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Geographic and Operational Site Parameters List (GOSPL) for Hanford Assessments

G. V. Last
W. E. Nichols
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June 2006



Prepared for the U.S. Department of Energy
under Contract DE-AC05-76RL01830

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Richland, Washington 99352

Preface

This data package was originally prepared to support a 2004 composite analysis (CA) of low-level waste disposal at the Hanford Site. The *Technical Scope and Approach for the 2004 Composite Analysis of Low Level Waste Disposal at the Hanford Site* (Kincaid et al. 2004) identified the requirements for that analysis and served as the basis for initial preparation of this data package. Completion of the 2004 CA was later deferred, with the *2004 Annual Status Report for the Composite Analysis of Low-Level Waste Disposal in the Central Plateau at the Hanford Site* (DOE 2005) indicating that a comprehensive update to the CA was in preparation and would be submitted in 2006.

However, the U.S. Department of Energy (DOE) has recently decided to further defer the CA update and will use the cumulative assessment currently under preparation for the environmental impact statement (EIS) being prepared for tank closure and other site decisions as the updated CA. Submittal of the draft EIS is currently planned for FY 2008.

Executive Summary

This data package describes the facility-specific parameters (e.g., location, operational dates, etc.) used to numerically simulate contaminant flow and transport in large-scale Hanford assessments. Kincaid et al. (2004) indicated that the System Assessment Capability (SAC) (Kincaid et al. 2000; Bryce et al. 2002; Eslinger 2002a, 2002b) would be used to analyze over a thousand different waste sites. A master spreadsheet termed the Geographic and Operational Site Parameters List (GOSPL) was assembled to facilitate the generation of keyword input files containing general information on each waste site/facility, its operational/disposal history, and its environmental settings (past, current, and future). This report briefly describes each of the key data fields, including the source(s) of data, and provides the resulting inputs to be used for large-scale Hanford assessments.

Acknowledgments

The authors would like to acknowledge Thomas W. Fogwell and the Groundwater Remediation Project managed by Fluor Hanford, Inc. for supporting preparation of the original (Rev. 0) document. We would also like to thank Paul W. Eslinger and Carmen Arimescu for their technical review of the electronic data transfer package, and Robert W. Bryce and Chris Murray for their technical reviews. The authors would like to thank Launa F. Morasch for her technical editorial support and Kathy Neiderhiser and the rest of the Publication Design Team for their support in producing this document.

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1.0 Introduction

Kincaid et al. (2004) describe the technical scope of a large-scale assessment for the Hanford Site and the approach to perform that analysis. They identified 1,052 waste sites from the 2,730 Waste Information Data System (WIDS) sites and several existing and future storage sites for inclusion in a large-scale Hanford assessment.¹ Each of these sites will be modeled as an individual release or storage site whenever inventory and release data permit. Beginning in fiscal year (FY) 2003, the U.S. Department of Energy Richland Operations Office (DOE-RL) initiated activities to develop the input data needed to support large-scale Hanford assessments. This report describes the compilation of site-specific parameters for incorporation into the Geographic and Operational Site Parameters List (GOSPL) to support large-scale Hanford assessments. This work was initially conducted as part of the Characterization of Systems Task of the Groundwater Remediation Project (formerly the Groundwater Protection Program) managed by Fluor Hanford, Inc., Richland, Washington. It has since been revised to incorporate updated approaches and input values as part of the Characterization of Systems Project managed by the Pacific Northwest National Laboratory, for the DOE-RL.

¹ Originally 974 of 2,730 Waste Information Data System (WIDS) sites were identified for inclusion in the large-scale Hanford assessment. Further work has now identified 1,052 sites, with the change being a function of 8 additional waste sites and 70 clean water sites being added to the analysis. The clean water sites have been added to the analysis to ensure consistent handling of all large water sources impacting the groundwater simulation. An additional 25 sites were included to account for offsite transfers, and a single pseudo site was added to represent the rapid movement of waste to the aquifer at the site of the 216-U-1&2 cribs. The total number of sites in the analysis is 1,078.

2.0 Background

Kincaid et al. (2004) indicated that the System Assessment Capability (SAC) (Kincaid et al. 2000; Bryce et al. 2002; Eslinger 2002a, 2002b) would be used for a large-scale Hanford assessment. The SAC is a set of models and data that have been assembled since the 1998 CA (Kincaid et al. 1998) was performed to estimate the impact of waste that will remain at the Hanford Site. Computer codes that have been well tested at the Hanford Site have been used when possible and new software has been written when necessary to simulate the features and processes that affect the release of contaminants into the environment, transport of contaminants through the environment, and the impact those contaminants have on living systems, cultures, and the local economy. The various SAC components have been organized to simulate the transport and fate of contaminants from their presence in Hanford waste sites, through their release into the vadose zone, to their movement in the groundwater, and into the Columbia River. Components of SAC such as the groundwater model, the ecological impact component, and the human health component were originally developed and tested for previous Hanford assessments.

The elements of the SAC computational tool include:

- Inventory Module – provides an inventory of specific waste disposal and storage locations for the period 1944 to Hanford Site closure based on disposal records, process knowledge, the results of tank and field samples, and planned disposals and remedial actions. The year 2035 has generally been used as the Hanford Site closure date for large-scale Hanford assessments because it has been identified as the time of site closure for the majority of facilities (e.g., tanks, solid waste burial grounds, chemical separations plants). However, the commercial waste site (US Ecology) is assumed to receive its final waste shipment in 2056 and the graphite cores of the production reactors are assumed to be moved to the Central Plateau in 2065. The inventory module also identifies the material scheduled for disposal in offsite repositories, including high-level waste, transuranic waste, and spent fuel.
- Release Module – simulates the annual release of contaminants to the vadose zone from the variety of waste types in the modeled waste sites. This module also simulates future remedial actions that move *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) waste to the Environmental Restoration Disposal Facility (ERDF) and other future operational (e.g., low-level radioactive waste) and *Resource Conservation and Recovery Act* (RCRA) waste to permanent disposal locations.
- Air Transport Module – simulates the transport of contaminants through the air pathway from release points to points of deposition.
- Vadose Zone Transport Module – simulates fluid flow and contaminant transport in the vadose zone, which is the unsaturated sediment between the land surface and the unconfined aquifer. The module also simulates the release of volatile contaminants out of the vadose zone into the air pathway.
- Groundwater Transport Module – simulates fluid flow and contaminant transport in the unconfined aquifer that underlies the Hanford Site using a transient inverse calibrated three-dimensional groundwater model.

- Soil Module – simulates the buildup and depletion of contaminants in the plant root-zone soil layer due to air deposition and irrigation. Solutions are available for the cases of no irrigation, irrigation with groundwater, and irrigation with river water.
- River Module – simulates river flow and contaminant/sediment transport in the Hanford Reach of the Columbia River from Vernita Bridge downstream to its confluence with the Yakima River. This module simulates background concentrations and background together with inputs from the Hanford Site to enable an assessment of the incremental impact of the Hanford Site to the Columbia River and its ecosystem.
- Riparian Zone Module – uses river and groundwater information to simulate the concentration of contaminants in seep or spring water and in the wet soil and sediments on the banks of the Columbia River.
- Risk/Impact Modules – performs risk/impact analysis in four topical areas: human health, ecological health, economic impact, and cultural impact.

Each module was assembled so that it could be tested and evaluated independently of the other modules. The inventory, release, environmental pathways, and risk/impact modules were then linked to test the overall performance of the system.

