	1.95E+00	2.91E+02	2.31E-05	1.25E+01	1.30E+00	2.36E-09	0.00E+00	7.69E-02	3.12E-10	1.65E-03	6.60E-01	0.00E+00	1.08E-01	0.00E+00	2.37E+02	1.46E+05	1.82E+05	8.87E-05	2.25E+01	3.19E+03	6.21E+01	7.37E-01	2.95E+02	1.11E+03	0.00E+00	6.00E-02	0.00E+00	0.00E+00	6.00E-02	8.70E-01
200-EA-1	216-A-5	3.82E+01	1.94E+03	0.00E+00	2.15E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+05	0.00E+00	0.00E+00	0.00E+00	1.07E+03	0.00E+00	0.00E+00	1.92E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.90E+00
200-EA-1	216-A-6	5.06E+01	5.81E+03	6.55E-01	1.35E+02	5.31E+02	0.00E+00	0.00E+00	3.18E-04	2.91E-07	1.59E-02	1.36E+02	3.61E-09	2.13E+00	0.00E+00	8.14E+03	1.42E+03	1.54E+04	1.41E+03	2.58E+04	5.08E+02	3.66E+03	8.58E+02	4.56E+01	1.46E+03	0.00E+00	3.91E-05	0.00E+00	0.00E+00	1.64E-04	6.80E+00
200-PW-3	216-A-7	1.04E-02	3.48E+00	0.00E+00	2.17E-02	1.65E-03	0.00E+00	0.00E+00	2.02E-06	0.00E+00	9.69E-05	2.51E-04	0.00E+00	2.76E-04	0.00E+00	3.77E-01	1.48E-02	5.10E+02	0.00E+00	7.29E-02	0.00E+00	2.47E+00	6.16E-02	2.49E-03	1.22E-01	0.00E+00	2.42E-02	5.45E+04	2.34E+04	6.73E-02	9.40E+01
200-PW-3	216-A-8	5.05E+01	3.66E+02	1.77E+01	3.00E+01	6.38E-04	0.00E+00	0.00E+00	7.40E-01	0.00E+00	1.85E+01	9.68E-05	0.00E+00	3.04E+00	0.00E+00	3.20E+03	1.43E+02	2.18E+02	0.00E+00	1.18E+03	0.00E+00	1.75E+03	4.14E+02	2.14E+01	1.80E+02	0.00E+00	2.06E+02	2.11E+04	9.03E+03	2.60E-02	5.28E+01
200-EA-1	216-A-9	5.96E+01	4.41E+02	1.18E+00	9.91E+00	2.71E+00	0.00E+00	0.00E+00	8.65E-03	0.00E+00	4.18E-01	1.75E+02	0.00E+00	1.47E+00	0.00E+00	3.54E+03	2.20E+02	1.93E+02	4.20E+00	1.05E+04	5.19E+01	1.71E+03	4.05E+02	2.16E+01	1.73E+02	0.00E+00	1.04E+02	0.00E+00	0.00E+00	5.50E+00	3.17E+03
200-EA-1	216-B-10A	6.60E-01	8.38E+01	0.00E+00	1.92E+00	7.64E+00	2.96E-02	1.21E-05	3.16E-05	1.95E-03	0.00E+00	1.96E+00	5.35E-06	2.67E-03	0.00E+00	6.62E+00	1.48E+01	1.81E+02	2.03E+01	4.20E+00	1.98E+00	7.36E+00	5.79E-02	1.09E+00	2.09E+00	0.00E+00	6.06E-06	0.00E+00	0.00E+00	1.21E-01	6.94E-01
200-EA-1	216-B-10B	5.48E-04	2.06E+01	0.00E+00	4.81E-01	1.91E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.91E-01	0.00E+00	0.00E+00	0.00E+00	1.65E+00	1.24E-01	4.47E+01	5.07E+00	5.43E-01	0.00E+00	1.77E+00	0.00E+00	0.00E+00	5.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-09
200-DV-1	216-B-11A&B	7.33E-01	4.83E+01	2.41E-01	2.67E-01	2.00E-01	4.09E-02	0.00E+00	3.13E-02	1.06E-02	5.40E-02	4.56E-02	0.00E+00	3.67E-02	0.00E+00	8.15E+01	1.21E+00	9.27E+01	3.62E+00	3.89E+00	2.86E+00	1.22E+01	1.26E-01	1.53E+00	1.84E+00	0.00E+00	2.58E-04	0.00E+00	4.35E-01	6.73E-01	1.54E-02
200-EA-1	216-B-12	1.27E+01	2.05E+03	6.23E+00	3.50E+01	1.38E+02	1.06E+00	0.00E+00	2.49E-01	2.73E-01	3.19E-01	3.64E+01	0.00E+00	3.42E-01	0.00E+00	8.16E+02	3.55E+05	4.40E+05	3.79E+02	1.57E+03	7.73E+03	2.88E+02	5.15E+01	7.14E+02	6.32E+01	0.00E+00	1.45E-01	0.00E+00	2.31E+00	1.74E+01	1.13E+03
200-CB-1	216-B-13	7.58E-04	5.26E-03	0.00E+00	5.84E-05	3.53E-05	1.01E-05	4.13E-09	8.28E-06	6.63E-07	1.83E-05	1.14E-05	1.59E-09	8.14E-06	0.00E+00	1.53E-02	3.62E-04	7.98E-03	9.50E-05	1.22E-03	6.63E-04	2.20E-03	1.97E-05	3.69E-04	1.07E-04	0.00E+00	0.00E+00	0.00E+00	1.83E-04	4.13E-05	2.90E-05
200-BC-1	216-B-14	6.53E-01	3.06E+05	0.00E+00	2.81E+02	4.65E+02	1.35E+02	0.00E+00	1.24E+00	0.00E+00	0.00E+00	4.08E+02	1.47E+00	0.00E+00	0.00E+00	5.73E+02	2.55E+03	2.26E+05	2.08E+02	8.58E+02	1.93E+04	4.37E+04	1.13E+03	1.57E+04	1.06E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03	7.03E+01
200-BC-1	216-B-15	5.27E-01	2.35E+05	0.00E+00	2.26E+02	3.74E+02	1.09E+02	0.00E+00	9.96E-01	0.00E+00	0.00E+00	3.28E+02	1.35E+00	0.00E+00	0.00E+00	4.61E+02	2.05E+03	1.82E+05	1.00E+02	6.91E+02	1.56E+04	3.52E+04	9.08E+02	1.27E+04	8.56E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.05E-04	6.36E+01
200-BC-1	216-B-16	4.50E-01	2.03E+05	2.84E+02	2.01E+02	3.71E+02	9.96E+01	0.00E+00	8.36E-01	6.06E+00	1.21E+00	2.81E+02	1.09E+00	0.00E+00	0.00E+00	3.95E+02	1.74E+03	2.09E+05	4.93E+03	5.21E+03	1.36E+04	3.00E+04	7.44E+02	1.03E+04	7.39E+03	0.00E+00	1.01E+00	0.00E+00	0.00E+00	3.92E+02	5.44E+01
200-BC-1	216-B-17	3.09E-01	1.49E+05	5.72E+02	1.68E+02	4.36E+02	9.53E+01	0.00E+00	4.64E-01	1.22E+01	2.45E+00	1.91E+02	9.68E-04	0.00E+00	0.00E+00	2.68E+02	1.06E+03	2.99E+05	9.96E+03	1.05E+04	1.07E+04	1.99E+04	2.55E+02	3.25E+03	5.29E+03	0.00E+00	2.03E+00	0.00E+00	0.00E+00	7.91E+02	3.62E+01
200-BC-1	216-B-18	9.25E-01	4.13E+05	0.00E+00	3.98E+02	6.57E+02	1.91E+02	0.00E+00	1.75E+00	0.00E+00	0.00E+00	5.78E+02	2.37E+00	0.00E+00	0.00E+00	8.11E+02	3.61E+03	3.21E+05	1.76E+02	1.21E+03	2.74E+04	6.19E+04	1.60E+03	2.23E+04	1.51E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.12E-04	1.12E+02
200-BC-1	216-B-19	4.49E-01	2.14E+05	7.40E+02	2.36E+02	5.83E+02	1.31E+02	0.00E+00	7.21E-01	1.58E+01	3.16E+00	2.79E+02	5.40E-01	0.00E+00	0.00E+00	3.92E+02	1.59E+03	3.93E+05	1.29E+04	1.35E+04	1.51E+04	2.93E+04	4.91E+02	6.58E+03	7.65E+03	0.00E+00	2.63E+00	0.00E+00	0.00E+00	1.02E+03	5.33E+01
200-BC-1	216-B-20	3.24E-01	1.53E+05	4.78E+02	1.67E+02	3.90E+02	8.96E+01	0.00E+00	5.43E-01	1.02E+01	2.04E+00	2.03E+02	5.40E+00	0.00E+00	3.92E+01	2.85E+02	1.17E+03	2.59E+05	8.32E+03	8.74E+03	1.07E+04	2.13E+04	4.04E+02	5.50E+03	5.48E+03	0.00E+00	1.70E+00	0.00E+00	0.00E+00	6.61E+02	3.90E+01
200-BC-1	216-B-21	4.38E-01	1.96E+05	1.12E+02	1.90E+02	3.20E+02	9.16E+01	0.00E+00	8.27E-01	2.40E+00	4.80E-01	2.74E+02	1.11E+00	0.00E+00	0.00E+00	3.85E+02	1.71E+03	1.62E+05	1.96E+03	2.13E+03	1.30E+04	2.93E+04	7.52E+02	1.05E+04	7.14E+03	0.00E+00	3.99E-01	0.00E+00	0.00E+00	1.55E+02	5.30E+01
200-BC-1	216-B-22	3.55E-01	1.62E+05	3.09E+02	1.63E+02	3.25E+02	8.29E+01	0.00E+00	6.47E-01	6.60E+00	1.32E+00	2.22E+02	8.07E-01	0.00E+00	0.00E+00	3.12E+02	1.35E+03	1.95E+05	5.37E+03	5.66E+03	1.10E+04	2.36E+04	5.61E+02	7.78E+03	5.87E+03	0.00E+00	1.10E+00	0.00E+00	0.00E+00	4.27E+02	4.28E+01
200-BC-1	216-B-23	3.36E-01	1.53E+05	3.02E+02	1.55E+02	3.11E+02	7.90E+01	0.00E+00	6.10E-01	6.46E+00	1.29E+00	2.10E+02	7.57E-01	0.00E+00	0.00E+00	2.95E+02	1.28E+03	1.88E+05	5.26E+03	5.53E+03	1.04E+04	2.24E+04	5.28E+02	7.31E+03	5.56E+03	0.00E+00	1.07E+00	0.00E+00	0.00E+00	4.17E+02	4.05E+01
200-BC-1	216-B-24	5.29E-01	2.36E+05	0.00E+00	2.27E+02	3.76E+02	1.09E+02	0.00E+00	1.00E+00	0.00E+00	0.00E+00	3.30E+02	1.35E+00	0.00E+00	0.00E+00	4.64E+02	2.06E+03	1.83E+05	1.01E+02	6.94E+02	1.57E+04	3.54E+04	9.13E+02	1.27E+04	8.60E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.07E-04	6.39E+01
200-BC-1	216-B-25	5.33E-01	2.38E+05	0.00E+00	2.29E+02	3.79E+02	1.10E+02	0.00E+00	1.01E+00	0.00E+00	0.00E+00	3.33E+02	1.37E+00	0.00E+00	0.00E+00	4.68E+02	2.08E+03	1.85E+05	1.01E+02	7.00E+02	1.58E+04	3.56E+04	9.21E+02	1.28E+04	8.68E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-04	6.45E+01
200-BC-1	216-B-26	3.69E-01	1.64E+05	0.00E+00	1.66E+02	2.62E+02	7.60E+01	0.00E+00	7.03E-01	0.00E+00	0.00E+00	2.30E+02	9.99E+00	0.00E+00	1.93E+01	3.23E+02	1.44E+03	1.28E+05	7.78E+01	4.84E+02	1.09E+04	2.46E+04	6.36E+02	8.86E+03	5.99E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-01	4.57E+01
200-BC-1	216-B-27	4.80E-01	2.14E+05	0.00E+00	2.06E+02	3.41E+02	9.91E+01	0.00E+00	9.09E-01	0.00E+00	0.00E+00	3.00E+02	1.23E+00	0.00E+00	0.00E+00	4.21E+02	1.87E+03	1.66E+05	9.13E+01	6.30E+02	1.42E+04	3.21E+04	8.29E+02	1.15E+04	7.81E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-04	5.80E+01
200-BC-1	216-B-28	3.92E-01	1.78E+05	2.90E+02	1.77E+02	3.38E+02	8.87E+01	0.00E+00	7.22E-01	6.21E+00	1.24E+00	2.45E+02	9.24E-01	0.00E+00	0.00E+00	3.44E+02	1.51E+03	1.96E+05	5.05E+03	5.33E+03	1.20E+04	2.61E+04	6.36E+02	8.83E+03	6.45E+03	0.00E+00	1.03E+00	0.00E+00	0.00E+00	4.01E+02	4.73E+01
200-BC-1	216-B-29	4.16E-01	1.88E+05	0.00E+00	1.79E+02	2.96E+02	8.59E+01	0.00E+00	7.88E-01	0.00E+00	0.00E+00	2.60E+02	1.03E+00	0.00E+00	0.00E+00	3.65E+02	1.62E+03	1.44E+05	9.64E+01	5.46E+02	1.23E+04	2.78E+04	7.18E+02	1.00E+04	6.77E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.66E-04	4.89E+01
200-CW-1	216-B-3	1.65E+03	2.28E+04	6.62E+02	1.01E+03	1.65E+02	1.54E+00	6.32E-04	2.52E+01	1.02E-01	5.85E+02	1.58E+01	3.17E+01	9.36E+01	0.00E+00	1.98E+05	3.07E+04	2.51E+04	1.47E+01	5.83E+05	1.19E+04	1.28E+05	2.16E+04	2.02E+03	1.26E+04	5.09E+02	2.45E+03	0.00E+00	4.66E+03	6.32E+00	2.08E+02
200-BC-1	216-B-30	3.44E-01	1.64E+05	5.86E+02	1.82E+02	4.57E+02	1.02E+02	0.00E+00	5.44E-01	1.25E+01	2.50E+00	2.14E+02	3.59E-01	0.00E+00	0.00E+00	3.00E+02	1.21E+03	3.09E+05	1.02E+04	1.07E+04	1.17E+04	2.24E+04	3.56E+02	4.73E+03	5.87E+03	0.00E+00	2.08E+00	0.00E+00	0.00E+00	8.09E+02	4.07E+01
200-BC-1	216-B-31	3.47E-01	1.66E+05	5.86E+02	1.83E+02	4.58E+02	1.02E+02	0.00E+00	5.51E-01	1.25E+01	2.50E+00	2.16E+02	3.78E-01	0.00E+00	0.00E+00	3.03E+02	1.22E+03	3.10E+05	1.02E+04	1.07E+04	1.18E+04	2.26E+04	3.65E+02	4.87E+03	5.92E+03	0.00E+00	2.08E+00	0.00E+00	0.00E+00	8.09E+02	4.11E+01
200-BC-1	216-B-32	3.40E-01	1.64E+05	6.09E+02	1.83E+02	4.68E+02	1.03E+02	0.00E+00	5.25E-01	1.30E+01	2.60E+00	2.11E+02	2.28E-01	0.00E+00	0.00E+00	2.96E+02	1.18E+03	3.20E+05	1.06E+04	1.11E+04	1.17E+04	2.21E+04	3.16E+02	4.12E+03	5.83E+03	0.00E+00	2.16E+00	0.00E+00	0.00E+00	8.42E+02	4.00E+01
200-BC-1	216-B-33	3.87E-01	1.87E+05	7.13E+02	2.10E+02	5.44E+02	1.19E+02	0.00E+00	5.85E-01	1.53E+01	3.05E+00	2.39E+02	1.26E-03	0.00E+00	0.00E+00	3.36E+02	1.33E+03	3.73E+05	1.24E+04	1.30E+04	1.34E+04	2.50E+04	3.28E+02	4.20E+03	6.63E+03	0.00E+00	2.53E+00	0.00E+00	0.00E+00	9.86E+02	4.51E+01
200-BC-1	216-B-34	4.04E-01	1.95E+05	7.47E+02	2.20E+02	5.69E+02	1.25E+02	0.00E+00	6.10E-01	1.60E+01	3.19E+00	2.50E+02	1.30E-03	0.00E+00	0.00E+00	3.51E+02	1.39E+03	3.90E+05	1.30E+04	1.36E+04	1.40E+04	2.61E+04	3.40E+02	4.35E+03	6.93E+03	0.00E+00	2.65E+00	0.00E+00	0.00E+00	1.03E+03	4.72E+01
200-DV-1	216-B-35	4.33E-02	1.58E+04	2.26E+01	5.79E+01	1.55E+02	6.31E+01	0.00E+00	9.54E-02	7.55E+00	0.00E+00	2.80E+01	7.33E-02	0.00E+00	0.00E+00	4.31E+01	1.11E+02	3.01E+04	6.52E+02	6.45E+01	1.91E+03	1.99E+03	8.49E+01	1.05E+03	4.62E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.06E+02	1.32E+01
200-DV-1	216-B-36	7.92E-02	2.90E+04	4.13E+01	1.06E+02	2.84E+02	1.16E+02	0.00E+00	1.75E-01	1.38E+01	0.00E+00	5.13E+01	1.34E-01	0.00E+00	0.00E+00	7.88E+01	2.03E+02	5.52E+04	1.19E+03	1.18E+02	3.49E+03	3.65E+03	1.55E+02	1.93E+03	8.45E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.42E+02	2.42E+01
200-DV-1	216-B-37	1.76E-01	6.46E+04	9.20E+01	2.36E+02	6.31E+02	2.57E+02	0.00E+00	3.89E-01	3.08E+01	0.00E+00	1.14E+02	2.99E-01	0.00E+00	0.00E+00	1.75E+02	4.51E+02	1.23E+05	2.66E+03	2.63E+02	7.78E+03	8.13E+03	3.46E+02	4.30E+03	1.88E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E+03	5.39E+01
200-DV-1	216-B-38	5.84E-02	2.14E+04	3.04E+01	7.81E+01	2.09E+02	8.52E+01	0.00E+00	1.29E-01	1.02E+01	0.00E+00	3.78E+01	9.88E-02	0.00E+00	0.00E+00	5.81E+01	1.49E+02	4.07E+04	8.79E+02	8.70E+01	2.57E+03	2.69E+03	1.14E+02	1.42E+03	6.23E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.47E+02	1.78E+01
200-DV-1	216-B-39	4.45E-02	1.63E+04	2.32E+01	5.95E+01	1.59E+02	6.49E+01	0.00E+00	9.80E-02	7.76E+00	0.00E+00	2.88E+01	7.53E-02	0.00E+00	0.00E+00	4.42E+01	1.14E+02	3.10E+04	6.70E+02	6.62E+01	1.96E+03	2.05E+03	8.72E+01	1.08E+03	4.74E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E+02	1.36E+01
200-CB-1	216-B-4	4.56E-04	1.05E-02	0.00E+00	2.44E-05	7.17E-05	2.05E-05	8.39E-09	2.16E-08	1.35E-06	0.00E+00	2.31E-05	2.47E-09	1.84E-06	0.00E+00	3.51E-05	5.87E-04	1.59E-02	1.93E-04	2.48E-03	1.35E-03	1.43E-03	4.00E-05	7.50E-04	2.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.39E-05	2.49E-05
200-DV-1	216-B-40	6.70E-02	2.45E+04	3.49E+01	8.96E+01	2.40E+02	9.77E+01	0.00E+00	1.48E-01	1.17E+01	0.00E+00	4.33E+01	1.13E-01	0.00E+00	0.00E+00	6.66E+01	1.71E+02	4.66E+04	1.01E+03	9.97E+01	2.95E+03	3.08E+03	1.31E+02	1.63E+03	7.14E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E+02	2.05E+01
200-DV-1	216-B-41	5.88E-02	2.15E+04	3.07E+01	7.87E+01	2.10E+02	8.58E+01	0.00E+00	1.30E-01	1.03E+01	0.00E+00	3.81E+01	9.95E-02	0.00E+00	0.00E+00	5.85E+01	1.50E+02	4.10E+04	8.85E+02	8.76E+01	2.59E+03	2.71E+03	1.15E+02	1.43E+03	6.27E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.51E+02	1.80E+01
200-DV-1	216-B-42	1.40E-01	7.37E+04	0.00E+00	5.98E+01	9.88E+01	2.87E+01	0.00E+00	2.63E-01	0.00E+00	0.00E+00	8.68E+01	1.11E-03	0.00E+00	0.00E+00	1.22E+02	5.43E+02	4.80E+04	7.83E+01	1.83E+02	4.11E+03	9.30E+03	2.40E+02	3.35E+03	2.26E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.39E-04	5.16E+00
200-DV-1	216-B-43	1.97E-01	1.04E+05	0.00E+00	8.45E+01	1.40E+02	4.06E+01	0.00E+00	3.72E-01	0.00E+00	0.00E+00	1.23E+02	1.58E-03	0.00E+00	0.00E+00	1.72E+02	7.67E+02	6.79E+04	1.11E+02	2.58E+02	5.82E+03	1.31E+04	3.39E+02	4.73E+03	3.20E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03	7.29E+00
200-DV-1	216-B-44	3.72E-01	1.96E+05	0.00E+00	1.59E+02	2.62E+02	7.61E+01	0.00E+00	6.98E-01	0.00E+00	0.00E+00	2.30E+02	2.96E-03	0.00E+00	0.00E+00	3.23E+02	1.44E+03	1.27E+05	2.08E+02	4.84E+02	1.09E+04	2.47E+04	6.37E+02	8.88E+03	6.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.49E-03	1.37E+01
200-DV-1	216-B-45	4.58E-01	2.42E+05	0.00E+00	2.07E+02	3.24E+02	9.41E+01	0.00E+00	8.71E-01	0.00E+00	0.00E+00	2.85E+02	8.41E-03	0.00E+00	4.77E+01	4.00E+02	1.78E+03	1.58E+05	2.60E+02	6.00E+02	1.35E+04	3.05E+04	7.88E+02	1.10E+04	7.42E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-01	1.94E+01
200-DV-1	216-B-46	6.23E-01	3.29E+05	0.00E+00	2.67E+02	4.41E+02	1.28E+02	0.00E+00	1.18E+00	0.00E+00	0.00E+00	3.88E+02	4.98E-03	0.00E+00	0.00E+00	5.45E+02	2.42E+03	2.15E+05	3.50E+02	8.15E+02	1.84E+04	4.15E+04	1.07E+03	1.49E+04	1.01E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03	2.30E+01
200-DV-1	216-B-47	2.59E-01	1.29E+05	0.00E+00	1.12E+02	1.84E+02	5.36E+01	0.00E+00	4.91E-01	0.00E+00	0.00E+00	1.62E+02	4.26E-01	0.00E+00	0.00E+00	2.28E+02	1.01E+03	8.97E+04	1.17E+02	3.41E+02	7.68E+03	1.73E+04	4.48E+02	6.24E+03	4.22E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-03	2.14E+01
200-DV-1	216-B-48	3.81E-01	2.01E+05	0.00E+00	1.63E+02	2.69E+02	7.83E+01	0.00E+00	7.18E-01	0.00E+00	0.00E+00	2.37E+02	3.04E-03	0.00E+00	0.00E+00	3.32E+02	1.48E+03	1.31E+05	2.13E+02	4.98E+02	1.12E+04	2.54E+04	6.55E+02	9.12E+03	6.17E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03	1.41E+01
200-DV-1	216-B-49	6.23E-01	3.29E+05	0.00E+00	2.67E+02	4.41E+02	1.28E+02	0.00E+00	1.18E+00	0.00E+00	0.00E+00	3.88E+02	4.98E-03	0.00E+00	0.00E+00	5.45E+02	2.42E+03	2.15E+05	3.50E+02	8.15E+02	1.84E+04	4.15E+04	1.07E+03	1.49E+04	1.01E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03	2.30E+01
200-DV-1	216-B-5	1.53E+00	5.04E+04	0.00E+00	1.54E+03	1.06E+03	2.32E+03	9.41E+02	0.00E+00	0.00E+00	0.00E+00	4.04E+02	5.11E-01	4.63E+02	0.00E+00	1.21E+03	2.02E+04	1.17E+05	5.51E-01	1.58E+03	1.28E+04	1.48E+03	4.26E+01	8.45E+03	1.81E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-07	6.93E-01
200-DV-1	216-B-50	8.08E-01	2.71E+01	4.73E+00	3.06E-01	1.71E+00	3.41E-03	2.46E-08	9.55E-02	3.49E-04	6.80E-02	1.07E-02	3.23E-01	2.37E-02	0.00E+00	8.78E+01	2.83E+00	2.22E+01	1.18E+01	3.18E+00	5.96E-01	5.06E+01	7.26E+00	8.65E-01	1.26E+01	0.00E+00	1.70E-01	0.00E+00	4.74E+01	9.15E-02	3.76E-03
200-EA-1	216-B-51	7.38E-05	3.30E+01	0.00E+00	3.18E-02	5.25E-02	1.52E-02	0.00E+00	1.40E-04	0.00E+00	0.00E+00	4.61E-02	1.89E-04	0.00E+00	0.00E+00	6.48E-02	2.88E-01	2.56E+01	1.40E-02	9.70E-02	2.19E+00	4.94E+00	1.28E-01	1.78E+00	1.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-08	8.93E-03
200-BC-1	216-B-52	6.43E-01	3.11E+05	1.16E+03	3.46E+02	8.87E+02	1.95E+02	0.00E+00	9.81E-01	2.47E+01	4.94E+00	3.97E+02	2.30E-03	0.00E+00	0.00E+00	5.57E+02	2.21E+03	6.06E+05	2.01E+04	2.11E+04	2.20E+04	4.14E+04	5.79E+02	7.51E+03	1.10E+04	0.00E+00	4.10E+00	0.00E+00	0.00E+00	1.60E+03	7.33E+01
200-BC-1	216-B-53A	2.21E-02	8.23E+01	0.00E+00	1.21E+01	4.60E-01	0.00E+00	0.00E+00	1.31E-03	0.00E+00	3.12E-02	4.54E-01	1.22E-01	5.56E-04	0.00E+00	2.93E+00	6.31E-01	1.93E+02	1.05E+00	2.98E+00	1.12E+01	5.98E+00	2.60E-01	1.47E-02	2.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-05	2.78E+01
200-BC-1	216-B-53B	4.81E-04	4.76E+01	0.00E+00	3.51E+00	2.63E-01	0.00E+00	0.00E+00	7.09E-05	0.00E+00	1.69E-03	1.44E-01	3.50E-02	1.88E-05	0.00E+00	5.88E-01	3.63E-01	1.12E+02	6.13E-01	8.75E-01	4.88E+00	3.40E+00	8.09E-03	4.59E-04	1.51E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-05	8.08E+00
200-BC-1	216-B-54	2.35E-02	4.76E+01	0.00E+00	3.51E+00	2.78E-01	0.00E+00	0.00E+00	1.40E-03	0.00E+00	3.33E-02	1.44E-01	3.98E-02	5.93E-04	0.00E+00	2.37E+00	3.75E-01	1.12E+02	6.13E-01	8.75E-01	4.88E+00	3.65E+00	2.77E-01	1.57E-02	1.52E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-05	8.10E+00
200-EA-1	216-B-55	1.31E+01	2.28E+02	8.54E-03	3.88E+00	1.35E-03	8.72E-07	0.00E+00	2.69E-07	1.15E-07	6.09E-01	9.08E-05	0.00E+00	5.54E-01	0.00E+00	2.08E+03	8.21E+01	5.54E+01	3.28E-02	8.31E+03	5.11E-04	1.14E+03	2.73E+02	1.46E+01	9.69E+01	0.00E+00	1.61E-09	0.00E+00	0.00E+00	3.46E-04	1.98E-05
200-DV-1	216-B-57	1.49E+00	1.01E+02	1.83E+01	5.65E-01	3.30E+00	1.32E-02	9.52E-08	1.76E-01	1.35E-03	1.35E-01	4.16E-02	5.95E-01	4.43E-02	0.00E+00	1.62E+02	5.26E+00	8.45E+01	4.56E+01	1.23E+01	2.31E+00	9.34E+01	1.34E+01	1.74E+00	2.34E+01	0.00E+00	6.60E-01	0.00E+00	8.73E+01	3.54E-01	1.17E-02
200-BC-1	216-B-58	1.41E-02	3.81E+01	0.00E+00	2.81E+00	2.17E-01	0.00E+00	0.00E+00	8.38E-04	0.00E+00	2.00E-02	1.15E-01	3.02E-02	3.56E-04	0.00E+00	1.46E+00	2.96E-01	8.96E+01	4.90E-01	7.00E-01	3.91E+00	2.84E+00	1.66E-01	9.44E-03	1.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-05	6.48E+00
200-EA-1	216-B-59	1.95E-02	3.39E-01	1.27E-05	5.76E-03	2.01E-06	1.30E-09	0.00E+00	4.00E-10	1.71E-10	9.06E-04	1.35E-07	0.00E+00	8.23E-04	0.00E+00	3.10E+00	1.22E-01	8.23E-02	4.87E-05	1.23E+01	7.59E-07	1.70E+00	4.05E-01	2.17E-02	1.44E-01	0.00E+00	2.39E-12	0.00E+00	0.00E+00	5.14E-07	2.95E-08
200-EA-1	216-B-6	2.77E-01	2.28E+03	0.00E+00	5.32E+01	2.12E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E+01	0.00E+00	0.00E+00	0.00E+00	1.83E+02	1.37E+01	4.94E+03	5.61E+02	6.00E+01	0.00E+00	1.95E+02	0.00E+00	0.00E+00	5.72E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-02
200-CB-1	216-B-60	7.72E-04	2.90E+01	0.00E+00	6.77E-01	2.69E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.02E-01	0.00E+00	0.00E+00	0.00E+00	2.34E+00	1.74E-01	6.28E+01	7.14E+00	8.14E-01	0.00E+00	2.49E+00	0.00E+00	0.00E+00	7.27E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E+00
200-EA-1	216-B-62	3.42E+00	9.18E+02	1.74E+01	3.25E+00	2.63E+01	1.26E-02	0.00E+00	9.57E-03	1.10E-04	1.39E+00	3.16E+00	0.00E+00	3.23E-01	0.00E+00	5.43E+02	2.32E+01	5.50E+02	6.49E+02	2.18E+03	6.28E+01	3.65E+02	7.16E+01	3.83E+00	3.22E+01	0.00E+00	4.19E-10	0.00E+00	0.00E+00	8.88E+00	7.99E-01
200-EA-1	216-B-63	7.04E+01	9.72E+02	2.46E-03	2.44E+01	4.62E+00	2.51E-07	0.00E+00	2.63E-01	3.32E-08	2.53E-01	5.23E-03	8.87E-01	2.64E+00	0.00E+00	8.44E+03	1.22E+03	1.44E+03	9.44E-03	3.28E+04	2.53E+01	5.09E+03	1.06E+03	6.38E+01	6.88E+02	0.00E+00	4.75E-04	0.00E+00	1.30E+02	4.85E-04	7.40E+01
200-DV-1	216-B-7A&B	1.57E+00	8.89E+04	0.00E+00	5.54E+02	1.89E+03	6.96E+02	1.04E+00	3.88E-03	0.00E+00	5.44E+00	7.18E+02	9.05E-01	2.14E+02	0.00E+00	1.14E+03	3.59E+04	2.06E+05	3.94E+02	5.03E+02	2.27E+04	2.34E+03	1.80E+01	1.50E+04	3.21E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-01	8.35E-01
200-DV-1	216-B-8	1.41E+00	1.05E+05	0.00E+00	5.15E+02	1.17E+03	2.31E+02	5.40E-03	0.00E+00	0.00E+00	0.00E+00	2.34E+02	8.74E-01	1.19E+00	0.00E+00	3.61E+02	7.37E+02	1.92E+05	9.40E+00	5.41E+02	1.61E+04	1.19E+04	7.11E+02	1.04E+04	2.67E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-05	1.33E+01

OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-DV-1	216-B-9	3.88E+00	1.14E+04	0.00E+00	3.01E+01	9.07E+01	2.76E+01	1.46E-02	0.00E+00	0.00E+00	0.00E+00	2.77E+01	7.65E-02	3.21E+00	0.00E+00	4.32E+01	9.87E+02	2.34E+04	8.82E-01	6.47E+01	1.67E+03	1.11E+03	6.58E+01	1.31E+03	3.14E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.90E+00
200-EA-1	216-BY-201	3.37E-03	1.78E+03	0.00E+00	1.44E+00	2.38E+00	6.92E-01	0.00E+00	6.35E-03	0.00E+00	0.00E+00	2.09E+00	2.69E-05	0.00E+00	0.00E+00	2.94E+00	1.31E+01	1.16E+03	1.89E+00	4.40E+00	9.92E+01	2.24E+02	5.79E+00	8.07E+01	5.46E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-05	1.24E-01
200-EA-1	216-C-1	2.45E+00	3.65E+05	6.50E+04	3.43E+02	8.21E+03	0.00E+00	0.00E+00	1.09E+00	0.00E+00	3.12E+01	3.48E+02	1.55E-01	9.35E+01	0.00E+00	4.88E+02	2.98E+03	3.97E+05	1.02E+05	7.31E+02	0.00E+00	8.49E+03	9.62E+02	0.00E+00	9.66E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.34E+02	2.05E+02
200-EA-1	216-C-10	2.37E-02	1.42E+00	0.00E+00	7.50E-02	1.10E-02	0.00E+00	0.00E+00	6.79E-04	0.00E+00	1.29E-02	6.50E-03	0.00E+00	1.19E-03	0.00E+00	2.64E+00	1.03E-01	1.39E+00	3.71E-01	8.14E-03	0.00E+00	4.02E-01	0.00E+00	0.00E+00	4.82E-02	0.00E+00	0.00E+00	0.00E+00	3.09E-02	1.70E-03	8.42E-04
200-EA-1	216-C-2	1.07E-01	1.47E-01	0.00E+00	9.48E-03	0.00E+00	0.00E+00	0.00E+00	1.40E-03	0.00E+00	3.03E-03	0.00E+00	0.00E+00	1.35E-03	0.00E+00	2.50E+00	3.56E-02	2.36E-01	0.00E+00	0.00E+00	0.00E+00	3.41E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-02	0.00E+00	5.77E-05
200-EA-1	216-C-3	8.41E-01	3.70E+01	0.00E+00	1.95E-01	1.78E-01	0.00E+00	0.00E+00	9.31E-03	0.00E+00	7.36E-03	9.09E-02	0.00E+00	1.49E-02	0.00E+00	3.25E+01	2.01E+04	2.50E+04	2.17E-01	4.76E-03	4.39E+02	1.05E-01	0.00E+00	4.05E+01	2.82E-02	0.00E+00	8.25E-03	0.00E+00	0.00E+00	8.31E-03	7.68E-01
200-EA-1	216-C-4	1.55E-02	2.97E+00	2.48E-01	3.35E-02	3.67E-07	0.00E+00	0.00E+00	1.57E-04	0.00E+00	4.46E-04	2.07E-02	0.00E+00	1.91E-04	0.00E+00	3.61E-01	2.13E-02	1.68E+00	1.89E-01	5.71E-01	3.35E-02	1.57E-01	2.96E-03	0.00E+00	8.63E-02	0.00E+00	0.00E+00	0.00E+00	4.32E-03	3.91E-04	1.03E-03
200-EA-1	216-C-5	1.59E-03	2.20E+02	0.00E+00	3.62E+00	5.56E+00	0.00E+00	0.00E+00	5.51E-03	0.00E+00	2.45E-01	1.43E+00	0.00E+00	0.00E+00	0.00E+00	2.08E+00	1.64E+00	1.45E+02	1.69E+02	3.12E+00	0.00E+00	5.61E+01	4.08E+00	0.00E+00	6.84E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E+00	1.75E+01
200-EA-1	216-C-6	1.52E-02	1.03E+01	8.67E-01	1.17E-01	1.28E-06	0.00E+00	0.00E+00	3.97E-05	0.00E+00	0.00E+00	7.21E-02	0.00E+00	0.00E+00	0.00E+00	5.10E-02	7.22E-02	1.79E+01	6.58E-01	1.99E+00	1.17E-01	5.19E-01	1.03E-02	0.00E+00	3.01E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03	2.19E-01
200-EA-1	216-C-7	7.84E-04	1.09E-02	0.00E+00	5.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E-05	0.00E+00	0.00E+00	1.57E-04	0.00E+00	1.01E-01	3.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-04	5.42E-03	0.00E+00	0.00E+00	0.00E+00	6.65E-03	0.00E+00	1.91E-06
WMA-C	216-C-8	1.02E-03	1.49E-03	0.00E+00	8.89E-05	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	2.94E-05	0.00E+00	0.00E+00	1.26E-05	0.00E+00	2.38E-02	3.39E-04	2.24E-03	0.00E+00	0.00E+00	0.00E+00	3.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-04	0.00E+00	5.24E-07
200-SW-2	216-C-9	5.38E+01	2.20E+02	8.22E-03	3.75E+00	1.30E-03	8.39E-07	0.00E+00	4.02E-02	1.11E-07	5.92E-01	8.74E-05	0.00E+00	5.36E-01	0.00E+00	2.01E+03	7.92E+01	5.37E+01	3.16E-02	8.01E+03	4.92E-04	1.10E+03	2.63E+02	1.41E+01	9.37E+01	0.00E+00	1.55E-09	0.00E+00	8.75E-01	3.33E-04	2.19E-03
200-CW-3	216-N-1	7.02E+01	2.25E+02	0.00E+00	1.17E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.53E-01	0.00E+00	0.00E+00	3.25E+00	0.00E+00	2.09E+03	7.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E+01	1.12E+02	0.00E+00	0.00E+00	0.00E+00	1.38E+02	0.00E+00	6.86E-02
200-CW-3	216-N-2	2.97E-01	4.18E+00	0.00E+00	2.13E-01	5.76E-03	1.65E-03	6.75E-07	1.74E-06	1.08E-04	1.73E-02	1.86E-03	1.99E-07	5.89E-02	0.00E+00	3.78E+01	1.38E+00	1.28E+00	1.55E-02	2.00E-01	1.08E-01	1.15E-01	3.22E-03	2.53E-01	2.03E+00	0.00E+00	0.00E+00	0.00E+00	2.50E+00	6.74E-03	2.02E-03
200-CW-3	216-N-3	2.97E-01	2.65E+00	0.00E+00	1.31E-01	5.76E-03	1.65E-03	6.75E-07	1.74E-06	1.08E-04	1.06E-02	1.86E-03	2.98E-07	3.62E-02	0.00E+00	2.32E+01	8.44E-01	1.28E+00	1.55E-02	2.00E-01	1.08E-01	1.15E-01	3.22E-03	1.62E-01	1.25E+00	0.00E+00	0.00E+00	0.00E+00	1.53E+00	6.74E-03	7.26E-03
200-CW-3	216-N-4	7.02E+01	2.19E+02	0.00E+00	1.14E+01	2.28E-03	6.51E-04	2.67E-07	6.87E-07	4.29E-05	9.25E-01	7.35E-04	1.01E-07	3.16E+00	0.00E+00	2.02E+03	7.36E+01	5.07E-01	6.14E-03	7.90E-02	4.29E-02	4.56E-02	1.27E-03	1.32E+01	1.09E+02	0.00E+00	0.00E+00	0.00E+00	1.34E+02	2.67E-03	7.39E-02
200-CW-3	216-N-5	1.47E+00	4.14E+00	0.00E+00	2.09E-01	6.83E-03	1.95E-03	8.00E-07	2.06E-06	1.29E-04	1.70E-02	2.20E-03	3.55E-07	5.79E-02	0.00E+00	3.72E+01	1.35E+00	1.52E+00	1.84E-02	2.37E-01	1.28E-01	1.37E-01	3.81E-03	2.52E-01	2.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E+00	7.99E-03	8.06E-03
200-CW-3	216-N-6	7.02E+01	2.25E+02	0.00E+00	1.17E+01	2.28E-03	6.51E-04	2.67E-07	6.87E-07	4.29E-05	9.52E-01	7.35E-04	1.01E-07	3.25E+00	0.00E+00	2.08E+03	7.58E+01	5.07E-01	6.14E-03	7.90E-02	4.29E-02	4.56E-02	1.27E-03	1.35E+01	1.12E+02	0.00E+00	0.00E+00	0.00E+00	1.38E+02	2.67E-03	6.86E-02
200-CW-3	216-N-7	1.47E+00	4.11E+00	0.00E+00	2.09E-01	5.76E-03	1.65E-03	6.75E-07	1.74E-06	1.08E-04	1.70E-02	1.86E-03	2.98E-07	5.79E-02	0.00E+00	3.72E+01	1.35E+00	1.28E+00	1.55E-02	2.00E-01	1.08E-01	1.15E-01	3.22E-03	2.49E-01	2.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E+00	6.74E-03	7.32E-03
200-WA-1	216-S-1&2	8.61E+00	6.41E+02	1.78E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E+02
200-OA-1	216-S-10P	1.02E+02	9.35E+02	1.91E+00	5.02E+01	1.99E+02	0.00E+00	0.00E+00	7.96E+00	0.00E+00	1.99E+02	8.12E-03	1.24E+00	2.89E+00	0.00E+00	6.73E+03	3.05E+02	1.71E+03	1.50E+03	4.94E+03	0.00E+00	5.22E+03	7.77E+02	4.98E+01	1.47E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-02	6.10E+01
200-WA-1	216-S-12	5.47E-03	1.03E+01	2.86E+00	1.89E-05	8.93E-04	0.00E+00	0.00E+00	4.15E-08	0.00E+00	6.86E-06	1.76E-05	0.00E+00	3.67E-07	0.00E+00	6.12E-05	1.23E-04	7.72E+01	8.28E-03	9.16E-05	0.00E+00	3.49E-04	9.73E-05	0.00E+00	5.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.59E-05	2.29E+00
200-DV-1	216-S-13	1.71E-01	4.69E+02	8.37E-02	6.01E-02	1.13E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	4.83E-02	0.00E+00	3.28E-03	0.00E+00	7.18E+00	4.45E+03	5.55E+03	1.29E+02	9.25E-02	9.69E+01	7.62E-01	0.00E+00	8.94E+00	1.24E+01	0.00E+00	1.82E-03	0.00E+00	0.00E+00	6.73E-02	2.04E-01
200-WA-1	216-S-14	3.10E-03	2.42E+01	4.32E-03	2.22E-03	5.85E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03	0.00E+00	0.00E+00	0.00E+00	3.19E-03	1.98E-01	2.64E+01	6.68E+00	4.78E-03	0.00E+00	3.93E-02	0.00E+00	0.00E+00	6.40E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.46E-03	9.38E-03
200-CW-1	216-S-16P	5.06E+02	1.72E+04	4.89E-01	2.38E-03	5.02E-02	0.00E+00	0.00E+00	1.29E+00	0.00E+00	3.80E-04	2.15E-03	9.86E-07	3.79E-04	0.00E+00	6.69E+01	6.88E+02	7.41E+04	6.57E+04	4.46E-03	2.71E+00	3.95E-02	2.92E+02	2.52E-01	6.01E-02	0.00E+00	5.10E-05	0.00E+00	0.00E+00	5.23E-03	3.51E+02
200-CW-1	216-S-17	2.87E+02	7.15E+03	9.63E+00	1.62E-01	1.22E+00	0.00E+00	0.00E+00	5.35E-01	0.00E+00	1.01E-02	4.56E-02	5.77E-04	2.00E-02	0.00E+00	2.85E+01	2.95E+02	3.08E+04	2.73E+04	1.04E-01	4.37E+02	9.71E+03	1.21E+02	1.68E+02	9.94E+02	0.00E+00	3.54E-05	0.00E+00	0.00E+00	6.87E-02	2.17E-01
200-OA-1	216-S-19	1.01E+01	2.01E+02	0.00E+00	1.19E+01	4.73E+01	0.00E+00	0.00E+00	1.89E+00	0.00E+00	4.73E+01	0.00E+00	0.00E+00	6.85E-01	0.00E+00	1.60E+03	7.22E+01	5.43E+01	0.00E+00	1.17E+03	0.00E+00	1.24E+03	1.84E+02	1.18E+01	3.50E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-02
200-WA-1	216-S-20	2.76E+00	1.58E+04	0.00E+00	3.68E+02	1.46E+03	0.00E+00	0.00E+00	2.96E-01	0.00E+00	7.08E+00	3.76E+02	8.85E-01	7.82E-02	0.00E+00	1.29E+03	9.56E+01	3.42E+04	3.88E+03	4.19E+02	5.58E+01	1.36E+03	3.14E+01	1.80E+00	3.97E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E-04	3.38E+01
200-DV-1	216-S-21	1.07E+00	2.66E+02	4.85E+01	4.60E-01	6.02E+00	6.26E-05	0.00E+00	2.04E-01	8.47E-06	5.89E-02	1.23E-01	6.05E-05	3.17E-02	0.00E+00	1.96E+02	7.79E+00	2.23E+02	1.07E+02	1.51E+00	5.30E-02	1.44E+02	2.20E+01	2.54E+00	3.89E+01	0.00E+00	3.50E-01	0.00E+00	1.43E+02	7.58E-01	4.39E-02
200-WA-1	216-S-22	6.40E-03	2.28E-01	0.00E+00	2.53E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+01	0.00E+00	0.00E+00	0.00E+00	1.26E-01	0.00E+00	0.00E+00	2.25E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-09
200-WA-1	216-S-23	7.30E-01	2.09E+01	5.85E-04	2.48E-06	6.00E-05	0.00E+00	0.00E+00	1.56E-03	0.00E+00	4.55E-07	2.49E-06	1.18E-09	4.40E-07	0.00E+00	8.11E-02	8.21E-01	8.99E+01	7.97E+01	5.34E-06	0.00E+00	4.73E-05	3.54E-01	0.00E+00	7.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.25E-06	1.45E-06
200-WA-1	216-S-25	4.42E+00	1.43E+02	0.00E+00	2.08E+00	2.09E+01	0.00E+00	0.00E+00	8.38E-01	0.00E+00	3.52E+00	2.72E-01	0.00E+00	6.76E-02	0.00E+00	8.07E+02	6.02E+04	7.48E+04	0.00E+00	8.72E+01	1.31E+03	5.89E+02	9.02E+01	1.22E+02	1.57E+02	0.00E+00	2.47E-02	0.00E+00	5.78E+02	2.47E-02	1.18E-01
200-OA-1	216-S-26	3.22E+00	6.94E+01	0.00E+00	4.10E+00	1.63E+01	0.00E+00	0.00E+00	6.52E-01	0.00E+00	1.63E+01	1.38E-05	2.34E-07	2.36E-01	0.00E+00	5.51E+02	2.49E+01	1.87E+01	0.00E+00	4.04E+02	0.00E+00	4.27E+02	6.35E+01	4.07E+00	1.21E+02	0.00E+00	0.00E+00	0.00E+00	1.97E-05	0.00E+00	9.48E-03
200-WA-1	216-S-3	2.53E-01	1.27E+01	2.28E+00	4.82E-02	5.68E-01	2.95E-06	0.00E+00	2.21E-02	3.99E-07	5.91E-03	5.15E-03	2.48E-06	1.47E-03	0.00E+00	2.12E+01	3.60E+00	1.13E+01	5.03E+00	7.05E-02	7.64E-02	1.55E+01	2.38E+00	2.76E-01	4.15E+00	0.00E+00	3.28E-03	0.00E+00	1.54E+01	3.57E-02	1.81E-01
200-WA-1	216-S-4	5.39E-02	4.59E-01	0.00E+00	9.25E-03	1.06E-01	0.00E+00	0.00E+00	4.25E-03	0.00E+00	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.08E+00	1.57E-01	1.09E-01	0.00E+00	0.00E+00	0.00E+00	3.00E+00	4.59E-01	5.31E-02	7.97E-01	0.00E+00	0.00E+00	0.00E+00	2.98E+00	0.00E+00	1.96E-05
200-WA-1	216-S-5	1.07E+02	4.78E+03	1.21E+01	1.44E+00	2.25E+00	0.00E+00	0.00E+00	3.58E-01	0.00E+00	1.28E-04	9.09E-02	6.66E-03	1.66E-01	0.00E+00	1.86E+01	3.13E+02	2.06E+04	1.83E+04	5.15E-01	5.45E+00	8.99E-01	8.12E+01	5.06E-01	1.65E+00	0.00E+00	1.03E-04	0.00E+00	0.00E+00	1.07E-01	4.36E+02
200-WA-1	216-S-6	5.81E+01	2.43E+03	2.79E+00	1.86E-03	8.61E-03	0.00E+00	0.00E+00	1.82E-01	0.00E+00	6.39E-05	9.41E-04	1.66E-07	1.56E-04	0.00E+00	9.45E+00	2.16E+02	1.05E+04	9.27E+03	7.50E-04	4.22E+00	6.65E-03	4.12E+01	3.92E-01	9.96E-03	0.00E+00	7.94E-05	0.00E+00	0.00E+00	8.82E-04	3.38E+02
200-WA-1	216-S-7	1.28E+01	5.85E+02	1.61E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E+02
200-WA-1	216-S-8	7.22E-01	1.59E+05	2.84E+04	1.30E+02	3.58E+03	0.00E+00	0.00E+00	4.63E-01	0.00E+00	0.00E+00	1.33E+02	7.23E-02	4.36E+01	0.00E+00	1.87E+02	1.30E+03	1.73E+05	4.39E+04	2.79E+02	0.00E+00	2.30E+03	3.67E+02	0.00E+00	4.21E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E+02	2.90E+01
200-DV-1	216-S-9	2.61E+00	3.92E+01	1.03E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E+01
200-OA-1	216-T-1	7.04E+00	7.43E+02	3.89E+00	1.77E+01	6.88E+01	0.00E+00	0.00E+00	4.66E-02	0.00E+00	1.48E-01	1.77E+01	0.00E+00	2.70E-01	0.00E+00	3.36E+02	1.32E+01	1.61E+03	1.82E+02	2.21E+01	0.00E+00	2.03E+02	4.41E+01	2.40E+00	3.24E+01	0.00E+00	0.00E+00	0.00E+00	1.19E+00	0.00E+00	9.08E-03
200-WA-1	216-T-12	4.85E-01	1.02E+02	1.12E-01	3.58E-01	8.47E-01	3.20E-01	0.00E+00	1.04E-02	4.52E-02	0.00E+00	1.91E-01	4.46E-04	1.51E-02	0.00E+00	3.31E+01	2.05E+04	2.55E+04	3.90E+00	3.83E-01	4.47E+02	1.19E+01	5.04E-01	4.17E+01	2.76E+00	0.00E+00	8.41E-03	0.00E+00	0.00E+00	2.43E+00	2.66E+01
200-DV-1	216-T-14	4.11E-02	1.50E+04	2.14E+01	5.50E+01	1.47E+02	5.99E+01	0.00E+00	9.05E-02	7.17E+00	0.00E+00	2.66E+01	6.95E-02	0.00E+00	0.00E+00	4.09E+01	1.05E+02	2.86E+04	6.19E+02	6.12E+01	1.81E+03	1.89E+03	8.05E+01	1.00E+03	4.38E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E+02	1.26E+01
200-DV-1	216-T-15	4.25E-02	1.56E+04	2.22E+01	5.69E+01	1.52E+02	6.21E+01	0.00E+00	9.37E-02	7.42E+00	0.00E+00	2.75E+01	7.20E-02	0.00E+00	0.00E+00	4.23E+01	1.09E+02	2.96E+04	6.41E+02	6.34E+01	1.88E+03	1.96E+03	8.34E+01	1.04E+03	4.54E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E+02	1.30E+01
200-DV-1	216-T-16	4.16E-02	1.52E+04	2.17E+01	5.57E+01	1.49E+02	6.07E+01	0.00E+00	9.18E-02	7.27E+00	0.00E+00	2.70E+01	7.05E-02	0.00E+00	0.00E+00	4.14E+01	1.07E+02	2.90E+04	6.27E+02	6.20E+01	1.84E+03	1.92E+03	8.17E+01	1.01E+03	4.44E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.90E+02	1.27E+01
200-DV-1	216-T-17	3.20E-02	1.17E+04	1.67E+01	4.29E+01	1.15E+02	4.68E+01	0.00E+00	7.06E-02	5.59E+00	0.00E+00	2.07E+01	5.43E-02	0.00E+00	0.00E+00	3.19E+01	8.20E+01	2.23E+04	4.83E+02	4.77E+01	1.41E+03	1.48E+03	6.28E+01	7.80E+02	3.42E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+02	9.80E+00
200-DV-1	216-T-18	4.44E-02	7.61E+03	0.00E+00	4.97E+01	4.02E+01	3.01E+02	0.00E+00	3.95E-01	3.85E+01	0.00E+00	7.06E+01	0.00E+00	0.00E+00	1.42E+02	7.83E+01	4.12E+01	8.48E+03	1.96E+03	1.32E+02	1.68E+03	5.15E+02	1.10E+02	1.09E+03	1.72E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-02	3.06E+01
200-DV-1	216-T-19	6.17E+00	9.93E+03	0.00E+00	3.28E+01	9.10E+01	3.03E+01	1.48E-02	2.07E-01	0.00E+00	1.90E-01	2.29E+01	6.34E-02	3.24E+00	0.00E+00	1.95E+02	9.95E+02	1.96E+04	7.77E-01	5.42E+01	1.27E+03	7.79E+02	4.93E+01	1.11E+03	2.63E+02	2.79E+02	0.00E+00	0.00E+00	1.24E+02	1.23E-06	1.96E+00
200-WA-1	216-T-2	2.58E-01	2.17E+03	0.00E+00	5.06E+01	2.01E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.17E+01	0.00E+00	0.00E+00	0.00E+00	1.74E+02	1.30E+01	4.70E+03	5.34E+02	5.71E+01	0.00E+00	1.86E+02	0.00E+00	0.00E+00	5.44E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-02
200-WA-1	216-T-20	7.72E-04	2.77E+00	1.39E-02	3.83E-03	1.16E-02	2.36E-03	0.00E+00	7.97E-06	6.11E-04	0.00E+00	2.63E-03	0.00E+00	0.00E+00	0.00E+00	3.69E-03	2.16E-02	5.59E+00	2.09E-01	2.25E-01	1.65E-01	2.93E-01	7.27E-03	8.82E-02	2.75E-01	0.00E+00	1.49E-05	0.00E+00	0.00E+00	3.89E-02	8.76E-04
200-DV-1	216-T-21	1.89E-02	6.92E+03	9.86E+00	2.53E+01	6.77E+01	2.76E+01	0.00E+00	4.17E-02	3.30E+00	0.00E+00	1.22E+01	3.20E-02	0.00E+00	0.00E+00	1.88E+01	4.84E+01	1.32E+04	2.85E+02	2.82E+01	8.34E+02	8.71E+02	3.71E+01	4.60E+02	2.02E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E+02	5.78E+00
200-DV-1	216-T-22	6.29E-02	2.30E+04	3.28E+01	8.41E+01	2.25E+02	9.17E+01	0.00E+00	1.39E-01	1.10E+01	0.00E+00	4.07E+01	1.06E-01	0.00E+00	0.00E+00	6.25E+01	1.61E+02	4.38E+04	9.47E+02	9.37E+01	2.77E+03	2.90E+03	1.23E+02	1.53E+03	6.71E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E+02	1.92E+01
200-DV-1	216-T-23	6.07E-02	2.22E+04	3.16E+01	8.12E+01	2.17E+02	8.85E+01	0.00E+00	1.34E-01	1.06E+01	0.00E+00	3.93E+01	1.03E-01	0.00E+00	0.00E+00	6.04E+01	1.55E+02	4.23E+04	9.14E+02	9.04E+01	2.68E+03	2.80E+03	1.19E+02	1.48E+03	6.47E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.69E+02	1.85E+01
200-DV-1	216-T-24	6.29E-02	2.30E+04	3.28E+01	8.41E+01	2.25E+02	9.17E+01	0.00E+00	1.39E-01	1.10E+01	0.00E+00	4.07E+01	1.06E-01	0.00E+00	0.00E+00	6.25E+01	1.61E+02	4.38E+04	9.47E+02	9.37E+01	2.77E+03	2.90E+03	1.23E+02	1.53E+03	6.71E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E+02	1.92E+01
200-DV-1	216-T-25	1.22E-01	4.47E+04	6.36E+01	1.63E+02	4.37E+02	1.78E+02	0.00E+00	2.69E-01	2.13E+01	0.00E+00	7.89E+01	2.06E-01	0.00E+00	0.00E+00	1.21E+02	3.12E+02	8.49E+04	1.84E+03	1.82E+02	5.38E+03	5.62E+03	2.39E+02	2.97E+03	1.30E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E+03	3.73E+01
200-DV-1	216-T-26	7.91E-01	6.60E+04	0.00E+00	4.15E+02	3.37E+02	2.48E+03	0.00E+00	3.25E+00	3.17E+02	0.00E+00	5.85E+02	0.00E+00	0.00E+00	1.17E+03	6.53E+02	3.57E+02	7.35E+04	1.70E+04	1.11E+03	1.46E+04	4.46E+03	9.30E+02	9.43E+03	1.49E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-01	2.53E+02
200-WA-1	216-T-27	5.25E-01	1.76E+03	0.00E+00	4.14E+01	1.63E+02	0.00E+00	0.00E+00	1.33E-02	0.00E+00	3.17E-01	4.18E+01	1.50E-01	4.82E-03	0.00E+00	1.42E+02	1.06E+01	3.80E+03	4.32E+02	4.62E+01	7.93E+00	1.51E+02	2.21E+00	1.26E-01	4.40E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.91E-05	1.21E+01
200-WA-1	216-T-28	8.01E-01	3.30E+03	0.00E+00	2.56E+02	2.30E+02	0.00E+00	0.00E+00	4.51E-02	0.00E+00	1.07E+00	5.99E+01	1.83E+00	1.91E-02	0.00E+00	2.16E+02	2.25E+01	7.40E+03	6.11E+02	8.98E+01	2.61E+02	2.66E+02	8.95E+00	5.08E-01	9.30E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03	4.17E+02
200-WA-1	216-T-29	1.92E-03	3.81E-02	0.00E+00	4.86E-04	1.92E-03	6.23E-05	2.56E-08	6.58E-08	4.11E-06	0.00E+00	4.95E-04	1.10E-08	5.61E-06	0.00E+00	1.66E-03	1.79E-03	6.59E-02	5.10E-03	7.58E-03	4.10E-03	4.71E-03	1.22E-04	2.28E-03	8.41E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-04	2.56E-04
200-DV-1	216-T-3	6.48E-01	3.71E+04	0.00E+00	8.00E+02	7.85E+02	1.19E+03	4.76E+02	0.00E+00	0.00E+00	0.00E+00	2.99E+02	3.77E-01	2.43E+02	0.00E+00	7.04E+02	1.50E+04	8.60E+04	2.06E-01	8.12E+02	9.48E+03	9.82E+02	1.15E+01	6.25E+03	1.34E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-07	1.88E-01
200-DV-1	216-T-32	1.26E+00	8.68E+04	0.00E+00	5.83E+02	1.84E+03	7.55E+02	1.46E+02	0.00E+00	0.00E+00	0.00E+00	7.01E+02	8.85E-01	2.21E+02	0.00E+00	1.12E+03	3.51E+04	2.02E+05	4.54E-01	5.46E+02	2.22E+04	2.26E+03	0.00E+00	1.46E+04	3.14E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-09	7.66E-02
200-WA-1	216-T-33	3.68E-01	9.03E+01	0.00E+00	2.10E+00	8.37E+00	0.00E+00	0.00E+00	7.42E-05	0.00E+00	0.00E+00	4.02E+00	0.00E+00	1.81E-04	0.00E+00	8.96E+00	2.46E+02	3.63E+02	2.22E+01	8.17E+00	5.36E+00	7.74E+00	0.00E+00	4.98E-01	2.26E+00	0.00E+00	1.01E-04	0.00E+00	0.00E+00	1.01E-04	3.90E+01
200-WA-1	216-T-34	5.87E-01	2.15E+04	0.00E+00	5.01E+02	1.99E+03	0.00E+00	0.00E+00	1.50E-02	0.00E+00	3.57E-01	5.12E+02	1.09E-01	3.75E-03	0.00E+00	1.73E+03	1.29E+02	4.66E+04	5.29E+03	5.66E+02	0.00E+00	1.84E+03	1.59E+00	9.01E-02	5.39E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.65E+01
200-WA-1	216-T-35	2.29E-01	2.50E+00	0.00E+00	5.82E-02	8.82E-01	0.00E+00	0.00E+00	2.56E-02	0.00E+00	6.09E-01	0.00E+00	1.85E-01	6.39E-03	0.00E+00	2.24E+01	8.91E-01	6.09E-01	0.00E+00	0.00E+00	0.00E+00	1.31E+01	2.70E+00	1.53E-01	1.67E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.82E+00
200-WA-1	216-T-36	1.60E-02	6.01E+02	0.00E+00	1.40E+01	5.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E+01	0.00E+00	0.00E+00	0.00E+00	6.22E+01	3.62E+00	1.30E+03	1.48E+02	6.05E+01	0.00E+00	5.16E+01	0.00E+00	0.00E+00	1.51E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E+02
200-SW-2	216-T-4A	1.06E+03	7.73E+03	0.00E+00	1.16E+02	4.59E+02	1.14E+01	4.66E-03	5.39E-02	7.49E-01	6.23E-02	1.18E+02	1.91E-03	1.02E+00	0.00E+00	3.99E+02	1.78E+03	1.40E+04	1.22E+03	1.39E+03	7.50E+02	9.02E+02	2.26E+01	4.16E+02	1.73E+02	6.07E+01	7.16E-04	0.00E+00	2.71E+01	4.66E+01	5.84E+01
200-DV-1	216-T-5	3.21E-01	5.63E+04	0.00E+00	2.80E+02	5.05E+02	2.61E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E+02	3.37E-01	0.00E+00	0.00E+00	2.01E+02	3.47E+02	1.00E+05	6.43E+00	3.01E+02	8.60E+03	6.22E+03	3.83E+02	5.46E+03	1.44E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-05	9.60E+00
200-DV-1	216-T-6	3.33E+00	1.20E+04	0.00E+00	7.90E+01	9.00E+01	1.10E+02	4.27E+01	0.00E+00	0.00E+00	0.00E+00	3.79E+01	9.70E-02	2.07E+01	0.00E+00	7.51E+01	7.64E+02	2.88E+04	1.27E+00	1.07E+02	2.44E+03	1.76E+03	1.06E+02	1.58E+03	4.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-06	1.72E+00
200-DV-1	216-T-7	6.19E+00	3.54E+05	0.00E+00	1.81E+03	4.46E+03	1.92E+03	2.62E+02	0.00E+00	0.00E+00	0.00E+00	1.48E+03	2.59E+00	4.25E+02	0.00E+00	2.37E+03	7.45E+04	7.10E+05	3.12E+01	2.01E+03	6.04E+04	3.11E+04	1.90E+03	4.34E+04	1.01E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-05	4.73E+01
200-WA-1	216-T-8	1.31E-02	4.19E+01	0.00E+00	9.77E-01	3.89E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.39E+00	0.00E+00	0.00E+00	0.00E+00	4.75E+00	2.52E-01	9.07E+01	1.03E+01	5.12E+00	0.00E+00	3.60E+00	0.00E+00	0.00E+00	1.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E+01
200-WA-1	216-U-1&2	5.07E-01	2.90E+04	0.00E+00	2.14E+01	3.54E+01	7.77E+00	0.00E+00	8.25E-03	0.00E+00	0.00E+00	1.95E+01	0.00E+00	1.22E-02	0.00E+00	4.12E+01	1.65E+04	2.06E+04	1.52E+03	2.30E+03	1.41E+03	6.04E+04	0.00E+00	3.32E+01	6.98E+02	0.00E+00	1.41E-01	3.94E+02	1.31E+03	1.41E+00	4.78E+02
200-CW-1	216-U-10	1.81E+03	2.66E+04	3.39E+02	8.93E+02	8.63E+00	0.00E+00	0.00E+00	1.25E+00	2.15E-05	1.83E+01	1.56E+01	9.66E-07	3.17E+01	0.00E+00	8.28E+04	9.80E+04	1.09E+05	6.39E+04	2.73E+05	4.07E+04	1.05E+05	1.03E+04	1.74E+03	1.09E+04	1.26E+04	6.31E-03	1.31E+03	3.12E+00	2.99E+03	8.66E+01
200-WA-1	216-U-12	1.58E+00	3.70E+02	2.34E+01	2.74E+00	1.82E+00	0.00E+00	0.00E+00	8.43E-02	4.37E-10	1.40E-08	7.85E-01	6.18E-12	1.18E-01	0.00E+00	2.59E+02	1.61E+05	1.99E+05	1.17E+01	8.36E-01	3.50E+03	1.43E+01	2.83E-08	3.23E+02	6.17E+00	0.00E+00	6.11E-01	0.00E+00	0.00E+00	6.64E-02	3.63E+02
200-WA-1	216-U-13	5.59E-04	6.91E+00	0.00E+00	1.61E-01	6.41E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-01	0.00E+00	0.00E+00	0.00E+00	5.55E-01	4.16E-02	1.50E+01	1.70E+00	1.86E-01	0.00E+00	5.92E-01	0.00E+00	0.00E+00	1.73E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E-01
200-WA-1	216-U-14	1.40E+02	1.52E+03	1.72E+01	4.62E+01	4.20E-01	0.00E+00	0.00E+00	8.18E-02	9.80E-07	9.64E-01	7.01E-01	6.25E-08	1.42E+00	0.00E+00	3.28E+03	4.47E+03	5.99E+03	4.17E+03	1.24E+04	1.91E+03	4.50E+03	4.84E+02	7.41E+01	4.71E+02	0.00E+00	2.78E-04	0.00E+00	1.33E-01	1.59E+02	5.23E+00
200-WA-1	216-U-15	5.03E-03	2.52E+02	0.00E+00	1.24E+00	4.87E+00	6.62E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+00	0.00E+00	0.00E+00	0.00E+00	4.22E+00	1.13E+00	1.15E+02	1.83E+01	1.96E+01	1.16E+01	5.15E+02	0.00E+00	0.00E+00	6.10E+00	0.00E+00	1.20E-03	3.36E+00	1.12E+01	1.20E-02	3.92E+00

OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-WA-1	216-U-16	1.19E+01	3.81E+02	1.76E+01	1.62E+01	0.00E+00	0.00E+00	0.00E+00	2.72E-02	0.00E+00	4.26E-01	6.82E-01	0.00E+00	1.20E+00	0.00E+00	1.42E+03	5.73E+01	1.49E+03	1.32E+03	4.71E+01	0.00E+00	8.67E+02	1.99E+02	2.55E+01	1.20E+02	0.00E+00	5.09E-01	2.08E+03	8.79E+02	0.00E+00	2.31E-02
200-WA-1	216-U-17	1.25E-01	2.33E+01	0.00E+00	1.20E-01	1.12E-01	0.00E+00	0.00E+00	6.66E-03	0.00E+00	0.00E+00	5.72E-02	0.00E+00	9.36E-03	0.00E+00	2.05E+01	1.27E+04	1.58E+04	0.00E+00	0.00E+00	2.77E+02	0.00E+00	0.00E+00	2.55E+01	0.00E+00	0.00E+00	5.20E-03	0.00E+00	0.00E+00	5.20E-03	2.89E-02
200-WA-1	216-U-3	6.65E-02	5.69E-01	0.00E+00	1.14E-02	1.31E-01	0.00E+00	0.00E+00	5.25E-03	0.00E+00	1.38E-03	1.32E-04	0.00E+00	2.15E-05	0.00E+00	5.04E+00	2.92E+01	3.64E+01	0.00E+00	0.00E+00	6.36E-01	3.70E+00	5.67E-01	8.83E-02	9.84E-01	0.00E+00	1.20E-05	0.00E+00	3.67E+00	1.20E-05	1.51E+00
200-WA-1	216-U-4	1.02E-02	1.14E+02	0.00E+00	2.65E+00	1.05E+01	1.66E-02	2.47E-05	0.00E+00	0.00E+00	0.00E+00	2.71E+00	2.15E-05	5.10E-03	0.00E+00	9.13E+00	1.09E+00	2.46E+02	2.80E+01	2.99E+00	5.40E-01	9.74E+00	0.00E+00	3.56E-01	2.85E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-14	1.63E-03
200-WA-1	216-U-4A	1.99E-02	3.39E-01	0.00E+00	7.89E-03	4.79E-02	0.00E+00	0.00E+00	1.01E-03	0.00E+00	2.40E-02	7.65E-03	7.80E-03	2.74E-04	0.00E+00	9.84E-01	3.92E-02	6.96E-01	7.90E-02	8.45E-03	0.00E+00	5.78E-01	1.19E-01	6.73E-03	7.37E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.13E-01
200-WA-1	216-U-4B	2.18E-03	7.85E-03	0.00E+00	1.58E-04	2.39E-03	0.00E+00	0.00E+00	7.48E-05	0.00E+00	1.78E-03	0.00E+00	4.71E-04	1.98E-05	0.00E+00	7.05E-02	2.80E-03	1.91E-03	0.00E+00	0.00E+00	0.00E+00	4.14E-02	8.50E-03	4.83E-04	5.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-02
200-WA-1	216-U-5	9.19E-02	1.28E+04	0.00E+00	1.54E+02	3.22E+02	0.00E+00	0.00E+00	2.69E-01	0.00E+00	1.42E+01	8.25E+01	0.00E+00	0.00E+00	0.00E+00	1.18E+02	9.49E+01	8.36E+03	9.78E+03	1.77E+02	0.00E+00	3.25E+03	2.31E+02	0.00E+00	3.96E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.76E+01	5.68E+02
200-WA-1	216-U-6	9.19E-02	1.28E+04	0.00E+00	1.54E+02	3.22E+02	0.00E+00	0.00E+00	2.69E-01	0.00E+00	1.42E+01	8.25E+01	0.00E+00	0.00E+00	0.00E+00	1.18E+02	9.49E+01	8.36E+03	9.78E+03	1.77E+02	0.00E+00	3.25E+03	2.31E+02	0.00E+00	3.96E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.76E+01	5.68E+02
200-WA-1	216-U-7	2.92E-04	5.89E-04	1.77E-07	3.74E-05	2.13E-05	0.00E+00	0.00E+00	4.10E-12	6.69E-11	2.14E-09	1.78E-05	8.19E-13	3.11E-10	0.00E+00	1.64E-02	3.02E-01	2.47E-01	4.15E-07	1.80E-07	1.17E-01	5.67E-02	4.34E-09	4.59E-04	6.07E-04	0.00E+00	9.00E-09	0.00E+00	0.00E+00	3.78E-08	5.44E-10
200-WA-1	216-U-8	1.28E+01	9.78E+02	0.00E+00	1.21E+01	4.69E+00	6.74E-05	2.77E-08	2.69E-01	4.44E-06	0.00E+00	2.39E+00	1.22E-08	3.91E-01	0.00E+00	8.56E+02	5.30E+05	6.58E+05	6.36E-04	8.18E-03	1.16E+04	5.51E+01	1.32E-04	1.07E+03	9.86E+02	0.00E+00	2.17E-01	0.00E+00	0.00E+00	2.17E-01	1.60E+03
200-OA-1	216-W-LWC	1.86E+01	8.12E+03	1.31E+02	3.75E+02	2.39E+00	0.00E+00	0.00E+00	2.31E-02	0.00E+00	8.05E+00	3.61E+00	0.00E+00	4.96E+00	0.00E+00	1.59E+03	6.96E+02	1.02E+02	0.00E+00	0.00E+00	6.94E+03	1.32E+03	2.03E+03	5.33E+01	1.13E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E+03	3.07E-01
200-PW-1	216-Z-1&2	1.63E+00	3.07E+03	4.55E+02	2.99E+00	2.52E+00	0.00E+00	0.00E+00	1.04E+00	0.00E+00	2.79E+00	1.14E+00	0.00E+00	1.01E+02	4.09E+01	1.93E+01	2.60E+04	2.93E+04	1.86E+02	1.56E+02	2.14E+00	4.62E+00	2.58E+00	6.31E+03	1.21E+03	2.42E+03	6.38E+01	2.53E+02	0.00E+00	1.47E-01	5.56E-04
200-PW-6	216-Z-10	1.01E-01	2.40E+00	0.00E+00	1.47E-01	3.22E-03	0.00E+00	0.00E+00	8.83E-05	0.00E+00	0.00E+00	3.59E-03	0.00E+00	9.35E-02	1.18E-04	9.77E-02	2.40E+01	3.84E+02	4.27E+00	1.23E-01	1.47E-01	0.00E+00	0.00E+00	5.82E+00	3.43E+00	2.94E-04	5.89E-02	0.00E+00	0.00E+00	0.00E+00	3.30E-02
200-CW-5	216-Z-11	1.54E+02	4.16E+03	2.84E+01	4.11E+02	2.00E+02	0.00E+00	0.00E+00	1.26E-01	0.00E+00	2.30E+02	2.23E+00	0.00E+00	8.07E+00	0.00E+00	7.18E+03	8.82E+02	8.59E+03	7.52E-01	2.51E+04	2.59E-02	5.23E+03	7.98E+02	5.44E+01	1.01E+03	1.09E+02	0.00E+00	2.50E+03	3.19E+00	0.00E+00	1.12E-01
200-PW-1	216-Z-12	7.19E+00	8.53E+04	2.37E+04	7.10E+01	1.31E+02	0.00E+00	0.00E+00	5.40E+01	0.00E+00	1.46E+02	5.94E+01	5.18E-04	2.01E+02	2.14E+03	1.01E+03	4.87E+04	3.86E+05	6.95E+02	4.32E+03	2.72E+01	2.41E+02	1.35E+02	1.29E+04	2.32E+03	1.18E+04	1.21E+02	1.23E+03	0.00E+00	2.82E+00	1.09E-02
200-WA-1	216-Z-13	1.44E+00	3.38E+00	0.00E+00	1.19E-01	6.52E-01	0.00E+00	0.00E+00	3.70E-02	0.00E+00	2.58E-02	1.31E-02	0.00E+00	9.13E-03	0.00E+00	3.41E+01	1.09E+00	0.00E+00	0.00E+00	1.33E+02	0.00E+00	1.96E+01	2.82E+00	3.26E-01	4.89E+00	1.54E+01	0.00E+00	0.00E+00	1.84E+01	0.00E+00	7.40E-04
200-WA-1	216-Z-14	1.46E+00	3.45E+00	0.00E+00	1.21E-01	6.65E-01	0.00E+00	0.00E+00	3.78E-02	0.00E+00	2.63E-02	1.34E-02	0.00E+00	9.31E-03	0.00E+00	3.48E+01	1.11E+00	0.00E+00	0.00E+00	1.33E+02	0.00E+00	2.00E+01	2.87E+00	3.33E-01	4.99E+00	1.54E+01	0.00E+00	0.00E+00	1.87E+01	0.00E+00	7.57E-04
200-WA-1	216-Z-15	1.41E+00	5.34E+00	0.00E+00	1.94E-01	1.34E+00	0.00E+00	0.00E+00	8.24E-04	0.00E+00	1.50E+00	1.49E-02	0.00E+00	5.31E-02	0.00E+00	4.81E+01	1.91E+00	0.00E+00	0.00E+00	1.68E+02	0.00E+00	3.50E+01	5.34E+00	3.61E-01	6.76E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-02	0.00E+00	8.04E-04
200-WA-1	216-Z-16	1.64E+00	7.67E+03	0.00E+00	7.84E+00	1.57E-02	0.00E+00	0.00E+00	2.82E-01	0.00E+00	0.00E+00	6.27E-02	0.00E+00	2.98E+02	3.76E-01	3.14E+00	7.68E+04	8.36E+04	5.49E+02	3.92E+02	6.12E+00	0.00E+00	0.00E+00	1.86E+04	3.58E+03	9.41E-01	1.88E+02	0.00E+00	0.00E+00	0.00E+00	3.30E-02
200-WA-1	216-Z-17	1.28E+00	5.96E+03	0.00E+00	6.09E+00	1.22E-02	0.00E+00	0.00E+00	2.19E-01	0.00E+00	0.00E+00	4.87E-02	0.00E+00	2.31E+02	2.92E-01	2.44E+00	5.96E+04	6.49E+04	4.26E+02	3.05E+02	4.75E+00	0.00E+00	0.00E+00	1.45E+04	2.78E+03	7.31E-01	1.46E+02	0.00E+00	0.00E+00	0.00E+00	2.57E-02
200-PW-1	216-Z-18	1.65E-01	2.49E+04	6.92E+03	2.05E+01	3.83E+01	0.00E+00	0.00E+00	1.58E+01	0.00E+00	4.25E+01	1.73E+01	0.00E+00	2.00E+01	6.24E+02	2.94E+02	1.42E+01	1.11E+05	1.56E+02	1.25E+03	7.35E+00	7.04E+01	3.94E+01	1.50E+03	1.30E+02	2.92E+04	5.25E+00	3.05E+03	0.00E+00	2.00E+00	2.85E-03
200-CW-5	216-Z-19	1.45E+02	3.12E+03	2.09E+01	3.03E+02	2.09E+02	0.00E+00	0.00E+00	1.33E-01	0.00E+00	2.41E+02	2.34E+00	0.00E+00	8.42E+00	0.00E+00	7.54E+03	6.83E+02	6.32E+03	3.12E-01	2.64E+04	1.07E-02	5.48E+03	8.37E+02	5.68E+01	1.06E+03	8.00E+01	0.00E+00	1.84E+03	3.35E+00	0.00E+00	1.18E-01
200-PW-1	216-Z-1A	1.91E-01	2.70E+04	7.92E+03	2.34E+01	4.38E+01	0.00E+00	0.00E+00	1.77E+01	0.00E+00	4.82E+01	1.98E+01	0.00E+00	2.28E+01	6.77E+02	3.19E+02	1.63E+01	1.22E+05	2.09E+02	1.36E+03	8.37E+00	8.05E+01	4.27E+01	1.64E+03	1.49E+02	6.44E+04	5.92E+00	6.73E+03	0.00E+00	2.52E+01	4.09E-03
200-CW-5	216-Z-1D	4.65E+02	1.35E+04	9.27E+01	1.34E+03	5.70E+02	0.00E+00	0.00E+00	3.61E-01	0.00E+00	6.56E+02	6.37E+00	0.00E+00	2.31E+01	0.00E+00	2.05E+04	2.85E+03	2.81E+04	2.60E+00	7.18E+04	8.95E-02	1.49E+04	2.28E+03	1.56E+02	2.88E+03	3.55E+02	0.00E+00	8.16E+03	9.12E+00	0.00E+00	3.17E-01
200-CW-5	216-Z-20	1.19E+02	4.96E+03	3.45E+01	4.98E+02	3.57E+01	0.00E+00	0.00E+00	2.26E-02	0.00E+00	4.12E+01	4.00E-01	0.00E+00	2.04E+00	0.00E+00	1.29E+03	1.02E+03	1.04E+04	0.00E+00	4.51E+03	0.00E+00	9.36E+02	1.43E+02	1.31E+01	1.81E+02	1.32E+02	0.00E+00	3.04E+03	5.72E-01	0.00E+00	2.01E-02
200-WA-1	216-Z-21	4.00E+01	1.63E+02	0.00E+00	5.72E+00	3.14E+01	0.00E+00	0.00E+00	1.79E+00	0.00E+00	1.24E+00	6.39E-01	0.00E+00	4.40E-01	0.00E+00	1.64E+03	5.27E+01	0.00E+00	0.00E+00	5.69E+03	0.00E+00	9.46E+02	1.36E+02	1.57E+01	2.36E+02	7.95E+02	0.00E+00	0.00E+00	8.86E+02	0.00E+00	3.40E-02
200-PW-1	216-Z-3	3.15E+00	8.76E+02	0.00E+00	4.63E+00	9.92E-02	0.00E+00	0.00E+00	3.22E-02	0.00E+00	0.00E+00	1.11E-01	0.00E+00	3.40E+01	4.30E-02	3.04E+00	8.76E+03	1.52E+04	1.46E+02	4.48E+01	4.58E+00	0.00E+00	0.00E+00	2.13E+03	4.20E+02	1.07E-01	2.15E+01	0.00E+00	0.00E+00	0.00E+00	2.97E-04
200-WA-1	216-Z-4	1.05E-03	1.15E-01	0.00E+00	1.54E-03	3.36E-05	0.00E+00	0.00E+00	4.23E-06	0.00E+00	0.00E+00	3.75E-05	0.00E+00	4.46E-03	5.63E-06	1.02E-03	1.15E+00	4.19E+00	4.53E-02	5.87E-03	1.54E-03	0.00E+00	0.00E+00	2.79E-01	6.34E-02	1.41E-05	2.82E-03	0.00E+00	0.00E+00	0.00E+00	1.58E-03
200-PW-6	216-Z-5	2.11E+00	1.22E+00	0.00E+00	3.09E+00	6.76E-02	0.00E+00	0.00E+00	4.48E-05	0.00E+00	0.00E+00	7.54E-02	0.00E+00	1.51E-01	5.97E-05	2.05E+00	1.22E+01	8.06E+03	8.97E+01	6.22E-02	3.09E+00	0.00E+00	0.00E+00	2.95E+00	6.82E+01	1.49E-04	2.99E-02	0.00E+00	0.00E+00	0.00E+00	1.67E-02
200-WA-1	216-Z-6	9.85E-03	2.44E-01	0.00E+00	1.44E-02	3.15E-04	0.00E+00	0.00E+00	8.99E-06	0.00E+00	0.00E+00	3.51E-04	0.00E+00	9.51E-03	1.20E-05	9.57E-03	2.44E+00	3.77E+01	4.18E-01	1.25E-02	1.44E-02	0.00E+00	0.00E+00	5.93E-01	3.38E-01	3.00E-05	5.99E-03	0.00E+00	0.00E+00	0.00E+00	3.35E-03
200-WA-1	216-Z-7	3.27E+00	7.39E+03	0.00E+00	1.72E+02	6.85E+02	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	1.79E+02	0.00E+00	1.25E+00	1.56E-03	5.95E+02	3.21E+02	1.97E+04	1.82E+03	2.07E+02	4.42E+00	6.33E+02	0.00E+00	7.71E+01	2.10E+02	3.90E-03	7.80E-01	0.00E+00	0.00E+00	0.00E+00	3.48E+02
200-PW-6	216-Z-8	3.32E-04	1.45E+01	4.03E+00	1.19E-02	2.23E-02	0.00E+00	0.00E+00	9.17E-03	0.00E+00	2.48E-02	1.01E-02	0.00E+00	1.16E-02	3.63E-01	1.72E-01	8.28E-03	6.48E+01	9.08E-02	7.34E-01	4.28E-03	4.25E-02	2.30E-02	8.75E-01	7.59E-02	1.68E-02	3.06E-03	0.00E+00	1.06E-02	0.00E+00	2.25E-06
200-PW-1	216-Z-9	1.40E-01	2.11E+04	5.88E+03	1.74E+01	3.26E+01	0.00E+00	0.00E+00	1.34E+01	0.00E+00	3.61E+01	1.47E+01	0.00E+00	1.69E+01	5.30E+02	2.50E+02	1.20E+01	9.45E+04	1.32E+02	1.06E+03	6.24E+00	5.98E+01	3.34E+01	1.28E+03	1.11E+02	2.57E+04	4.46E+00	2.69E+03	0.00E+00	0.00E+00	1.53E-03
WMA-A-AX	241-A-103	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-A-AX	241-A-104	1.86E-03	8.08E+01	1.57E+00	2.72E-01	2.31E+00	1.12E-03	8.86E-10	8.43E-04	1.71E-05	1.21E-01	2.78E-01	3.31E-06	2.54E-02	0.00E+00	3.91E-01	7.82E-01	4.85E+01	5.72E+01	2.20E+01	5.53E+00	1.86E+01	7.69E-01	3.31E-02	1.76E+00	0.00E+00	2.25E-02	0.00E+00	0.00E+00	7.83E-01	6.67E-02
WMA-A-AX	241-A-105	1.48E-01	7.75E+02	0.00E+00	3.14E+00	1.27E+01	0.00E+00	0.00E+00	9.68E-03	0.00E+00	4.18E+00	3.20E+00	1.74E-03	0.00E+00	0.00E+00	4.50E+00	6.41E+00	2.39E+02	8.03E+02	2.74E+01	0.00E+00	3.36E+02	8.84E+00	0.00E+00	2.67E+01	0.00E+00	4.51E+00	0.00E+00	0.00E+00	1.47E+01	7.85E-01
WMA-A-AX	241-AX-102	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-101	1.43E-03	1.92E+02	2.73E+01	1.55E+00	1.52E+00	1.79E-02	1.29E-07	5.60E-04	1.99E-03	7.62E-02	9.61E-01	0.00E+00	1.23E-02	0.00E+00	6.83E-01	1.46E+00	1.38E+02	6.23E+01	3.13E+01	3.49E+00	9.33E+00	2.04E-01	1.07E+00	5.65E+00	0.00E+00	8.93E-01	0.00E+00	0.00E+00	4.80E-01	4.83E-02
WMA-B-BX-BY	241-B-105	6.81E-02	2.68E+04	4.95E+03	1.09E+01	3.03E+02	3.57E+00	2.57E-05	3.71E-02	3.97E-01	1.52E+01	1.12E+01	0.00E+00	2.46E+00	0.00E+00	1.58E+01	2.19E+02	2.27E+04	1.23E+04	3.32E+03	6.23E+02	1.25E+03	3.01E+01	2.14E+02	7.96E+02	0.00E+00	1.78E+02	0.00E+00	0.00E+00	9.56E+01	2.77E+00
WMA-B-BX-BY	241-B-106	2.03E-02	8.18E+02	2.97E+01	2.87E+00	9.92E+00	3.11E+00	4.57E-03	2.25E-04	2.38E-03	9.21E-02	3.13E+00	6.18E-03	9.71E-01	0.00E+00	4.96E+00	2.21E+02	1.86E+03	7.39E+01	2.05E+01	1.01E+02	1.24E+01	1.83E-01	1.15E+02	2.38E+01	0.00E+00	1.07E+00	0.00E+00	0.00E+00	5.75E-01	1.68E-02
WMA-B-BX-BY	241-B-107	1.06E-02	5.13E+02	2.32E+02	1.41E+00	2.18E+00	3.84E-03	0.00E+00	3.21E-04	2.04E-04	2.00E+00	1.21E+00	7.49E-04	0.00E+00	0.00E+00	2.02E+00	1.31E+00	5.73E+02	1.99E+02	4.25E+00	6.44E-01	9.96E+00	8.65E-01	4.33E-02	5.46E+00	0.00E+00	4.73E-01	0.00E+00	0.00E+00	1.60E-01	3.53E-01
WMA-B-BX-BY	241-B-110	1.02E-02	2.36E+03	4.06E+02	1.52E+00	2.97E+01	2.82E-01	2.03E-06	4.86E-03	3.14E-02	1.81E+00	1.56E+00	5.45E-04	2.72E-01	0.00E+00	2.19E+00	1.94E+01	1.97E+03	1.07E+03	2.87E+02	4.96E+01	1.48E+02	4.26E+00	1.69E+01	6.85E+01	0.00E+00	1.41E+01	0.00E+00	0.00E+00	9.07E+00	3.77E-01
WMA-B-BX-BY	241-B-112	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-201	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-B-204	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BX-101	6.84E-04	7.04E+01	6.15E+00	7.37E-01	4.54E-01	2.93E-04	0.00E+00	2.66E-04	3.89E-05	2.80E-02	4.56E-01	1.27E-05	4.91E-03	0.00E+00	3.25E-01	5.09E-01	4.28E+01	1.18E+01	1.29E+01	7.56E-01	4.12E+00	1.04E-01	1.01E-02	2.02E+00	0.00E+00	4.11E-07	0.00E+00	0.00E+00	1.17E-01	2.31E-02
WMA-B-BX-BY	241-BX-102	1.77E-01	9.77E+03	1.12E+03	9.18E+01	6.94E+01	1.22E+01	4.60E-06	7.16E-03	7.12E-02	6.55E+00	2.03E+01	5.00E-02	5.10E-01	0.00E+00	7.10E+01	4.01E+01	4.94E+03	2.28E+03	7.03E+03	1.76E+03	2.48E+03	2.37E+01	3.83E+01	1.47E+02	0.00E+00	3.26E+01	0.00E+00	0.00E+00	1.71E+01	7.68E+03
WMA-B-BX-BY	241-BX-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BY-103	4.66E-03	1.82E+03	3.36E+02	7.39E-01	2.06E+01	2.42E-01	1.74E-06	2.52E-03	2.70E-02	1.03E+00	7.61E-01	0.00E+00	1.67E-01	0.00E+00	1.07E+00	1.48E+01	1.54E+03	8.35E+02	2.25E+02	4.23E+01	8.50E+01	2.04E+00	1.45E+01	5.40E+01	0.00E+00	1.21E+01	0.00E+00	0.00E+00	6.49E+00	1.88E-01
WMA-B-BX-BY	241-BY-107	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-B-BX-BY	241-BY-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-101	3.44E-02	9.90E+00	5.05E-01	6.23E-02	2.48E-01	3.70E-05	0.00E+00	1.90E-04	1.38E-06	1.43E-02	6.36E-02	3.48E-05	4.74E-04	0.00E+00	8.94E-02	7.30E-02	6.64E+00	7.48E+00	1.17E+00	6.16E-03	2.48E+00	1.74E-01	5.50E-04	3.03E-01	0.00E+00	1.89E-01	0.00E+00	0.00E+00	8.41E-02	1.61E-02
WMA-C	241-C-104	1.80E-02	6.99E+02	2.92E+02	1.33E+00	2.05E+00	3.50E-02	0.00E+00	2.20E-04	3.68E-03	1.90E+00	1.15E+00	9.09E-04	0.00E+00	0.00E+00	1.92E+00	8.81E-01	5.60E+02	4.65E+02	7.28E+00	4.76E+00	1.39E+01	3.76E+00	9.77E-01	3.95E+00	0.00E+00	7.10E-04	0.00E+00	0.00E+00	2.39E-01	3.91E-01
WMA-C	241-C-105	6.06E-02	8.55E+02	5.12E+01	5.00E+00	1.98E+01	1.64E-02	0.00E+00	1.48E-02	9.12E-05	2.05E+00	5.11E+00	2.93E-03	3.66E-01	0.00E+00	7.19E+00	8.67E+00	6.05E+02	6.18E+02	2.89E+02	5.98E+00	2.15E+02	1.35E+01	6.10E-01	2.48E+01	0.00E+00	1.66E+01	0.00E+00	0.00E+00	7.86E+00	1.27E+00
WMA-C	241-C-108	1.42E-02	7.46E+02	5.43E+01	3.86E+01	5.73E+00	4.39E-02	0.00E+00	4.66E-03	5.63E-03	6.53E+00	3.38E+00	1.68E-04	0.00E+00	0.00E+00	2.85E+00	4.98E+01	7.30E+02	2.11E+02	6.42E+00	4.91E+00	9.35E+01	7.09E-01	1.50E+00	2.51E+01	0.00E+00	9.35E-04	0.00E+00	0.00E+00	9.53E-01	4.47E-01
WMA-C	241-C-110	1.51E-03	2.25E+02	0.00E+00	2.55E-01	4.21E-01	9.75E-02	0.00E+00	7.83E-04	6.08E-03	0.00E+00	2.32E-01	5.08E-04	0.00E+00	0.00E+00	3.65E-01	1.51E+00	4.48E+02	1.80E+01	2.73E+01	1.63E+01	2.88E+01	6.70E-02	8.50E-01	8.31E+00	0.00E+00	1.67E-03	0.00E+00	0.00E+00	4.50E-01	6.08E-02
WMA-C	241-C-111	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-112	6.48E-03	7.62E+00	0.00E+00	4.03E-01	5.95E-02	0.00E+00	0.00E+00	4.85E-05	0.00E+00	6.79E-02	3.51E-02	0.00E+00	0.00E+00	0.00E+00	2.94E-02	5.19E-01	7.40E+00	2.00E+00	4.40E-02	0.00E+00	9.69E-01	0.00E+00	0.00E+00	2.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.18E-03	4.59E-03
WMA-C	241-C-201	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-202	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-C	241-C-204	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-S-104	3.38E-02	1.46E+03	5.88E+02	3.63E+00	5.52E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.17E+00	3.12E+00	2.32E-03	0.00E+00	0.00E+00	5.21E+00	4.77E+00	1.90E+03	4.59E+02	7.80E+00	0.00E+00	2.04E+01	0.00E+00	0.00E+00	1.99E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-02	1.07E+00
WMA-S-SX	241-SX-104	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-SX-107	2.25E-02	2.33E+03	4.57E+02	1.92E+00	5.29E+01	0.00E+00	0.00E+00	5.95E-03	0.00E+00	2.33E-02	1.96E+00	1.48E-03	4.01E-01	0.00E+00	2.76E+00	1.71E+01	2.11E+03	9.51E+02	4.13E+00	0.00E+00	4.46E+01	5.43E+00	0.00E+00	6.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.28E+00	5.71E-01
WMA-S-SX	241-SX-108	3.81E-02	6.31E+03	1.15E+03	5.17E+00	1.42E+02	0.00E+00	0.00E+00	1.60E-02	0.00E+00	0.00E+00	5.28E+00	7.74E-03	1.42E+00	0.00E+00	7.42E+00	5.04E+01	6.62E+03	1.97E+03	1.11E+01	0.00E+00	9.89E+01	1.46E+01	0.00E+00	1.67E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E+01	1.39E+00
WMA-S-SX	241-SX-109	2.75E-03	2.65E+02	5.10E+01	2.19E-01	6.01E+00	0.00E+00	0.00E+00	6.77E-04	0.00E+00	0.00E+00	2.23E-01	1.67E-04	5.03E-02	0.00E+00	3.14E-01	2.00E+00	2.52E+02	1.01E+02	4.70E-01	0.00E+00	4.82E+00	6.18E-01	0.00E+00	7.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.43E-01	6.44E-02
WMA-S-SX	241-SX-110	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-S-SX	241-SX-111	2.46E-03	3.29E+02	3.58E+01	3.70E-01	5.63E+00	3.67E-03	6.53E-10	1.11E-03	5.02E-04	3.47E-01	3.70E-01	1.57E-04	6.08E-02	0.00E+00	5.14E-01	2.81E+00	2.66E+02	1.37E+02	3.78E+01	2.10E+00	3.09E+01	1.01E+00	1.27E-01	8.63E+00	0.00E+00	7.00E-02	0.00E+00	0.00E+00	1.44E+00	8.77E-02
WMA-S-SX	241-SX-112	3.46E-02	9.02E+03	1.65E+03	3.65E+00	1.00E+02	2.14E-03	0.00E+00	1.13E-02	2.89E-04	8.35E-01	3.73E+00	1.87E-03	1.06E+00	0.00E+00	5.24E+00	6.97E+01	7.57E+03	3.64E+03	5.11E+01	1.81E+00	1.86E+02	1.03E+01	1.39E-01	2.47E+02	0.00E+00	2.37E+00	0.00E+00	0.00E+00	2.59E+01	1.12E+00
WMA-S-SX	241-SX-113	1.72E-02	2.28E+03	4.07E+02	1.86E+00	5.12E+01	0.00E+00	0.00E+00	5.77E-03	0.00E+00	0.00E+00	1.90E+00	1.42E-03	5.43E-01	0.00E+00	2.67E+00	1.86E+01	2.48E+03	6.30E+02	4.00E+00	0.00E+00	3.30E+01	5.27E+00	0.00E+00	6.03E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E+00	5.31E-01
WMA-S-SX	241-SX-114	1.83E-03	2.27E+02	4.60E+01	1.88E-01	5.16E+00	2.76E-06	0.00E+00	5.82E-04	3.74E-07	1.08E-03	1.92E-01	1.44E-04	3.09E-02	0.00E+00	2.70E-01	1.58E+00	1.85E+02	1.02E+02	4.09E-01	2.34E-03	4.71E+00	5.31E-01	1.80E-04	5.97E+00	0.00E+00	3.07E-03	0.00E+00	0.00E+00	9.41E-01	5.67E-02
WMA-S-SX	241-SX-115	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-T	241-T-101	1.49E-01	1.24E+04	4.75E+03	1.66E+01	6.58E+01	1.29E-03	0.00E+00	6.85E-03	1.75E-04	2.34E+01	1.44E+01	1.10E-02	6.44E-01	0.00E+00	2.38E+01	4.58E+01	9.83E+03	8.32E+03	4.69E+01	1.10E+00	1.67E+02	3.59E+01	8.44E-02	1.67E+02	0.00E+00	1.44E+00	0.00E+00	0.00E+00	1.57E+01	4.74E+00
WMA-T	241-T-102	3.29E-04	3.41E+01	3.20E+00	3.49E-01	2.41E-01	1.49E-04	0.00E+00	1.27E-04	1.98E-05	1.52E-02	2.16E-01	6.93E-06	2.57E-03	0.00E+00	1.54E-01	2.48E-01	2.12E+01	6.41E+00	6.14E+00	3.59E-01	2.01E+00	5.24E-02	5.15E-03	9.76E-01	0.00E+00	1.32E-03	0.00E+00	0.00E+00	6.16E-02	1.11E-02

OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
WMA-T	241-T-103	7.47E-04	9.80E+01	1.09E+01	2.48E-01	1.64E+00	1.05E-03	3.39E-11	3.29E-04	1.39E-04	1.01E-01	1.75E-01	4.57E-05	1.76E-02	0.00E+00	1.78E-01	8.31E-01	7.86E+01	4.00E+01	1.16E+01	6.46E-01	9.00E+00	2.93E-01	3.61E-02	2.58E+00	0.00E+00	5.27E-03	0.00E+00	0.00E+00	4.18E-01	2.64E-02
WMA-T	241-T-106	1.33E-01	1.74E+04	1.91E+03	4.62E+01	2.90E+02	2.39E-01	3.32E-09	5.87E-02	5.82E-02	1.79E+01	3.23E+01	8.12E-03	3.13E+00	0.00E+00	3.27E+01	1.48E+02	1.39E+04	7.07E+03	2.07E+03	1.16E+02	1.60E+03	5.21E+01	1.14E+01	4.58E+02	0.00E+00	1.68E+00	0.00E+00	0.00E+00	7.66E+01	4.70E+00
WMA-T	241-T-108	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-T	241-T-109	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-T	241-T-111	3.16E-03	1.73E+02	0.00E+00	4.06E-01	1.55E+00	3.72E-01	7.57E-13	0.00E+00	0.00E+00	0.00E+00	3.77E-01	1.03E-03	1.61E-10	0.00E+00	5.82E-01	1.07E+00	3.09E+02	1.98E-02	8.71E-01	2.60E+01	1.91E+01	1.15E+00	1.68E+01	4.44E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-08	3.02E-02
WMA-TX-TY	241-TX-104	1.79E-02	3.50E+02	0.00E+00	1.04E+00	1.82E+00	5.23E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.22E-01	2.14E-03	0.00E+00	0.00E+00	1.20E+00	2.42E-01	9.20E+01	6.11E+00	2.99E+02	5.35E+01	9.50E+01	9.83E-01	0.00E+00	1.01E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.74E-03	7.06E+00
WMA-TX-TY	241-TX-105	1.36E-01	6.42E+03	0.00E+00	1.92E+01	3.35E+01	9.61E+00	0.00E+00	1.21E-02	0.00E+00	0.00E+00	1.51E+01	3.94E-02	0.00E+00	0.00E+00	2.20E+01	4.44E+00	1.69E+03	1.15E+02	5.55E+03	9.93E+02	1.74E+03	1.80E+01	0.00E+00	1.85E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-01	1.32E+02
WMA-TX-TY	241-TX-107	1.22E-03	3.51E+02	5.44E+01	1.49E-01	4.10E+00	8.90E-02	2.15E-11	4.62E-04	2.22E-02	2.12E-01	1.53E-01	7.94E-07	4.22E-02	0.00E+00	2.14E-01	3.72E+00	3.09E+02	1.19E+02	3.36E+01	8.58E+00	1.70E+01	4.22E-01	3.61E+00	1.20E+01	0.00E+00	1.01E+00	0.00E+00	0.00E+00	2.92E+00	4.37E-02
WMA-TX-TY	241-TX-114	6.62E-03	1.90E+03	2.95E+02	8.08E-01	2.22E+01	4.82E-01	1.16E-10	2.50E-03	1.20E-01	1.15E+00	8.26E-01	0.00E+00	2.29E-01	0.00E+00	1.16E+00	2.02E+01	1.67E+03	6.45E+02	1.82E+02	4.65E+01	9.19E+01	2.28E+00	1.96E+01	6.52E+01	0.00E+00	5.46E+00	0.00E+00	0.00E+00	1.58E+01	2.37E-01
WMA-TX-TY	241-TX-118	1.66E-03	4.75E+02	7.36E+01	2.02E-01	5.56E+00	1.20E-01	2.91E-11	6.26E-04	3.00E-02	2.88E-01	2.07E-01	0.00E+00	5.71E-02	0.00E+00	2.90E-01	5.04E+00	4.19E+02	1.61E+02	4.55E+01	1.16E+01	2.30E+01	5.71E-01	4.89E+00	1.63E+01	0.00E+00	1.37E+00	0.00E+00	0.00E+00	3.96E+00	5.92E-02
WMA-TX-TY	241-TY-101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WMA-TX-TY	241-TY-103	3.41E-03	9.79E+02	1.52E+02	4.16E-01	1.14E+01	2.48E-01	5.99E-11	1.29E-03	6.18E-02	5.93E-01	4.25E-01	9.66E-08	1.18E-01	0.00E+00	5.97E-01	1.04E+01	8.62E+02	3.32E+02	9.36E+01	2.39E+01	4.73E+01	1.18E+00	1.01E+01	3.36E+01	0.00E+00	2.81E+00	0.00E+00	0.00E+00	8.15E+00	1.22E-01
WMA-TX-TY	241-TY-104	1.33E-03	3.81E+02	5.89E+01	1.62E-01	4.45E+00	9.65E-02	2.33E-11	5.01E-04	2.40E-02	2.30E-01	1.65E-01	0.00E+00	4.57E-02	0.00E+00	2.32E-01	4.04E+00	3.35E+02	1.29E+02	3.64E+01	9.30E+00	1.84E+01	4.57E-01	3.91E+00	1.31E+01	0.00E+00	1.09E+00	0.00E+00	0.00E+00	3.17E+00	4.74E-02
WMA-TX-TY	241-TY-105	1.40E-02	8.60E+03	0.00E+00	9.70E+00	1.56E+01	3.54E+00	0.00E+00	3.00E-02	0.00E+00	0.00E+00	8.83E+00	1.23E-02	0.00E+00	0.00E+00	1.39E+01	5.79E+01	1.71E+04	6.91E+02	1.05E+03	6.21E+02	1.10E+03	0.00E+00	0.00E+00	3.18E+02	0.00E+00	6.42E-02	0.00E+00	0.00E+00	6.42E-01	1.91E+00
WMA-TX-TY	241-TY-106	1.61E-02	2.42E+03	0.00E+00	2.73E+00	4.41E+00	9.96E-01	0.00E+00	8.45E-03	0.00E+00	0.00E+00	2.49E+00	5.43E-03	0.00E+00	0.00E+00	3.92E+00	1.63E+01	4.83E+03	1.95E+02	2.94E+02	1.75E+02	3.10E+02	0.00E+00	0.00E+00	8.96E+01	0.00E+00	1.81E-02	0.00E+00	0.00E+00	1.81E-01	6.53E-01
WMA-U	241-U-101	2.92E-02	3.93E+03	7.02E+02	3.21E+00	8.83E+01	0.00E+00	0.00E+00	9.94E-03	0.00E+00	0.00E+00	3.28E+00	2.45E-03	9.35E-01	0.00E+00	4.61E+00	3.21E+01	4.28E+03	1.09E+03	6.90E+00	0.00E+00	5.68E+01	9.07E+00	0.00E+00	1.04E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.99E+00	9.16E-01
WMA-U	241-U-104	7.58E-02	1.74E+03	0.00E+00	5.21E+00	9.10E+00	2.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E+00	1.07E-02	0.00E+00	0.00E+00	5.98E+00	1.20E+00	4.59E+02	3.04E+01	1.49E+03	2.67E+02	4.74E+02	4.90E+00	0.00E+00	5.02E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-02	3.52E+01
WMA-U	241-U-110	1.52E-02	7.05E+02	1.26E+02	3.51E-01	8.06E+00	1.74E-01	4.19E-11	9.07E-04	4.33E-02	4.99E-01	3.44E-01	1.68E-04	8.28E-02	0.00E+00	5.04E-01	7.28E+00	6.14E+02	2.63E+02	6.56E+01	1.68E+01	3.32E+01	9.92E-01	7.06E+00	2.36E+01	0.00E+00	1.97E+00	0.00E+00	0.00E+00	5.71E+00	1.00E-01
WMA-U	241-U-112	8.96E-02	1.20E+04	2.15E+03	9.93E+00	2.69E+02	1.66E+00	0.00E+00	3.03E-02	2.98E-01	7.54E-01	1.01E+01	8.87E-03	2.85E+00	0.00E+00	1.42E+01	9.78E+01	1.31E+04	3.32E+03	1.23E+02	7.88E+01	1.94E+02	2.79E+01	4.16E+01	3.17E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E+01	3.95E+00
200-PW-1	241-Z-361	4.68E+00	2.90E+03	2.50E+02	7.01E+00	1.39E+00	0.00E+00	0.00E+00	5.51E-01	0.00E+00	1.49E+00	6.42E-01	2.54E-04	1.09E+02	1.89E+01	9.91E+00	2.80E+04	3.49E+04	2.72E+02	2.64E+02	6.73E+00	2.54E+00	1.19E+00	6.79E+03	1.31E+03	1.06E+02	6.87E+01	1.11E+01	0.00E+00	1.38E+00	2.38E-03
200-PW-6	241-Z-8	3.32E-04	1.45E+01	4.03E+00	1.19E-02	2.23E-02	0.00E+00	0.00E+00	9.17E-03	0.00E+00	2.48E-02	1.01E-02	0.00E+00	1.16E-02	3.63E-01	1.72E-01	8.28E-03	6.48E+01	9.08E-02	7.34E-01	4.28E-03	4.25E-02	2.30E-02	8.75E-01	7.59E-02	1.68E-02	3.06E-03	0.00E+00	1.06E-02	0.00E+00	2.25E-06
WMA-S-SX	216-S-15	3.73E-04	7.69E-03	0.00E+00	1.55E-04	1.78E-03	0.00E+00	0.00E+00	7.12E-05	0.00E+00	1.87E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.84E-02	2.63E-03	1.83E-03	0.00E+00	0.00E+00	0.00E+00	5.02E-02	7.69E-03	8.90E-04	1.34E-02	0.00E+00	0.00E+00	0.00E+00	4.99E-02	0.00E+00	2.23E-07
200-CB-1	UPR-200-E-1	2.04E-02	1.20E+03	0.00E+00	2.46E+00	8.44E+00	2.42E+00	0.00E+00	0.00E+00	5.62E-01	0.00E+00	2.09E+00	5.93E-03	0.00E+00	0.00E+00	3.14E+00	8.25E+00	2.26E+03	6.43E+01	4.71E+00	1.41E+02	1.48E+02	6.19E+00	7.85E+01	3.44E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E+01	6.30E-01
WMA-B-BX-BY	UPR-200-E-105	3.55E-03	1.30E+03	0.00E+00	3.69E+00	1.27E+01	4.43E+00	0.00E+00	7.49E-03	6.20E-01	0.00E+00	2.30E+00	6.02E-03	0.00E+00	0.00E+00	3.47E+00	9.10E+00	2.48E+03	5.35E+01	5.20E+00	1.55E+02	1.64E+02	6.83E+00	8.66E+01	3.79E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E+01	1.03E+00
WMA-C	UPR-200-E-107	7.73E-07	1.03E+00	0.00E+00	1.16E-03	1.88E-03	4.24E-04	0.00E+00	3.60E-06	0.00E+00	0.00E+00	1.06E-03	1.43E-06	0.00E+00	0.00E+00	1.67E-03	6.95E-03	2.06E+00	8.29E-02	1.25E-01	7.45E-02	1.32E-01	0.00E+00	0.00E+00	3.82E-02	0.00E+00	7.70E-06	0.00E+00	0.00E+00	7.70E-05	2.26E-04
WMA-B-BX-BY	UPR-200-E-108	4.29E-04	2.00E+01	0.00E+00	5.76E-02	1.02E-01	3.03E-02	0.00E+00	1.48E-04	0.00E+00	0.00E+00	4.76E-02	1.28E-04	0.00E+00	0.00E+00	6.84E-02	1.40E-02	5.16E+00	4.81E-01	1.92E+01	3.45E+00	5.36E+00	5.54E-02	0.00E+00	5.68E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03	5.10E-01
WMA-B-BX-BY	UPR-200-E-109	2.32E-05	3.10E+01	0.00E+00	3.49E-02	5.63E-02	1.27E-02	0.00E+00	1.08E-04	0.00E+00	0.00E+00	3.18E-02	4.28E-05	0.00E+00	0.00E+00	5.01E-02	2.09E-01	6.17E+01	2.49E+00	3.76E+00	2.24E+00	3.97E+00	0.00E+00	0.00E+00	1.15E+00	0.00E+00	2.31E-04	0.00E+00	0.00E+00	2.31E-03	6.79E-03
WMA-B-BX-BY	UPR-200-E-110	1.11E-02	7.07E+02	0.00E+00	1.49E+00	5.13E+00	1.54E+00	0.00E+00	4.07E-03	3.37E-01	0.00E+00	1.25E+00	3.40E-03	0.00E+00	0.00E+00	1.89E+00	4.94E+00	1.35E+03	2.91E+01	2.82E+00	8.42E+01	8.90E+01	3.71E+00	4.70E+01	2.06E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E+01	4.31E-01
200-EA-1	UPR-200-E-117	3.30E-04	1.20E+01	2.29E-01	4.05E-02	3.45E-01	1.65E-04	0.00E+00	1.26E-04	1.44E-06	1.81E-02	4.14E-02	0.00E+00	3.79E-03	0.00E+00	5.82E-02	1.16E-01	7.22E+00	8.52E+00	3.28E+00	8.24E-01	2.77E+00	1.15E-01	4.81E-03	2.62E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-01	1.09E-02
WMA-A-AX	UPR-200-E-117	3.30E-04	1.20E+01	2.29E-01	4.05E-02	3.45E-01	1.65E-04	0.00E+00	1.26E-04	1.44E-06	1.81E-02	4.14E-02	0.00E+00	3.79E-03	0.00E+00	5.82E-02	1.16E-01	7.22E+00	8.52E+00	3.28E+00	8.24E-01	2.77E+00	1.15E-01	4.81E-03	2.62E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-01	1.09E-02
WMA-A-AX	UPR-200-E-119	1.02E-07	3.71E-03	7.06E-05	1.25E-05	1.06E-04	5.10E-08	0.00E+00	3.87E-08	4.46E-10	5.58E-06	1.28E-05	0.00E+00	1.17E-06	0.00E+00	1.79E-05	3.59E-05	2.23E-03	2.63E-03	1.01E-03	2.54E-04	8.53E-04	3.53E-05	1.48E-06	8.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-05	3.35E-06
200-IS-1	UPR-200-E-145	2.55E-04	2.23E-02	0.00E+00	1.15E-04	1.07E-04	0.00E+00	0.00E+00	3.66E-06	0.00E+00	0.00E+00	5.47E-05	0.00E+00	8.96E-06	0.00E+00	1.96E-02	1.21E+01	1.51E+01	0.00E+00	0.00E+00	2.65E-01	0.00E+00	0.00E+00	2.46E-02	0.00E+00	0.00E+00	4.98E-06	0.00E+00	0.00E+00	4.98E-06	1.24E+00
WMA-C	UPR-200-E-16	7.73E-06	1.20E+00	5.04E-01	2.30E-03	3.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.27E-03	1.99E-03	5.44E-06	0.00E+00	0.00E+00	3.30E-03	1.30E-03	9.38E-01	8.02E-01	4.93E-03	0.00E+00	1.87E-02	6.49E-03	0.00E+00	5.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-05	6.49E-04
200-IS-1	UPR-200-E-3	1.91E-04	1.21E+01	0.00E+00	2.56E-02	8.79E-02	2.64E-02	0.00E+00	6.98E-05	5.78E-03	0.00E+00	2.14E-02	5.83E-05	0.00E+00	0.00E+00	3.23E-02	8.47E-02	2.31E+01	4.99E-01	4.84E-02	1.44E+00	1.53E+00	6.37E-02	8.06E-01	3.53E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.10E-01	7.39E-03
WMA-B-BX-BY	UPR-200-E-38	8.34E-04	8.62E+02	9.32E+01	9.40E-01	1.48E+01	9.55E-03	0.00E+00	2.91E-03	1.27E-03	9.13E-01	9.60E-01	4.12E-04	1.60E-01	0.00E+00	1.35E+00	7.39E+00	6.99E+02	3.59E+02	9.94E+01	5.51E+00	8.14E+01	2.65E+00	3.29E-01	2.26E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.78E+00	1.70E-01
200-CP-1	UPR-200-E-39	8.76E-04	1.27E+00	0.00E+00	9.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.32E-05	0.00E+00	0.00E+00	3.31E-01	7.18E-03	3.77E+00	0.00E+00	2.63E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.81E-01	1.33E-01
200-EA-1	UPR-200-E-40	6.74E-05	9.73E-02	0.00E+00	7.39E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.09E-06	0.00E+00	0.00E+00	2.54E-02	5.53E-04	2.90E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-02	1.02E-02
WMA-B-BX-BY	UPR-200-E-6	2.22E-03	1.41E+02	0.00E+00	2.99E-01	1.03E+00	3.08E-01	0.00E+00	8.14E-04	6.74E-02	0.00E+00	2.50E-01	6.80E-04	0.00E+00	0.00E+00	3.77E-01	9.89E-01	2.69E+02	5.82E+00	5.65E-01	1.68E+01	1.78E+01	7.43E-01	9.41E+00	4.12E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.62E+00	8.62E-02
200-IS-1	UPR-200-E-7	7.73E-04	7.32E+00	0.00E+00	1.87E-02	6.75E-02	1.72E-02	1.25E-05	0.00E+00	0.00E+00	0.00E+00	1.72E-02	4.77E-05	2.74E-03	0.00E+00	2.69E-02	8.40E-01	1.48E+01	4.61E-04	4.03E-02	8.76E-01	4.67E-01	2.64E-02	8.49E-01	1.94E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.23E-10	1.68E-03