A conceptual illustration of SAC (Figure 2.1) portrays a linear flow of information. In general, inventory feeds release mechanisms, which feed to the atmospheric, vadose zone, groundwater, and Columbia River pathways. At times, release occurs directly to the groundwater through reverse wells and to the Columbia River from the single-pass reactors. During chemical separation plant operation, direct release also occurred to the atmosphere. The atmosphere, groundwater, Columbia River, riparian zone and soil technical modules provide media-specific concentration estimates used in the risk and impact assessment.

System Assessment Capability Conceptual Model

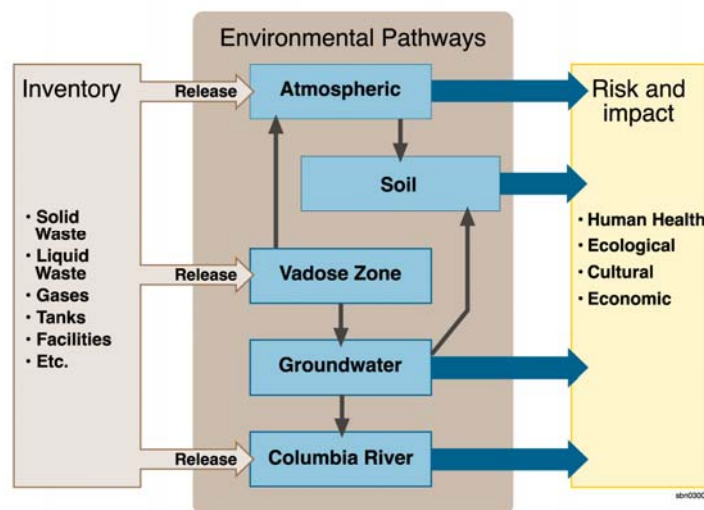


Figure 2.1. Conceptual Model of the System Assessment Capability

Background information on the development of the initial SAC is presented in *Groundwater/Vadose Zone Integration Project: Preliminary System Assessment Capability Concepts for Architecture, Platform and Data Management*.² That document includes a description of possible alternative architectures for SAC as well as alternative conceptual models for each technical element of the capability. Design of the initial SAC tool is summarized in Kincaid et al. (2000). Results of an initial assessment performed with the SAC are provided in Bryce et al. (2002).

A description of the software is provided in Eslinger et al. (2004a, b, c). The system of codes includes existing computer programs, new computer programs, electronic data libraries, and data formatting processors (or data translators). The relationships among code modules that make up the SAC Systems Code are illustrated in Figure 2.2. Major modules appearing on the left side of the diagram perform inventory and transport calculations providing estimates of the concentrations of analytes in various media. Modules shown on the right perform calculations related to the impact from the contaminated media. Impacts include potential effects on humans, the ecology of the area, the economy of the region, and the proximity of contaminants to social and cultural resources.

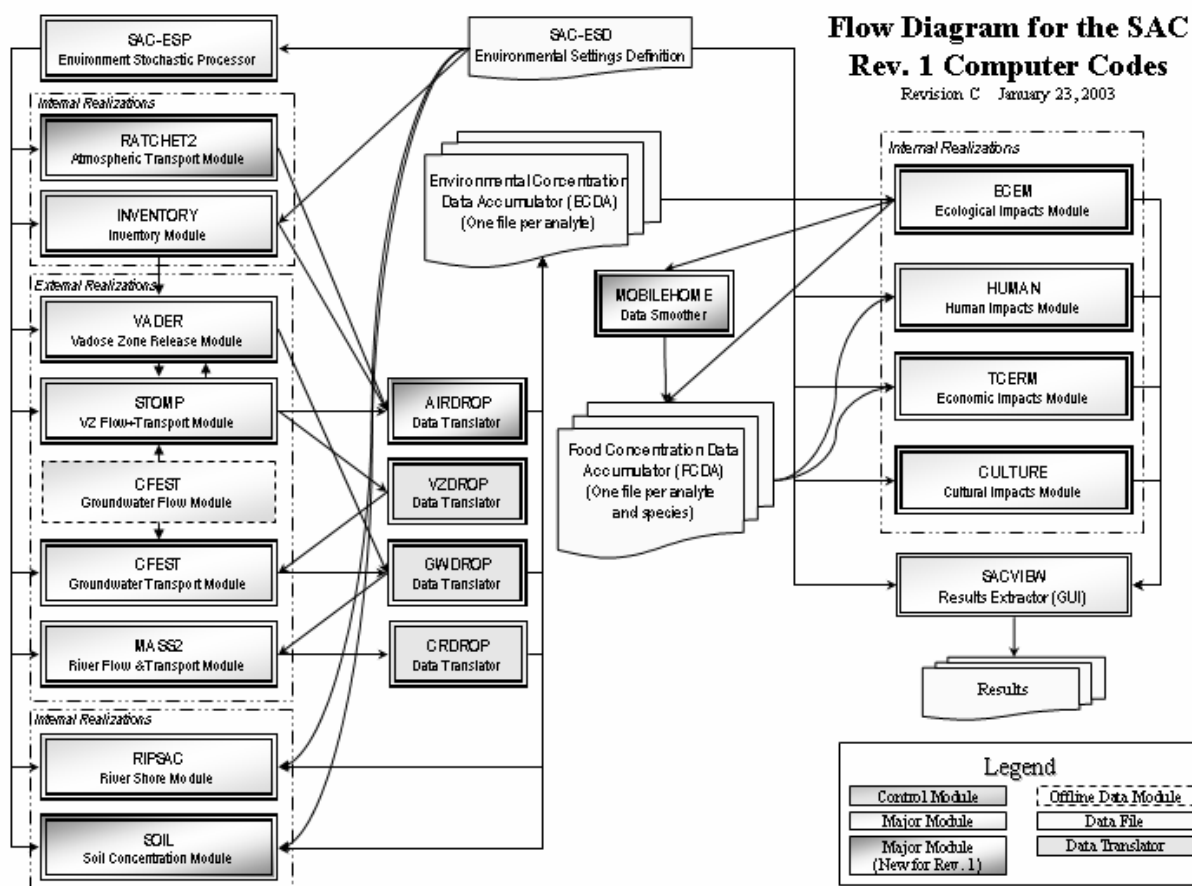


Figure 2.2. Information Flow in SAC Rev. 1 Software Design

² Groundwater/Vadose Zone Integration Project: Preliminary System Assessment Capability Concepts for Architecture, Platform and Data Management. (<http://www.hanford.gov/cp/gpp/modeling/sacarchive/9-30rep.pdf>)

As can be seen in Figure 2.2, the SAC Rev. 1 systems code consists of a number of components that can be executed separately. A number of pieces of information, such as the site identification, coordinates, release model, hydrogeologic column (template), remediation action, infiltration class, and the start time and stop time of a simulated problem, are needed for the system components. The environmental settings definition (ESD) keyword file was designed to contain this common information. Generally, if information is needed by one or more modules of the suite of codes, it is entered in the ESD keyword file. A number of the ESD keywords are generated from general information on the waste site, its operational/disposal history, and its environmental settings (past, current, and future). To facilitate the generation of these ESD keyword input files, a database termed GOSPL was assembled. GOSPL is the subject of this report.

One of the challenges associated with performing an assessment is appropriately presenting how uncertain the predictions are. This is because the attributes of the site that affect transport of contaminants, the impact of contaminants on living systems, and the future conditions used in the assessment, as well as many other factors upon which the predictions depend, are not completely known. SAC was developed to allow the performance of a probabilistic risk assessment so an indication of the effect of parameter uncertainty on results could be examined. In general, other sources of uncertainty, such as conceptual model uncertainty, will not be handled within the calculations but will be discussed in the interpretation of the results.

For large-scale Hanford assessments, SAC has been modified to enable the import of results from detailed assessments of individual waste sites by other Hanford Site programs/projects. Such results may come from selected tank waste analyses and performance assessments of facilities and waste forms (e.g., the Integrated Disposal Facility [IDF] Performance Assessment [Mann 2003]). Information on 1) release to vadose zone or 2) release to water table can be imported into the SAC deterministic analysis. Large-scale Hanford assessments will treat simulations provided by other Hanford Site programs as 'best estimate' simulations and incorporate them into an overall 'best estimate' deterministic simulation.

To perform a stochastic analysis, single-data values (geologic profile, hydraulic properties, geochemical properties, recharge sequence, etc.) used by other Hanford Site programs to perform assessments will be interpreted as 'best estimate' values for distributions where the data range is defined by the Hanford-wide data set previously compiled for SAC. When possible, a simplified model (such as, release and one-dimensional vadose zone transport or release and two-dimensional vadose zone transport) will be calibrated to reproduce key aspects of the simulation provided by the detailed assessment of another program/project. This simplified but calibrated model will be used to generate the stochastic realizations. Where available, comparison will be made between the range of SAC stochastic responses and the range of deterministic sensitivity cases provided by other Hanford Site programs/projects.

Significant differences may exist between the SAC representation of uncertainty and the representation of sensitivity created by other assessments. This is especially true when the site-specific assessment is using sensitivity analyses to explore alternate conceptual models of waste form release (for example, tank residuals modeled with a solubility model, diffusion model, advection-desorption model, linear release-time-model) or barrier performance (for example, alternate surface barriers and engineered containment systems surrounding a glass waste form). These deterministic sensitivity cases involving alternate conceptual models, can produce a broader range of results than the stochastic analysis of parameter uncertainty for a single conceptual model.

3.0 Geographic and Operational Site Parameter List Definitions

Of the more than 2,730 waste sites at Hanford and several storage sites, a subset of 1,052 sites was selected for inclusion in a large-scale Hanford assessment (Kincaid et al. 2006). A number of pieces of information are needed for the assessment of each waste site, such as the site location, the release model, the hydrostratigraphic column (template), and the remedial action and infiltration assumptions. If this type of information is needed by one or more modules of the suite of codes used by SAC, for a particular site, then the data are assembled for entry in the ESD keyword file. Of the 1,052 sites to be included in a large-scale Hanford assessment, 70 sites are included as "clean water sites" used only in the water balance simulations. Data have been assembled to enable the simulation of each of the 1,052 sites, individually, using their site-specific parameters and environmental settings. An additional 25 sites are included as place holders used to account for future offsite transfers of immobilized high-level waste, transuranic (TRU) waste, spent nuclear fuel, and special nuclear material. Finally, an alternate model of the 216-U-1 & 2 crib system, 216-U-1%2-Fast, is included to simulate the rapid release of crib contents to the underlying aquifer in 1985. Thus, while the total number of active sites in GOSPL is 1,052, the total number of sites in Hanford assessments at this time is 1,078.

A master spreadsheet termed GOSPL was developed for the initial assessment conducted using the SAC (Bryce et. al. 2002). It was used to define the site-specific location and facility design parameters as well as the key model assumptions for each assessment. The GOSPL has continued to evolve as the site information and assessment basis has changed. The GOSPL spreadsheet has evolved to include a number of related and linked spreadsheets all contained within a single Excel Workbook. The GOSPL workbook (as well as other input data sets) is managed under a data configuration and communication management plan.³ A readiness review was conducted and the file placed under configuration management on August 24, 2005. Subsequent changes were managed and documented via a data change request (DCR). Each revised file is uniquely identified with a descriptive name, the date the file was revised, and the corresponding DCR number. For example:

GOSPL_2006-06-08_DCR-0056.xls

identifies the GOSPL file that was created on June 8, 2006 in response to changes requested under DCR-0056. This is the most recent version of GOSPL that is described herein.

The main GOSPL spreadsheet can generally be subdivided into three main sections: Site-Specific Parameters, Model-Specific Instructions, and Remediation/Infiltration Assumptions. The following sections provide brief descriptions of each key data field, including the data field name (long name), the short name (name used in column headings), and the source(s) of data and corresponding database table name (name of the source database table – if any). Note that other subordinate data fields and companion spreadsheets that are not directly used by the current SAC modules are not described here. A simplified

³ Nichols, WE, PW Eslinger, and GV Last. February 3, 2006. *Hanford Remediation Assessment Project Data Configuration and Communication Management Plan, Rev. 1.1*. Pacific Northwest National Laboratory, Richland, Washington.

rendition of the main GOSPL spreadsheet (containing the 1,052 sites to be individually simulated for a large-scale Hanford assessment) is provided in Appendix A.

3.1 Site-Specific Parameters

Key site-specific geographic parameters used in the SAC include such input as the site identifiers (e.g., Site Code), general site design and operational history information, site geographic information (e.g., location), and facility dimensions. Much of this information is taken from the WIDS. Please refer to the WIDS home page on the Hanford Intranet at <http://apweb02.rl.gov/rapidweb/phmc/cp/wids/index.cfm?PageNum=1>, and in particular the WIDS Data Field Definitions and Criteria <http://apweb02.rl.gov/rapidweb/phmc/cp/wids/docs/5/docs/datacrit1.pdf>. The following section headings include the data field name (long name), the short name (name used in column headings), and the source database/table name (if any).

3.1.1 Site Identifiers

There are three fields used to identify each specific site to be represented in Hanford assessments: the WIDS Site Identification Number, the Site Code, and the Site Names.

3.1.1.1 WIDS Site Identification Number (SiteId) – WIDS/Site Table

The WIDS SiteId (e.g., 575) provides a numeric identification number to uniquely identify each site record within WIDS. The primary data source for this information is the Site Table within the WIDS database, either directly, or indirectly via the *Hanford Site Waste Management Units Report* (DOE 2003) or the QMAP geospatial map portal (<http://www7.rl.gov/cfroot/knowledgenet/qmap/index.cfm>). Future sites or facilities not contained in the WIDS database were assigned a SiteId equal to or greater than 9,900.

3.1.1.2 WIDS Site Code (SiteCode) – WIDS/Site Table

The SiteCode (e.g., 216-Z-9) is a unique alphanumeric identification tag (code) assigned to a site when it is entered into WIDS. The Hanford Site has had no single naming convention/standard for structures and facilities, and changes to the naming conventions have resulted in confusion over the names of some sites. Thus, the WIDS site code is used as a generic identifier, while all known aliases are provided in the Site Names field (see Section 3.1.1.3).

Historically the site codes were assigned in accordance with the facility naming conventions in use at the time the site was entered into WIDS. For example: SiteCode 216-B-24 indicates this site was a liquid waste disposal facility located in the 200 Areas in the vicinity of the B Plant complex, whereas SiteCode 218-W-5 indicates this site as a dry waste landfill (burial ground) located in 200 West Area. Some of these older site codes were modified during database reengineering, converting very long names to initials.

For newly entered sites, the SiteCode has been automatically assigned by the database. It is given a prefix indicating the designated area in which the site is located (such as 100-D, 200-E, 300, 600, etc.), followed by the next sequential number from the previously entered site for that area. There is no attempt to relate the SiteCode to the facility type.

The primary data source for the SiteCode is the Site Table within the WIDS database. However, planned or proposed future waste sites or facilities not contained in the WIDS database have been assigned their own unique identifier in GOSPL, specifically for use in the Hanford assessments.