WMA-B-BX-BY	UPR-200-E-73	2.33E-04	1.06E+01	0.00E+00	2.83E-02	5.02E-02	1.61E-02	0.00E+00	7.82E-05	0.00E+00	0.00E+00	2.52E-02	6.65E-05	0.00E+00	0.00E+00	3.62E-02	7.42E-03	2.74E+00	2.55E-01	9.68E+00	1.74E+00	2.85E+00	2.97E-02	0.00E+00	3.04E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.54E-04	2.52E-01
WMA-B-BX-BY	UPR-200-E-74	2.22E-05	1.13E-01	0.00E+00	2.62E-03	1.04E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	0.00E+00	9.03E-03	6.77E-04	2.44E-01	2.77E-02	2.96E-03	0.00E+00	9.64E-03	0.00E+00	0.00E+00	2.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-06
WMA-B-BX-BY	UPR-200-E-75	1.57E-03	1.00E+02	0.00E+00	2.11E-01	7.25E-01	2.18E-01	0.00E+00	5.75E-04	4.77E-02	0.00E+00	1.77E-01	4.81E-04	0.00E+00	0.00E+00	2.67E-01	6.99E-01	1.90E+02	4.11E+00	4.00E-01	1.19E+01	1.26E+01	5.25E-01	6.65E+00	2.91E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E+00	6.10E-02
200-IS-1	UPR-200-E-77	3.30E-05	1.49E+00	0.00E+00	4.00E-03	6.98E-03	2.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.51E-03	9.13E-06	0.00E+00	0.00E+00	5.12E-03	1.03E-03	3.93E-01	2.61E-02	1.28E+00	2.29E-01	4.06E-01	4.20E-03	0.00E+00	4.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-05	3.13E-02
200-IS-1	UPR-200-E-78	8.89E-05	4.62E+00	0.00E+00	2.44E-01	3.61E-02	0.00E+00	0.00E+00	2.94E-05	0.00E+00	4.12E-02	2.13E-02	0.00E+00	0.00E+00	0.00E+00	1.78E-02	3.15E-01	4.49E+00	1.22E+00	2.67E-02	0.00E+00	5.88E-01	0.00E+00	0.00E+00	1.58E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-03	2.79E-03
200-IS-1	UPR-200-E-79	2.22E-03	2.65E+02	1.33E+00	2.46E-01	1.10E+00	2.25E-01	0.00E+00	7.61E-04	5.83E-02	0.00E+00	2.51E-01	0.00E+00	0.00E+00	0.00E+00	3.53E-01	2.06E+00	5.10E+02	2.00E+01	2.14E+01	1.57E+01	2.80E+01	6.95E-01	8.42E+00	1.01E+01	0.00E+00	1.42E-03	0.00E+00	0.00E+00	3.71E+00	8.67E-02
200-CB-1	UPR-200-E-80	2.20E-03	1.03E+00	0.00E+00	2.99E-03	5.22E-03	1.55E-03	5.65E-10	1.46E-09	9.08E-08	0.00E+00	2.43E-03	6.32E-06	1.24E-07	0.00E+00	3.55E-03	7.15E-04	2.72E-01	1.81E-02	8.84E-01	1.58E-01	2.81E-01	2.91E-03	5.05E-05	2.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-05	2.11E-02
WMA-C	UPR-200-E-81	5.56E-03	1.88E+03	8.54E+02	5.27E+00	8.02E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.51E+00	4.53E+00	3.80E-03	0.00E+00	0.00E+00	7.57E+00	4.95E+00	2.15E+03	6.58E+02	1.13E+01	0.00E+00	3.26E+01	0.00E+00	0.00E+00	2.06E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-02	8.42E-01
WMA-C	UPR-200-E-82	7.33E-04	1.64E+02	1.61E+01	3.15E-01	2.78E+00	1.65E-03	0.00E+00	9.77E-04	2.19E-04	4.16E-01	3.22E-01	2.14E-04	2.76E-02	0.00E+00	4.53E-01	1.40E+00	1.22E+02	9.58E+01	1.72E+01	9.52E-01	3.38E+01	8.91E-01	5.68E-02	4.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E+00	5.69E-02
200-IS-1	UPR-200-E-84	2.63E-04	1.78E-02	0.00E+00	1.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E+00	0.00E+00	0.00E+00	0.00E+00	9.85E-03	0.00E+00	0.00E+00	1.76E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.75E-05
200-CB-1	UPR-200-E-85	2.36E-03	2.68E+02	2.89E+01	2.92E-01	4.59E+00	2.96E-03	0.00E+00	9.03E-04	3.93E-04	2.83E-01	2.98E-01	1.28E-04	4.96E-02	0.00E+00	4.18E-01	2.29E+00	2.17E+02	1.11E+02	3.08E+01	1.71E+00	2.53E+01	8.24E-01	1.02E-01	7.02E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E+00	7.77E-02
200-IS-1	UPR-200-E-86	1.28E-02	7.96E+02	1.47E+01	2.71E+00	2.24E+01	1.07E-02	0.00E+00	8.38E-03	9.31E-05	1.55E+00	2.77E+00	4.66E-04	2.44E-01	0.00E+00	3.88E+00	7.65E+00	4.68E+02	5.81E+02	2.11E+02	5.31E+01	1.96E+02	7.65E+00	3.10E-01	1.81E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.31E+00	5.75E-01
200-CB-1	UPR-200-E-87	2.73E-02	1.72E+03	0.00E+00	4.39E+02	1.17E+01	6.47E+02	2.90E+02	0.00E+00	0.00E+00	0.00E+00	3.43E+00	7.72E-03	1.37E+02	0.00E+00	3.19E+02	2.83E+02	2.54E+03	1.65E-03	4.77E+02	3.35E+02	1.06E+01	0.00E+00	1.54E+02	3.09E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E-11	5.93E-04
200-EA-1	UPR-200-E-9	1.70E-03	2.27E+03	0.00E+00	2.56E+00	4.13E+00	9.34E-01	0.00E+00	7.93E-03	0.00E+00	0.00E+00	2.33E+00	3.14E-03	0.00E+00	0.00E+00	3.67E+00	1.53E+01	4.53E+03	1.82E+02	2.76E+02	1.64E+02	2.91E+02	0.00E+00	0.00E+00	8.40E+01	0.00E+00	1.69E-02	0.00E+00	0.00E+00	1.69E-01	4.98E-01
WMA-TX-TY	UPR-200-W-100	5.56E-03	3.54E+02	0.00E+00	7.47E-01	2.56E+00	7.71E-01	0.00E+00	2.03E-03	1.69E-01	0.00E+00	6.25E-01	1.70E-03	0.00E+00	0.00E+00	9.43E-01	2.47E+00	6.73E+02	1.45E+01	1.41E+00	4.21E+01	4.45E+01	1.86E+00	2.35E+01	1.03E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.05E+00	2.16E-01
200-WA-1	UPR-200-W-101	2.60E-03	6.05E-02	0.00E+00	3.11E-04	2.92E-04	0.00E+00	0.00E+00	9.94E-06	0.00E+00	0.00E+00	1.49E-04	0.00E+00	2.43E-05	0.00E+00	5.32E-02	3.30E+01	4.11E+01	0.00E+00	0.00E+00	7.19E-01	0.00E+00	0.00E+00	6.67E-02	0.00E+00	0.00E+00	1.35E-05	0.00E+00	0.00E+00	1.35E-05	2.26E+00
200-IS-1	UPR-200-W-102	2.73E-02	1.62E+03	0.00E+00	3.87E+02	1.17E+01	5.70E+02	2.55E+02	0.00E+00	0.00E+00	0.00E+00	3.43E+00	7.72E-03	1.21E+02	0.00E+00	2.81E+02	2.82E+02	2.54E+03	2.37E-03	4.21E+02	3.02E+02	1.05E+01	0.00E+00	1.54E+02	3.08E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.28E-11	6.84E-04
200-WA-1	UPR-200-W-103	2.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.34E+02	0.00E+00	1.40E+01	0.00E+00	0.00E+00	3.22E-07
WMA-TX-TY	UPR-200-W-12	1.09E-05	1.30E+00	6.53E-03	1.21E-03	5.43E-03	1.11E-03	0.00E+00	3.74E-06	2.87E-04	0.00E+00	1.23E-03	0.00E+00	0.00E+00	0.00E+00	1.73E-03	1.01E-02	2.51E+00	9.81E-02	1.05E-01	7.74E-02	1.37E-01	3.41E-03	4.14E-02	4.98E-02	0.00E+00	6.99E-06	0.00E+00	0.00E+00	1.82E-02	4.26E-04
WMA-TX-TY	UPR-200-W-127	3.30E-04	8.19E-04	0.00E+00	1.65E-05	1.89E-04	0.00E+00	0.00E+00	7.58E-06	0.00E+00	1.99E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.28E-03	2.80E-04	1.95E-04	0.00E+00	0.00E+00	0.00E+00	5.34E-03	8.19E-04	9.47E-05	1.42E-03	0.00E+00	0.00E+00	0.00E+00	5.31E-03	0.00E+00	1.02E-07
200-IS-1	UPR-200-W-130	3.30E-04	2.23E-01	0.00E+00	2.28E-04	4.56E-07	0.00E+00	0.00E+00	8.21E-06	0.00E+00	0.00E+00	1.82E-06	0.00E+00	8.67E-03	1.09E-05	9.12E-05	2.23E+00	2.43E+00	1.60E-02	1.14E-02	1.78E-04	0.00E+00	0.00E+00	5.41E-01	1.04E-01	2.74E-05	5.47E-03	0.00E+00	0.00E+00	0.00E+00	1.38E-06
200-IS-1	UPR-200-W-131	8.73E-06	1.23E+00	0.00E+00	1.38E-03	2.23E-03	5.05E-04	0.00E+00	4.29E-06	0.00E+00	0.00E+00	1.26E-03	2.88E-06	0.00E+00	0.00E+00	1.99E-03	8.27E-03	2.45E+00	9.87E-02	1.49E-01	8.87E-02	1.57E-01	0.00E+00	0.00E+00	4.54E-02	0.00E+00	9.16E-06	0.00E+00	0.00E+00	9.16E-05	3.39E-04
WMA-U	UPR-200-W-132	7.73E-05	1.53E+01	0.00E+00	8.03E-02	1.43E-01	2.31E-02	0.00E+00	1.13E-04	0.00E+00	0.00E+00	3.63E-02	1.28E-04	0.00E+00	0.00E+00	5.21E-02	1.07E-02	3.94E+00	3.67E-01	2.31E+01	4.24E+00	3.78E+00	3.22E-02	0.00E+00	3.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-04	6.90E-01
200-IS-1	UPR-200-W-135	1.55E-04	3.05E+01	0.00E+00	1.61E-01	2.86E-01	4.62E-02	0.00E+00	2.25E-04	0.00E+00	0.00E+00	7.27E-02	2.56E-04	0.00E+00	0.00E+00	1.04E-01	2.14E-02	7.88E+00	7.34E-01	4.62E+01	8.48E+00	7.57E+00	6.44E-02	0.00E+00	6.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03	1.38E+00
200-WA-1	UPR-200-W-138	1.41E-02	3.24E-01	0.00E+00	1.66E-03	1.56E-03	0.00E+00	0.00E+00	5.32E-05	0.00E+00	0.00E+00	7.95E-04	0.00E+00	1.30E-04	0.00E+00	2.85E-01	1.76E+02	2.20E+02	0.00E+00	0.00E+00	3.85E+00	0.00E+00	0.00E+00	3.57E-01	0.00E+00	0.00E+00	7.23E-05	0.00E+00	0.00E+00	7.23E-05	1.22E+01
200-WA-1	UPR-200-W-163	3.06E-03	7.50E-02	0.00E+00	1.38E-03	3.57E-04	1.03E-08	4.23E-12	1.23E-05	6.80E-10	0.00E+00	1.82E-04	1.90E-12	2.97E-05	0.00E+00	6.51E-02	4.03E+01	5.02E+01	9.74E-08	1.25E-06	8.79E-01	6.64E-03	2.02E-08	8.16E-02	1.19E-01	0.00E+00	1.65E-05	0.00E+00	0.00E+00	1.65E-05	2.61E+00
200-WA-1	UPR-200-W-19	2.22E-05	5.27E-01	0.00E+00	3.87E-04	6.25E-04	1.41E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-04	0.00E+00	0.00E+00	0.00E+00	5.56E-04	2.31E-03	3.99E-02	2.76E-02	4.18E-02	2.48E-02	1.10E+00	0.00E+00	0.00E+00	1.27E-02	0.00E+00	2.56E-06	7.18E-03	2.39E-02	2.56E-05	1.04E-02
200-IS-1	UPR-200-W-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200-WA-1	UPR-200-W-20	4.45E-04	1.22E-03	0.00E+00	2.46E-05	2.83E-04	0.00E+00	0.00E+00	1.13E-05	0.00E+00	2.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-02	4.18E-04	2.91E-04	0.00E+00	0.00E+00	0.00E+00	7.98E-03	1.22E-03	1.41E-04	2.12E-03	0.00E+00	0.00E+00	0.00E+00	7.92E-03	0.00E+00	1.41E-07
200-IS-1	UPR-200-W-21	6.40E-03	2.99E+02	0.00E+00	8.60E-01	1.53E+00	4.53E-01	0.00E+00	2.20E-03	0.00E+00	0.00E+00	7.12E-01	1.91E-03	0.00E+00	0.00E+00	1.02E+00	2.09E-01	7.71E+01	7.19E+00	2.86E+02	5.15E+01	8.01E+01	8.28E-01	0.00E+00	8.48E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-02	7.62E+00
WMA-U	UPR-200-W-24	1.37E-04	6.21E+00	0.00E+00	1.66E-02	2.89E-02	9.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-02	3.80E-05	0.00E+00	0.00E+00	2.13E-02	4.29E-03	1.63E+00	1.08E-01	5.31E+00	9.50E-01	1.69E+00	1.75E-02	0.00E+00	1.79E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-04	1.30E-01
200-IS-1	UPR-200-W-28	1.33E-03	1.88E+02	0.00E+00	2.12E-01	3.41E-01	7.72E-02	0.00E+00	6.55E-04	0.00E+00	0.00E+00	1.93E-01	4.40E-04	0.00E+00	0.00E+00	3.04E-01	1.26E+00	3.74E+02	1.51E+01	2.28E+01	1.35E+01	2.41E+01	0.00E+00	0.00E+00	6.94E+00	0.00E+00	1.40E-03	0.00E+00	0.00E+00	1.40E-02	5.19E-02
200-IS-1	UPR-200-W-29	1.55E-04	5.66E+01	0.00E+00	1.61E-01	5.53E-01	1.93E-01	0.00E+00	3.26E-04	2.70E-02	0.00E+00	1.00E-01	2.62E-04	0.00E+00	0.00E+00	1.51E-01	3.96E-01	1.08E+02	2.33E+00	2.26E-01	6.73E+00	7.12E+00	2.97E-01	3.76E+00	1.65E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E+00	4.50E-02
200-IS-1	UPR-200-W-32	3.30E-04	7.47E-03	0.00E+00	3.84E-05	3.60E-05	0.00E+00	0.00E+00	1.23E-06	0.00E+00	0.00E+00	1.83E-05	0.00E+00	3.00E-06	0.00E+00	6.57E-03	4.07E+00	5.07E+00	0.00E+00	0.00E+00	8.87E-02	0.00E+00	0.00E+00	8.23E-03	0.00E+00	0.00E+00	1.67E-06	0.00E+00	0.00E+00	1.67E-06	2.92E-01
200-WA-1	UPR-200-W-33	1.33E-06	6.23E-02	0.00E+00	1.79E-04	3.18E-04	9.43E-05	0.00E+00	4.59E-07	0.00E+00	0.00E+00	1.48E-04	3.99E-07	0.00E+00	0.00E+00	2.13E-04	4.36E-05	1.61E-02	1.50E-03	5.96E-02	1.07E-02	1.67E-02	1.72E-04	0.00E+00	1.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-06	1.59E-03
200-IS-1	UPR-200-W-38	4.45E-03	2.08E+02	0.00E+00	5.98E-01	1.06E+00	3.14E-01	0.00E+00	1.53E-03	0.00E+00	0.00E+00	4.94E-01	1.33E-03	0.00E+00	0.00E+00	7.09E-01	1.45E-01	5.36E+01	4.99E+00	1.99E+02	3.58E+01	5.56E+01	5.75E-01	0.00E+00	5.89E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-02	5.29E+00
200-WA-1	UPR-200-W-39	2.22E-04	5.17E-03	0.00E+00	2.66E-05	2.49E-05	0.00E+00	0.00E+00	8.50E-07	0.00E+00	0.00E+00	1.27E-05	0.00E+00	2.08E-06	0.00E+00	4.55E-03	2.82E+00	3.51E+00	0.00E+00	0.00E+00	6.14E-02	0.00E+00	0.00E+00	5.70E-03	0.00E+00	0.00E+00	1.15E-06	0.00E+00	0.00E+00	1.15E-06	1.93E-01