3.1.1.3 WIDS Site Names (SiteNames) – WIDS/Site Table

The SiteNames field (e.g., 216-Z-9, 216-Z-9 Cavern, 234-5 Recuplex Cavern, 216-Z-10, 216-Z-9 Crib, 216-Z-9 Covered Trench) provides the common or working names by which the site is known, including all aliases for a site. The primary data source for this information is the Site Table within the WIDS database and was obtained either directly from the WIDS database, or indirectly via the *Hanford Site Waste Management Units Report* (DOE 2003) or the QMAP geospatial map portal. The purpose of this field is to provide a cross reference to previously used site codes and names used in reference documents.

3.1.2 General Site Design and Operational History Information

General information on the design and operational history of the site is captured via four fields: site type, waste/material type, operational start date, and operational end date. The following section headings include the data field name (long name), the short name (name used in column headings), and the source database/table name (if any).

3.1.2.1 Site Type (SiteType) – WIDS/Site Table

The SiteType (e.g., trench) describes the structural design of the site. Generally, the site types are defined by the general function of the site (e.g., ground disposal) and its design (e.g., trench). The primary data source for this information is the Site Table within the WIDS database, and was obtained either directly from the WIDS database, or indirectly via the *Hanford Site Waste Management Units Report* (DOE 2003) or the QMAP geospatial map portal. The purpose of this field is to help describe the manner in which the sites were used to store or dispose of waste.

3.1.2.2 Waste/Material Type (Type) – WIDS/Waste Table

The waste/material type describes the type of waste at the site in terms of its source, its appearance, its use before becoming a waste, or other general category (e.g., steam condensate, process effluent, bismuth phosphate metal waste). The primary source of this data is the Waste Table within the WIDS database. If the information was missing from WIDS, then this field was left blank. It may be that the type of waste was unknown or the information was not entered. The purpose of this information is to aid grouping of sites into similar waste chemistry groups for selection and assignment of linear sorption coefficients.

3.1.2.3 Operational Start Date (StartDate) – WIDS/Site Table

The start date is the year the site started receiving waste. The primary source of this data is the Site Table within the WIDS database. If the information was missing from WIDS, then a start date was estimated from other nearby sites receiving similar waste types or servicing the same major process facilities. In the case of future waste disposal (e.g., the IDF), the operational start date was assumed to coincide with DOE's intent to begin tank waste processing in 2008.

3.1.2.4 Operational End Date (EndDate) – WIDS/Site Table

The end date is the year the site stopped receiving waste. The primary source of this data is the Site Table within the WIDS database. If the information was missing from WIDS, then an end date was estimated from other nearby sites receiving similar waste types or servicing the same major process facilities. In the case of on-going or future waste disposal (e.g., the Integrated Disposal Facility), the operational end date was assumed to coincide with DOE's intent to complete the environmental management mission at the Hanford Site by 2035 (DOE 2002).

3.1.3 Geographic Information

The basic geographic information captured for each site includes the site location and the type of feature used to represent the site within the Hanford Geographic Information System (HGIS) and *Hanford Site Atlas* (BHI 1998). The following section headings include the data field name (long name), the short name (name used in column headings), and the source database/table name (if any).

3.1.3.1 Site Location (Center X Coordinate, Center Y Coordinate) – WIDS/GisSite Table

The X and Y coordinates for the site location are defined in terms of the Washington State Plane Easting and Northing coordinates (respectively), Southern Section, North American Datum 1983, in meters. The coordinate information represents the centroid of the site for sites mapped as a polygon. For sites mapped as a point (e.g., injection/reverse well), it represents the site itself. The primary data source for this information is the GisSite Table within the WIDS database. This information was either taken directly from the WIDS database, or indirectly via the *Hanford Site Waste Management Units Report* (DOE 2003) or the QMAP geospatial map portal. However, coordinates are not recorded in WIDS for sites that are mapped as a line (e.g., sewers). So, for sites mapped as a line, and for sites where coordinate information is not available in WIDS, the centroid coordinates were estimated from HGIS documentation (i.e., the *Hanford Site Atlas* [BHI 1998]).

More detailed coordinate information was provided for large high volume liquid waste sites (e.g., ponds, ditches, cribs, and trenches) that might spatially overlap a number of different groundwater nodes. Rather than representing the centroid of the site, this information provides a number of key X,Y coordinate points that represent the perimeter of the site. Two fields are provided for this input, the number of coordinate points used to define the perimeter of the site, and the actual string of X, Y coordinates.

Number of X, Y Coordinate Points. This field provides the number of distinct X, Y coordinate points included in the X, Y coordinate string defined below.

X, Y Coordinate String. This field provides a string of paired X, Y coordinates used to define the perimeter of the site. The primary source of this information comes from coordinates of select key points tracked from the QMAP geospatial map portal (<http://www7.rl.gov/cfroot/knowledgenet/qmap/index.cfm>) or manually measured from HGIS documentation (i.e., the *Hanford Site Atlas* [BHI 1998]). The data are provided in the form (X,Y), (X, Y), (X, Y), where each coordinate pair is contained within a set of parentheses, and separated for the coordinate pair by a comma.

3.1.3.2 GIS Feature Type (GISFeatureType) – WIDS/GisSite Table

The Geographic Information System (GIS) feature type describes the spatial representation of the site features in HGIS. This includes sites mapped as a polygon, point, or line. The primary data source for this information is the GisSite Table within the WIDS database. If this information is missing in WIDS, then the field is left blank.

3.1.4 Facility Dimensions

Facility dimensions are captured via five fields generally taken from the WIDS database. These data fields include: Site Length, Site Width, Site Depth (or Height), Site Diameter, and Site Area. In general, dimensions are provided in length and width fields or in the diameter field, but not both.

3.1.4.1 Site Length (LengthMtrs) – WIDS/Dimensions Table

The site length is the longest dimension of a rectangular or nearly rectangular site. The primary source of this data is the Dimensions Table of the WIDS database. If the data were not directly available from WIDS, then the site length was estimated from the QMAP geospatial map portal or HGIS documentation (i.e., the *Hanford Site Atlas* [BHI 1998]). If the value is blank, then it may be that the site is not rectangular, the site length is unknown, or the information has not been entered (i.e., was not readily available for entry in the WIDS database).

3.1.4.2 Site Width (WidthMtrs) – WIDS/Dimensions Table

The site width is the shortest dimension of a rectangular or nearly rectangular site. The primary source of this data is the Dimensions Table of the WIDS database. If the data were not directly available from WIDS, then the site width was estimated from the QMAP geospatial map portal or HGIS documentation (i.e., the *Hanford Site Atlas* [BHI 1998]). If the value is blank, then it may be that the site is not rectangular, the site width is unknown, or the information has not been entered (i.e., was not readily available for entry in the WIDS database).

3.1.4.3 Site Depth/Height (DepthHeightMtrs) – WIDS/Dimensions Table

The site depth/height is the maximum depth of the site (in meters) below the ground surface or the maximum height of the unit above the ground surface. This includes the overburden depth. The primary source of this data is the Dimensions Table of the WIDS database. If the value is blank, then it may be that the depth/height is unknown, or the information has not been entered (i.e., was not readily available for entry in the WIDS database).

3.1.4.4 Site Diameter (DiameterMtrs) – WIDS/Dimensions Table

The site diameter is the distance (in meters) through the center of a circular or cylindrical (or nearly circular or cylindrical) site. The primary source of this data is the Dimensions Table of the WIDS database. If the field is blank then it may be that the site diameter is unknown, there is no diameter (e.g., the site is rectangular), or the information has not been entered.

3.1.4.5 Site Area (AreaSqMtrs) – WIDS/Dimensions Table

The site area is the surface extent of the site, measured in square meters. The primary source of this data is the Dimensions Table of the WIDS database. If the data were not directly available from WIDS, then the site area was calculated from other site dimensions (i.e., site width and site length, or site diameter). If site dimension information was unavailable, then the area was estimated from the QMAP geospatial map portal or HGIS documentation (i.e., the *Hanford Site Atlas* [BHI 1998]). If data could not be found with which to estimate the site area, then the site was assigned a default value. Table 3.1 lists the default site area values used for different site types. The use of nines in the default values is done purposely to signal users of the data when a default has been assigned.

Table 3.1. Default Site Areas

Site Type	Default Area (m ²)
Unplanned Release, French Drain	0.999
Storage Tank, Trench	9.99
Radioactive Process Sewer, Crib	99.9
Burial Ground	999

The site area is used to represent the footprint of the release area (e.g., the bottom area of a crib). However, a comparison of facility dimension information in the WIDS with that by Maxfield (1979) suggests that the site area as recorded in the WIDS is quite a bit bigger than the actual bottom area of the waste sites. It is believed that the site area recorded in WIDS represents the maximum surficial extent of the facility, or perhaps even the fenced boundaries of the radiation zone surrounding the site. Thus, site area, as recorded in the WIDS, may overestimate the actual footprint of the release area.

3.2 Model-Specific Instructions

This portion of GOSPL provides key model instructions for various components of the SAC system. This includes information regarding the release models and the vadose zone hydrogeologic templates.

3.2.1 Selected for Simulation

This field identifies those sites that have been selected for simulation in Hanford assessments. This field designates those waste sites selected for simulation with a '1,' designates 'clean water' sites with a '2,' and designates those that will not be simulated with a '0' or left blank. **Please note that data associated with those sites designated as not being simulated may be incomplete or outdated. There has been no attempt to review or assure the quality of the data associated with non-simulated sites, thus, these data should not be used.**

3.2.2 Release Model Designation

The Release Model field is used to identify the type of release model that will be used in the SAC simulations. The designation for each site is based in part on the site type (see Section 3.1.2.1), the physical state of the waste (as taken from the PhysicalState field in the Waste Table of WIDS), and the material type (see Section 3.1.2.2). Table 3.2 lists the release model designations generally assigned to

various site types. Note that the release models assigned to each site are subjective in nature, based on best professional judgment, and may account for a combination of physiochemical processes (i.e., multiple release models).

Table 3.2. Summary of Release Model Assignments to Waste Source Types (after Riley and LoPresti 2006)

Release Model	Type of Model	Site/Waste Source Type
Atmosphere	Immediate release to the Atmosphere	Stacks
Liquid	Immediate release to vadose zone sediments	Past leaks and retrieval losses from single-shell tanks, ^(a) unplanned releases, ^(b) trenches, cribs, drain/tile fields, radioactive process sewers, French drains, retention basins, ponds, ditches, sumps, injection/reverse wells, storage tanks, diversion boxes, catch tanks, valve pits, settling tanks, receiving vaults, and neutralization tanks
Soil-Debris	Desorption and dissolution by infiltrating water	Unplanned releases, ^(b) burial grounds, laboratories, storage, landfills, surplus production sites (i.e., the soil below and surrounding a facility), sand filters ^(c)
Cement (Diffusion)	Diffusion from solid matrix	Process unit/plants, control structures, storage tunnels, cemented waste in burial grounds, single-shell tank residuals, double-shell tank residuals
Salt-cake	Dissolution of nitrate salt with congruent release of contaminants	Simulations of contaminant release from single shell tank residuals may be conducted with the saltcake model as a sensitivity analysis
Reactor Block	Corrosion of shielding and metal components and leaching of graphite	Decommissioned surplus production reactor cores ^(d)
Glass	Imported release to water table file from Integrated Disposal Facility (IDF) performance assessment (PA); results from reactive geochemistry model of glass corrosion and vadose zone transport	Low-activity waste glass as well as category 1 low-level waste, category 3 low-level waste, and mixed low-level waste in the IDF will be simulated in Hanford assessments by importing the IDF PA base case release-to-water-table file for all contaminants.
River	Immediate release to the River	Process sewer, outfall
<p>(a) Releases from single-shell tanks will be modeled using a combination of liquid, and cement models. Releases may include past tank leaks, liquid released during retrieval, and contaminant release from dissolution of residual solids following waste retrieval completion.</p> <p>(b) Modeled as initial liquid release, release from surface contaminated soil, or a combination of both.</p> <p>(c) Site 116-C-2C uses the liquid release model.</p> <p>(d) No inventory releases occur from reactor cores post-operational period until they are relocated from the 100 Area to the Central Plateau. Inventory release from reactor cores buried on the Central Plateau begins in 2065.</p>		

3.2.3 Vadose Zone Model Hydrostratigraphy

Each site contained in the GOSPL was assigned to a general vadose zone hydrostratigraphic profile based on its location within one of 30 geographic areas (representing 17 general geographic areas and 13 site-specific locations), its site type (e.g., surface, near surface, tank, or injection well), and its waste chemistry designation (Last et al. 2006). Each hydrostratigraphic profile (template) identifies the hydraulic and geochemical parameters needed to simulate flow and transport through the vadose zone using the Subsurface Transport Over Multiple Phases (STOMP) code (White and Oostrom 1996). As many as five variations of a single hydrostratigraphic template were incorporated to more accurately represent the depth of waste releases and the thickness of the vadose zone beneath the point of release. Additional variations of the hydrostratigraphic templates were necessary to accommodate variations in K_d values associated with different waste chemistry designations. Thus, a series of 56 base templates were ultimately identified using a unique alphanumeric code consisting of a three-digit number that reflects the waste site type, a letter designating the geographic area, and a number designating the waste chemistry group for assigning K_d values. Thirteen additional site-specific hydrostratigraphic templates were created by adding additional alphanumeric characters to the geographic area designation. These codes are explained below. A more complete discussion regarding the development of the vadose zone templates is provided by Last et al. (2006).

3.2.3.1 VZ (Vadose Zone) Template Site Type (reflecting the depth of waste injection)

The VZ Template Site Type Code (e.g., 216) generally consists of a three-digit number, with the first digit indicating the operational area in which the facility is located, and the second and third digits signifying the relative depth of waste release based on its facility type (see Table 3.3). This code is primarily derived from the WIDS SiteCode (see Section 3.1.1.2), the WIDS SiteType (see Section 3.1.2.1), the WIDS DepthHeightMtrs (see Section 3.1.4.3), and the WIDS Site Description (SiteDesc), which are used to classify the sites into six main categories reflecting the relative depth of waste release as defined in Table 3.3. This code identifies variants to the geographic area hydrostratigraphic columns to account for the thickness of the soil column beneath different waste release depths.

3.2.3.2 Geographic Area

Seventeen general geographic areas were identified that could each be represented by a single generalized hydrostratigraphic column (Figure 3.1). Each of the six 100 Areas were designated as separate geographic areas because each area is geographically distinct and have distinct hydrogeologic characteristics. The 200 Areas were divided into seven geographic areas based on general differences in hydrogeologic characteristics. The 200 West and 200 East Areas were each divided into two geographic areas, while additional geographic areas were designated for the 200 North Area, Gable Mountain Pond area, and the B Pond area. A single geographic area was designated to encompass waste sites in the 300 Area. Finally, three additional geographic areas were defined for isolated sites in the 400 and 600 Areas.

Table 3.4 presents the letter designations and brief descriptions of each geographic area. Thirteen site-specific designations were created by adding additional alphanumeric characters to two of the geographic area designations (Table 3.5).