OU Name	WIDS-Site-Name	Volume [ML]	Na [kg]	Al [kg]	Fe [kg]	Cr [kg]	Bi [kg]	La [kg]	Hg [kg]	Zr [kg]	Pb [kg]	Ni [kg]	Ag [kg]	Mn [kg]	Mg [kg]	Ca [kg]	K [kg]	NO3 [kg]	NO2 [kg]	CO3 [kg]	PO4 [kg]	SO4 [kg]	Si [kg]	F [kg]	Cl [kg]	CCl4 [kg]	Butanol [kg]	TBP [kg]	NPH [kg]	NH3 [kg]	U-Total [kg]
200-CR-1	UPR-200-W-61	4.83E-04	6.40E+01	1.14E+01	5.22E-02	1.44E+00	0.00E+00	0.00E+00	1.62E-04	0.00E+00	1.53E-11	5.34E-02	3.70E-05	1.52E-02	0.00E+00	7.50E-02	5.22E-01	6.97E+01	1.77E+01	1.12E-01	0.00E+00	9.24E-01	1.48E-01	0.00E+00	1.69E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.12E-02	1.50E-02
200-WA-1	UPR-200-W-82	8.89E-04	2.44E-03	0.00E+00	4.92E-05	5.66E-04	0.00E+00	0.00E+00	2.26E-05	0.00E+00	5.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-02	8.35E-04	5.82E-04	0.00E+00	0.00E+00	0.00E+00	1.60E-02	2.44E-03	2.83E-04	4.24E-03	0.00E+00	0.00E+00	0.00E+00	1.58E-02	0.00E+00	2.82E-07
200-WA-1	UPR-200-W-95	1.89E-05	2.47E+00	4.41E-01	2.02E-03	5.54E-02	0.00E+00	0.00E+00	6.24E-06	0.00E+00	0.00E+00	2.06E-03	1.17E-06	5.87E-04	0.00E+00	2.89E-03	2.01E-02	2.69E+00	6.81E-01	4.33E-03	0.00E+00	3.57E-02	5.70E-03	0.00E+00	6.53E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.13E-03	5.85E-04
200-CR-1	UPR-200-W-96	6.00E-04	1.27E-03	2.64E-04	1.21E-06	5.71E-05	0.00E+00	0.00E+00	2.65E-09	0.00E+00	4.39E-07	1.13E-06	0.00E+00	1.91E-08	0.00E+00	3.91E-06	7.85E-06	1.08E-03	5.29E-04	5.86E-06	0.00E+00	2.23E-05	6.22E-06	0.00E+00	3.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.57E-06	3.31E-08
200-IS-1	UPR-200-W-97	1.15E-03	6.36E+01	0.00E+00	1.49E-01	5.68E-01	1.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-01	3.80E-04	0.00E+00	0.00E+00	2.14E-01	3.91E-01	1.13E+02	7.26E-03	3.20E-01	9.54E+00	7.02E+00	4.21E-01	6.16E+00	1.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-08	1.11E-02
200-IS-1	UPR-200-W-98	3.30E-04	1.49E+01	0.00E+00	3.98E-02	6.94E-02	2.23E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-02	9.11E-05	0.00E+00	0.00E+00	5.11E-02	1.03E-02	3.92E+00	2.60E-01	1.28E+01	2.28E+00	4.05E+00	4.19E-02	0.00E+00	4.29E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-04	3.13E-01