Table 3.3. Site Type Codes Used in the Hydrostratigraphic Templates (after Last et al. 2006)

Site Type Code ^(a)	Relative Depth of Waste Release	Representative WIDS Site Types
100, 200, 300, 400	Ground Surface (generally less than 3 m deep).	Surface and/or near surface facilities (e.g., process sewers, reactor buildings, ^(b) laboratory buildings, storage, stacks, ponds, ditches, valve pits, process unit/plants, ^(b) unplanned releases except tank leaks).
116, 216, 316, 616	Shallow Subsurface (generally 3-15 m below ground surface)	Shallow liquid and/or dry waste disposal facilities (e.g., cribs, burial grounds, retention basins, trenches, French drains, storage tunnels, drain/tile fields, pipelines, sewers).
241	Intermediate Subsurface (generally 9 to 17 m below ground surface)	High level waste tanks, settling tanks, diversion boxes, catch tanks, tank leak unplanned releases.
166, 266	Deep Subsurface (generally greater than 18 m below ground surface)	Deep injection sites (e.g., reverse [injection] wells)
276	Very Deep Subsurface (generally near or into the water table)	Very deep injection sites (e.g., very deep reverse [injection] wells)
River ^(c)	River Level	River outfalls and associated pipelines
Pump ^(d)	Not Applicable	Water supply wells
<p>(a) First digit represents the area: 1 = 100 Area, 2 = 200 Area, 3 = 300 Area, 4 = 400 Area, 6 = 600 Area. Second and third digits indicate the general facility type and relative release depth.</p> <p>(b) Some reactors and process unit/plants (such as canyon buildings) have basements and/or fairly deep foundations; however, for the ease of simulation, all above ground structures are treated the same.</p> <p>(c) River outfalls discharged waste directly to the river; thus, there is no vadose zone flow and transport component for these sites.</p> <p>(d) Water supply wells withdraw water from the aquifer; thus, there is no waste released and no vadose zone flow and transport component for these sites.</p> <p>WIDS = Waste Information Data System.</p>		

3.2.3.3 Waste Chemistry Group

Six waste chemistry types were defined by Kincaid et al. (1998) for use in the composite analysis published in 1998. These waste chemistry types describe chemically distinct waste streams that impact the sorption of contaminants and, therefore, the choice of K_d ranges for vadose zone transport simulations. These same waste chemistry designations were adapted for use in the initial assessment conducted using SAC to assign K_d values to the vadose zone base templates (Bryce et al. 2002). However, based on further evaluation of waste stream chemistry and their potential impact on the fate and transport of contaminants of concern, the original six waste stream categories used in these assessments were reduced to four.⁴ Two additional waste stream categories (see Table 3.6.) were later added to better represent waste releases from the Integrated Disposal Facility (Krupka et al. 2004). Refer to the vadose zone data package (Last et al. 2006) for additional information regarding the assignment of these waste chemistry designations.

⁴Cantrell KJ, RJ Serne, and GV Last. A white paper, *Waste Stream Descriptions, Impact Zones and Associated K_d Estimates Including Rationale for Selections* (Revision May 16, 2003), Pacific Northwest National Laboratory, Richland, Washington.

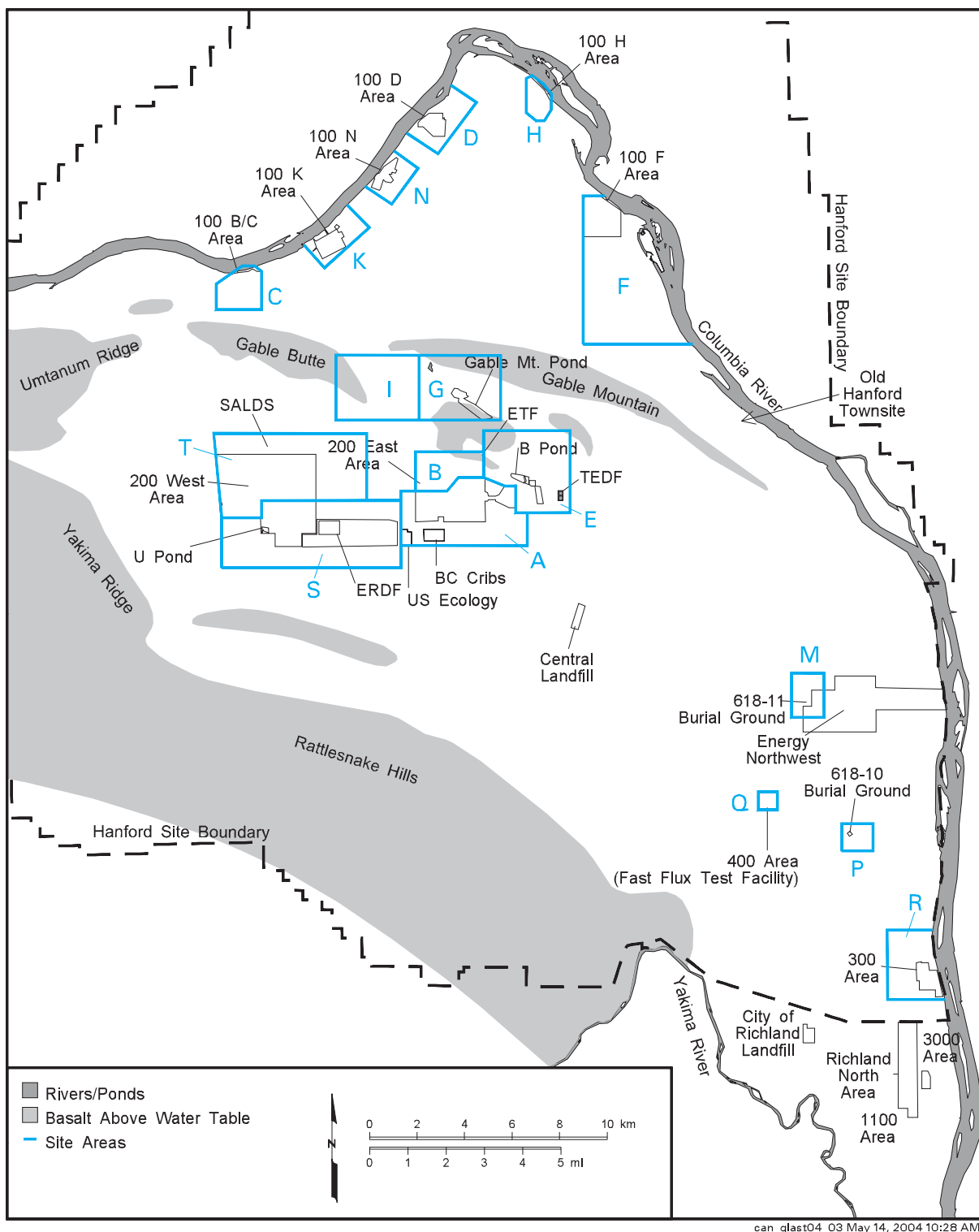


Figure 3.1. Geographic Areas Used to Define Different Hydrostratigraphic Profiles

Table 3.4. Geographic Area Designations Used in the Hydrostratigraphic Template Codes

Designation	Geographic Area Description
A	Southern 200 East Area – encompassing PUREX (A Plant), Hot Semi-Works (C-Plant), associated facilities (including PUREX tunnels), BC cribs, US Ecology, and the A, AN, AP, AW, AX, AY, AZ, C Tank Farms
B	Northwestern 200 East Area – encompassing B-Plant, associated waste disposal facilities, and the B, BX, BY Tank Farms
C	100-B/C Area
D	100-D/DR Area
E	East of 200 East – B-Pond Area
F	100-F Area
G	Gable Mountain Pond Area
H	100-H Area
I	200 North Area
K	100-KE/KW Area
M	600 Area near Energy Northwest and the 618-11 burial ground
N	100-N Area
P	600 Area southwest of the 400 Area near the 618-10 burial ground
Q	400 Area
R	300 Area
S	Southern 200 West Area – encompassing REDOX (S-Plant), U-Plant, Z-Plant, associated facilities, ERDF, and the S, SX, SY, U Tank Farms
T	Northern 200 West Area - encompassing T Plant , associated facilities, and the T, TX, TY Tank Farms
ERDF = Environmental Restoration Disposal Facility. PUREX = Plutonium-Uranium Extraction (Plant). REDOX = Reduction Oxidation (Plant).	

Table 3.5. Site-Specific Area Designations Used in the Hydrostratigraphic Template Codes

Designation	Site-Specific Area Description
A_BC_W	Southern 200 East Area – representing the western portion of the BC cribs area
A_BC_E	Southern 200 East Area – representing the eastern portion of the BC cribs area
A_BCT_N	Southern 200 East Area – representing the northern portion of the BC trench area
A_BCT_S	Southern 200 East Area – representing the southern portion of the BC trench area
A_BCT_W	Southern 200 East Area – representing the western portion of the BC trench area
A_C	Southern 200 East Area – representing the 241-C Tank Farm
A_ILAW_C	Southern 200 East Area – representing the central portion of the ILAW/IDF site
S_ERDF_E	Southern 200 West Area – representing the eastern half of ERDF
S_ERDF_W	Southern 200 West Area – representing the western half of ERDF
S_U	Southern 200 West Area – representing the 241-U Tank Farm
S_U_N	Southern 200 West Area – representing the northern portion of the 216-U-1&2 crib area
S_U_S	Southern 200 West Area – representing the southern portion of the 216-U-1&2 crib area
S_Z9	Southern 200 West Area – representing the 216-Z-9 trench area
ERDF = Environmental Restoration Disposal Facility. IDF = Integrated Disposal Facility. ILAW = Immobilized Low-Activity Waste (disposal facility).	

Table 3.6. Waste Chemistry Groups Used in the Base Template Codes

Waste Chemistry Designation	Waste Stream Description
1	Very Acidic
2	High Salt/Very Basic
3	Chelates/High Salt
4	Low Salt/Near Neutral
5	IDF Vitrified Waste
6	IDF Cementitious Waste

3.2.3.4 VZ Base Template

A total of 72 base templates were identified based on various components from the VZ Template Site Type, Geographic Area, and Waste Chemistry Group. This field is calculated by combining information from these data fields, unless the VZ Template Site Type is 'River,' in which case this field is calculated as 'River.' However, if the VZ Template Site Type is blank or the site is not on the list of sites to be simulated (i.e., the Selected for Simulation field is '0'), then this field is left blank.

Table 3.7 provides a description of the general hydrostratigraphic templates established for each geographic area. Table 3.8 describes the site-specific templates set up for a number of key facilities within two of these general geographic areas.

3.2.3.5 Site Template

The Site Template identifies each site for the set of geographic and operational parameters to be used for the vadose zone simulations. This field was originally created so that similar sites could be simulated together using a single site template. However, for Hanford assessments, each site is simulated separately, so this field is identical to that of the WIDS SiteCode (see Section 3.1.1.2).

3.3 Remediation/Recharge Assumptions

This portion of the GOSPL provides key assumptions regarding the surface soil conditions and deep drainage (recharge) rates at each waste site. These soil conditions and recharge estimates were derived from a suite of available field data and computer simulation results and assembled into a suite of recharge classes that describe the probability distribution function for recharge at the site. Recharge classes are defined for a number of different time intervals: Pre-Operations, Operations, Post-Remediation, and Final State. Each recharge class was identified with a unique code based on either the primary native soil and vegetation type or the type and condition of surface barrier. Refer to the vadose zone data package (Last et al. 2006) for details.

Table 3.7. General Hydrostratigraphic Templates for Each Geographic Area

VZ Base Template Designation	Geographic Area		Waste Site Types		Waste Chemistry Designation ^(d)
	Area	Designation ^(a)	Description	Designation ^(b)	
100C-4	100 B/C	C	Surface Facilities	100	4
116C-4			Near Surface Facilities	116	4
100D-4	100 D	D	Surface Facilities	100	4
116D-4			Near Surface Facilities	116	4
100F-4	100 F	F	Surface Facilities	100	4
116F-4			Near Surface Facilities	116	4
100H-4	100 H	H	Surface Facilities	100	4
116H-4			Near Surface Facilities	116	4
100K-4	100 K	K	Surface Facilities	100	4
116K-4			Near Surface Facilities	116	4
166K-4			Reverse (Injection) Wells	166	4
100N-4	100 N	N	Surface Facilities	100	4
116N-4			Near Surface Facilities	116	4
200G-4	Gable Mtn. Pond	G	Surface Facilities	200	4
200I-4	200 North	I	Surface Facilities	200	4
200E-4	E 200 E (B-Pond)	E	Surface Facilities	200	4
216E-4			Near Surface Facilities	216	4
200B-2	N 200 E (B-Plant) (B-Plant)	B	Surface Facilities	200	2
200B-4					4
216B-2			Near Surface Facilities	216	2
216B-3					3
216B-4					4
241B-2			Tanks	241	2
266B-4			Reverse (Injection) Wells	266	4
267B-2				267 ^(c)	2
200A-2	S 200 E (PUREX, BC Cribs)	A	Surface Facilities	200	2
200A-4					4
216A-2			Near Surface Facilities	216	2
216A-4					4
241A-2			Tanks	241	2
241A-3					3
266A-4			Reverse (Injection) Wells	266	4
200S-2	S 200 W (REDOX, U-Plant, Z-Plant)	S	Surface Facilities	200	2
200S-4					4
216S-1			Near Surface Facilities	216	1
216S-2					2
216S-4					4
241S-2			Tanks	241	2
241S-3					3
241S-4					4
266S-4			Reverse (Injection) Wells	266	4

Table 3.7. (contd)

VZ Base Template Designation	Geographic Area		Waste Site Types		Waste Chemistry Designation ^(d)
	Area	Designation ^(a)	Description	Designation ^(b)	
200T-2	N 200 W (T-Plant)	T	Surface Facilities	200	2
200T-4					4
216T-2			Near Surface Facilities	216	2
216T-3					3
216T-4					4
241T-2			Tanks	241	2
266T-2			Reverse (Injection)	266	2
266T-4			Wells		4
300R-4	300 Area (North Richland)	R	Surface Facilities	300	4
316R-4			Near Surface Facilities	316	4
400Q-4	400	Q	Surface Facilities	400	4
616M-4	600	M	Near Surface Facilities	616	4
616P-4	600	P	Near Surface Facilities	616	4
Pump	-	-	Pump	-	-
River	-	-	River	-	-

(a) Assigned letter designation for geographic area.

(b) Assigned number designation for waste site type: first number designates traditional Hanford Site area (i.e., 100, 200, 300, 400, 600 Areas); last two numbers designate waste site type (00 = surface facilities, 16 = near surface facilities, 41 = tanks, 66/67 = reverse wells)

(c) Two designations are used for reverse wells that have very different depths within a single geographic area. The “67” designation distinguishes the very deep reverse wells from those at a more intermediate depth (66).

(d) Assigned number designation for waste chemistry type (see Table 3.6).
PUREX = Plutonium-Uranium Extraction (Plant).
REDOX = Reduction Oxidation (Plant).