Appendix D

Uncertainty Calculations from SIM-v2 Estimates With Example Results of Tank Leak Uncertainty

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Figure D-4. Total Uranium Inventories and Uncertainty Ranges Between 5% and 95% Confidence Levels for Tank Leaks with Mean Inventory >10 kg Uranium D-4

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D1 Uncertainty Calculations

These calculations are applied to determination of uncertainty ranges from SIM-v2 output. The calculation was done mainly as part of updating the tank leak that was reported in ECF-HANFORD-17-0079, *Hanford Soil Inventory Model (SIM-v2) Calculated Radionuclide Inventory of Direct Liquid Discharges to Soil in the Hanford Site's 200 Areas*. The tank leak inventory was updated defining uncertainty ranges that cover both reported leak volumes and cesium-137 with 95% confidence. The basis equations of the calculation is provided in this section to assist in calculating uncertainty ranges from reported mean and standard deviation. Mean and standard deviation were reported for radionuclide liquid discharges in the composite analysis data package (Appendices F and G in CP-61786, *Inventory Data Package for the Hanford Site Composite Analysis*). For chemicals, mean and standard deviation are reported in Appendices B and C, respectively, in this report. The suggested lognormal distribution also satisfies the logic that the released inventory should be a positive value according to Equation D-1 of the lognormal distribution function. The corresponding cumulative distribution function in Equation D-2, could be solved numerically to calculate inventory at different percentiles (p). The Microsoft® Excel® function LOGNORM.INV was used to determine the numerical solution, Equation D-3. Applying Equations D-4 and D-5, the lognormal mean μ_l and standard deviation σ_l were evaluated from SIM-v2 estimated inventory arithmetic mean μ and standard deviation σ.

$$f(x|\mu_l,\sigma_l) = \frac{1}{x\sigma_l\sqrt{2\pi}} exp\left\{\frac{-(\ln x-\mu_l)^2}{2\sigma_l{}^2}\right\}; \qquad x > 0 \qquad \textbf{(Eq. D-1)}$$

$$p = F(x|\mu_l,\sigma_l) = \frac{1}{\sigma_l\sqrt{2\pi}}\int_0^x \frac{exp\left\{\frac{-(\ln t-\mu_l)^2}{2\sigma_l{}^2}\right\}}{t}\, dt \qquad \textbf{(Eq. D-2)}$$

$$x = F^{-1}(p|\mu_l,\sigma_l); \qquad 0 < p < 1 \qquad \textbf{(Eq. D-3)}$$

$$\mu_l = ln\left(\frac{\mu^2}{\sqrt{\mu^2+\sigma^2}}\right) \qquad \textbf{(Eq. D-4)}$$

$$\sigma_l = \sqrt{ln\left(\frac{\mu^2+\sigma^2}{\mu^2}\right)} \qquad \textbf{(Eq. D-5)}$$

SIM-v2 reports the arithmetic mean and standard deviation. The natural log in the above calculation corresponds with the geometric mean and it is calculated as function of the arithmetic mean and standard deviation. With the approximated lognormal distribution of the estimated inventory, the probability is function of the lognormal mean and lognormal standard deviation.

D2 Examples of Tank Leak Uncertainty

This chapter presents the uncertainty example of tank leak inventories. SIM-v2 (ECF-HANFORD-17-0079) updated tank leak inventory with uncertainty covering reported ranges of leak volume and cesium-137 with 95% confidence range. SIM-v2 also identified the volumes of waste streams that were discharged to the leaking tank up to the identified leak years and the uncertainty was distributed proportional to the waste stream volumes. SIM-v2 evaluated propagated the identified uncertainty to the inventory of each waste stream composing analytes. To demonstrate the uncertainty results, the uncertainty calculations are demonstrated in Figures D-1 through D-4 for total chromium, nitrate, nitrite and total uranium. For clarity of the figures, only maximum tank leak inventories for each analyte were presented with values above

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100 kg for total chromium, nitrate and nitrite and above 10 kg for uranium. All figures were presented in a log-scale except for the total chromium.

The uncertainty ranges vary among different tank leaks and require consideration in analyzing particular maximum value leaks. For example, tank leak 241-B-105 of mean total chromium of 390 kg has a maximum of 950 kg corresponding to the 95% confidence level. A maximum of more than two times the mean value is demonstrated for this tank requiring attention when analysis are done locally at the tank or tank farm (i.e., in performance analysis at tank farm). For integrated analysis of the cumulative impact evaluation maximum values cannot be added for all sites but uncertainty ranges would be considered for sensitivity analysis.

It should be also noted that the nitrate and nitrite varied among tank leaks and were considerably high at time of the leak affecting the redox for the speciation of chromium and further assessment of hexavalent chromium. Similarly, it would have affected the mobility of uranium at time of the leak.

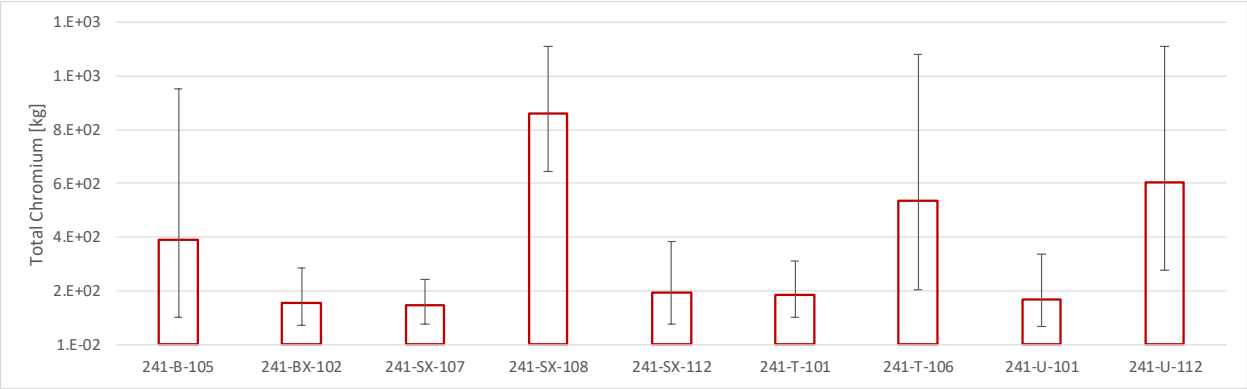

Figure D-1. Total Chromium Inventories and Uncertainty Ranges Between 5% and 95% Confidence Levels for Tank Leaks with Mean Inventory >100 kg Total Chromium

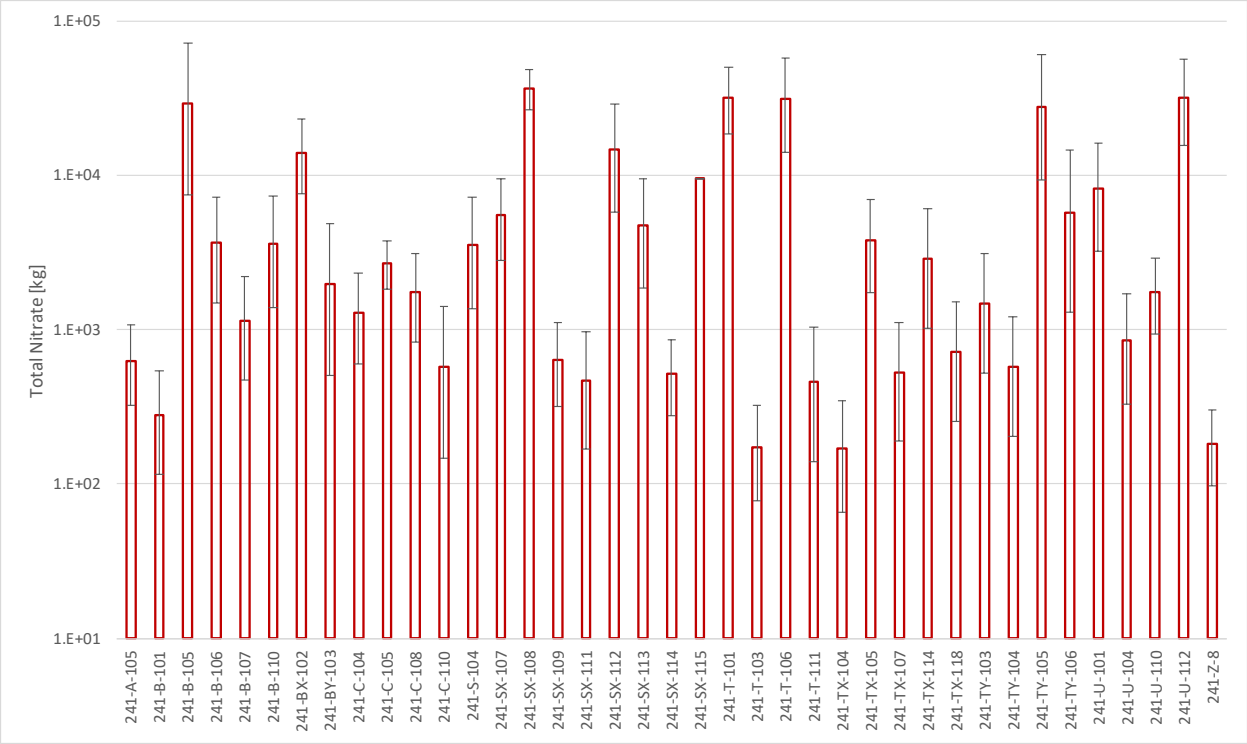

Figure D-2. Nitrate Inventories and Uncertainty Ranges Between 5% and 95% Confidence Levels for Tank Leaks with Mean Inventory >100 kg Nitrate

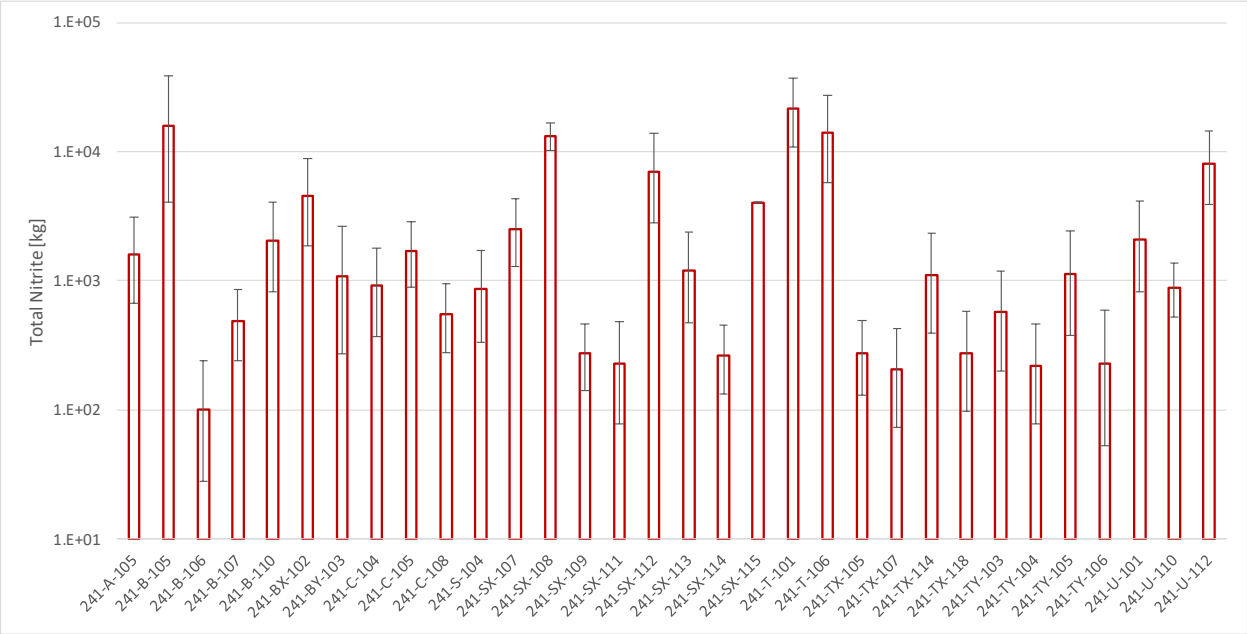

Figure D-3. Nitrite Inventories and Uncertainty Ranges Between 5% and 95% Confidence Levels for Tank Leaks with Mean Inventory >100 kg Nitrite

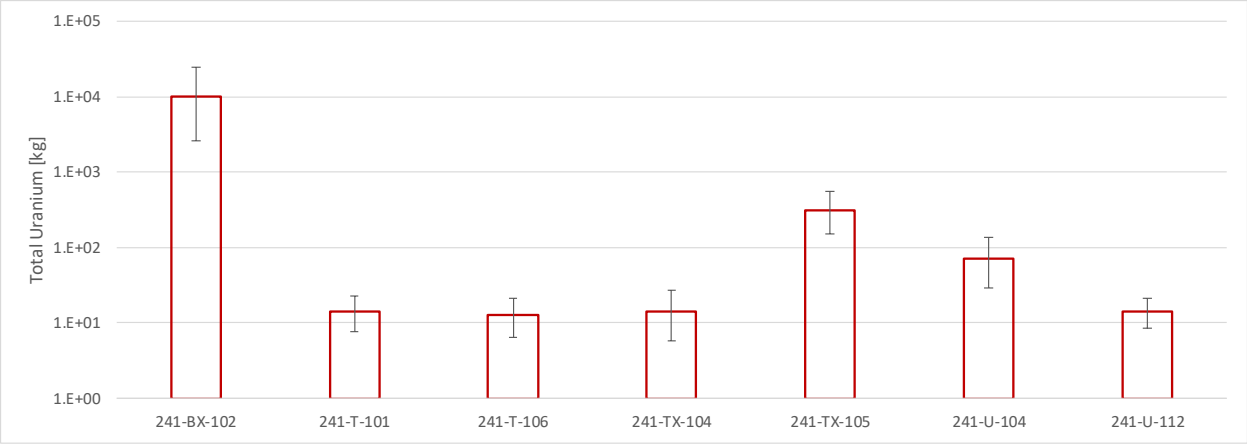

Figure D-4. Total Uranium Inventories and Uncertainty Ranges Between 5% and 95% Confidence Levels for Tank Leaks with Mean Inventory >10 kg Uranium

D3 References

CP-61786, 2019, *Inventory Data Package for the Hanford Site Composite Analysis*, Rev. 0, CH2M HILL, Plateau Remediation Company, Richland, Washington.

ECF-Hanford-17-0079, 2018, *Hanford Soil Inventory Model (SIM-v2) Calculated Radionuclide Inventory of Direct Liquid Discharges to Soil in the Hanford Site's 200 Areas*, Rev. 0, CH2M HILL, Plateau Remediation Company, Richland, Washington.

Appendix E

Software Installation and Checkout Form

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CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM

Software Owner Instructions:
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.

Software Subject Matter Expert Instructions:
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.

GENERAL INFORMATION:

1. Software Name: GoldSim Pro Software Version No.: 11.1.5

EXECUTABLE INFORMATION:

2. Executable Name (include path):

\GoldSim.exe

3. Executable Size (bytes):

COMPILATION INFORMATION:

4. Hardware System (i.e., property number or ID):

Compiled by vendor

5. Operating System (include version number):

Windows

INSTALLATION AND CHECKOUT INFORMATION:

6. Hardware System (i.e., property number or ID):

INTERA 00799

7. Operating System (include version number):

Windows 10 Pro

8. Open Problem Report? ◉ No ○ Yes PR/CR No.

TEST CASE INFORMATION:

9. Directory/Path:

\General Examples

10. Procedure(s):

per CHPRC-00224 Rev 1, GoldSim Pro Software Test Plan

11. Libraries:

N/A

12. Input Files:

FirstModel.gsm

13. Output Files:

FirstModel.gsm

14. Test Cases:

GS-ITC-1

15. Test Case Results:

Match expected results as presented in CHPRC-00224, GoldSim Pro Software Test Plan

16. Test Performed By: U Zaher

17. Test Results: ◉ Satisfactory, Accepted for Use ○ Unsatisfactory

18. Disposition (include HISI update):

Accepted; installation added to Hanford Off-Site user list

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CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)

1. Software Name: GoldSim Pro Software Version No.: 11.1.5

Prepared By: WILLIAM NICHOLS (Affiliate) Digitally signed by WILLIAM NICHOLS (Affiliate) Date: 2018.05.07 13:52:53 -07'00'

19. Software Owner (Signature)	WE Nichols Print	Date
20. Test Personnel: Sign	U Zaher Print	Date
Sign	Print	Date
Sign	Print	Date

Approved By:

21. Software SME (Signature)	N/R per SMP Print	Date

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