Table 3.8. Site-Specific Templates Established for a Few Key Facilities

Template Designation	Site-Specific Area		Waste Site Types		Waste Chemistry Designation ^(c)
	Area	Designation ^(a)	Description	Designation ^(b)	
216A_BC_W-3	S 200 E, BC Cribs, Western Portion	A_BC_W	Near Surface Facilities	216	3
216A_BC_E-3	S 200 E, BC Cribs, Eastern Portion	A_BC_E	Near Surface Facilities	216	3
216A_BCT_N-3	S 200 E, BC Trenches, Northern Portion	A_BT_N	Near Surface Facilities	216	3
216A_BCT_N-4					4
216A_BCT_S-3	S 200 E, BC Trenches, Southern Portion	A_BT_S	Near Surface Facilities	216	3
216A_BCT_W-3	S 200 E, BC Trenches, Western Portion	A_BT_W	Near Surface Facilities	216	3
216A_ILAW_C-5	S 200 E, ILAW Site, Central Portion	A_ILAW_C	Near Surface Facilities	216	5
216A_ILAW_C-6					6
216S_ERDF_E-4	S 200 W, ERDF, eastern half	S_ERDF_E	Near Surface Facilities	216	4
216S_ERDF_W-4	S 200 W, ERDF, western half	S_ERDF_W	Near Surface Facilities	216	4
216S_U_N-4	S 200 W, 216-U-1&2 Area, Northern Portion	S_U_N	Near Surface Facilities	216	4
216S_U_S-4	S 200 W, 216-U-1&2 Area, Northern Portion	S_U_S	Near Surface Facilities	216	4
216S_Z9-1	S 200 W, 216-U-1&2 Area, Northern Portion	S_Z9	Near Surface Facilities	216	1
241A_C-2	S 200 E, 241-C Tank Farm	A_C	Tanks	241	2
241A_C-3					3
241S_U-2	S 200 W, 241-U Tank Farm	S_U	Tanks	241	2
<p>(a) Assigned letter designation for geographic area.</p> <p>(b) Assigned number designation for waste site type: first number designates traditional Hanford Site area (i.e., 100, 200, 300, 400, 600 Areas); last two numbers designate waste site type (00 = surface facilities, 16 = near surface facilities, 41 = tanks, 66/67 = reverse wells).</p> <p>(c) Assigned number designation for waste chemistry type (see Table 3.6).</p> <p>ERDF = Environmental Restoration Disposal Facility.</p> <p>ILAW = Immobilized Low-Activity Waste (disposal facility).</p>					

3.3.1 Pre-Operational Recharge Class

This field defines the recharge class to be applied to simulations for the time period prior to the establishment of the Hanford Site in 1943 and before any given waste site was constructed and placed in to operation. The source of this information is the vadose zone data package (Last et al. 2006), which generally assumed a natural soil cover with undisturbed shrub-steppe plant community and was based on the Hanford soil map produced by Hajek (1966). Table 3.9 lists the Pre-Operational Recharge Classes used for Hanford assessments.

Table 3.9. Pre-Operational Recharge Classes for Hanford Assessments

Recharge Class Code	Description	Best Estimate (mm/yr)	Estimated Standard Deviation (mm/yr)	Minimum (mm/yr)	Maximum (mm/yr)
E _b -s	Ephrata stony loam (E _b) - with shrub-steppe (s) plant community	1.5	0.75	0.75	3.0
E _i -s	Ephrata sandy loam (E _i) - with shrub-steppe (s) plant community	1.5	0.75	0.75	3.0
B _a -s	Burbank loamy sand (B _a) - with shrub-steppe (s) plant community	3.0	1.5	1.5	6.0
R _p -s	Rupert sand (R _p) - with shrub-steppe (s) plant community	4.0	2.0	2.0	8.0
R _{pi} -s	Rupert sand (R _p) near the IDF (i) - with shrub-steppe (s) plant community	0.9	0.45	0.45	1.8
R _{pu} -s	Rupert sand (R _p) near US Ecology (u) – with shrub-steppe (s) plant community	5.0 (5) ^(a)	2.5 (NA) ^(a)	2.5 (NA) ^(a)	10.0 (NA) ^(a)
W _a -s	Warden silt loam (W _a) – with shrub-steppe (s) plant community	0.04 (0.11)* (1.0)**	0.02 (0.06)* (0.5)**	0.02 (0.06)* (0.5)**	0.08 (0.22)* (2.0)**
River	Columbia River outfall locations	1	NA	NA	NA
<p>(a) Value used in reference case analyses</p> <p>* Values are based on the highest (rather than the average) of four values estimated from chloride data. These values maybe used in sensitivity analyses.⁵</p> <p>** Value used in reference case analyses to represent the final state of evapotranspiration (ET) surface barriers after design life.</p> <p>IDF = Integrated Disposal Facility.</p> <p>NA = Not applicable.</p>					

⁵ DOE (U.S. Department of Energy). October 21, 2005. *Technical Guidance Document for Composite Analysis of Low-Level Waste Disposal at the Hanford Site*. DOE/RL-2005-66, U.S. Department of Energy, Richland, Washington. (Unsigned).

3.3.2 Operational Recharge Class

This field defines the recharge classes to be used for simulations for the time period during and after site operations, prior to any site remediation. Once again, the source of this information comes directly from the vadose zone data package (Last et al. 2006). This generally assumes that the site is covered by disturbed native soils or backfilled soils with little or no vegetation; or by asphalt, buildings, concrete, or gravel covers. Table 3.10 lists the Operational Recharge Classes used for Hanford assessments.

Table 3.10. Operational Recharge Classes for Hanford Assessments

Recharge Class Code	Description	Best Estimate (mm/yr)	Estimated Standard Deviation (mm/yr)	Minimum (mm/yr)	Maximum (mm/yr) ^(a)
Eb-dn	Ephrata stony loam (Eb) - disturbed (d) with no (n) vegetation	17	8.5	8.5	34
Eb-ds	Ephrata stony loam (Eb) - disturbed (d) with young shrub-steppe (s) plant community	3 (4.0) ^(b)	1.5 (2.0) ^(b)	1.5 (2.0) ^(b)	6 (8.0) ^(b)
El-dn	Ephrata sandy loam (El) - disturbed (d) with no (n) vegetation	17	8.5	8.5	34
El-ds	Ephrata sandy loam (El) - disturbed (d) with young shrub-steppe (s) plant community	3 (4.0) ^(b)	1.5 (2.0) ^(b)	1.5 (2.0) ^(b)	6 (8.0) ^(b)
Ba-dn	Burbank loamy sand (Ba) - disturbed (d) with no (n) vegetation	52 (53) ^(b)	26 (26.5) ^(b)	26 (26.5) ^(b)	101 (106)
Ba-ds	Burbank loamy sand (Ba) - disturbed (d) with young shrub-steppe (s) plant community	6 (4.0) ^(b)	3 (2.0) ^(b)	3 (2.0) ^(b)	12 (8.0) ^(b)
Rpi-dn	Rupert sand (Rp) near IDF (i) - disturbed (d) with no (n) vegetation	44	22	22	88
Rp-dn	Rupert sand (Rp) - disturbed (d) with no (n) vegetation	44	22	22	88
Rp-ds	Rupert sand (Rp) - disturbed (d) with young shrub-steppe (s) plant community	8 (4.0) ^(b)	4 (2.0) ^(b)	4 (2.0) ^(b)	16 (8.0) ^(b)
Rp-s	Rupert sand (Rp) - with shrub-steppe (s) plant community	4.0	2.0	2.0	8.0
Rpu-dn	Rupert sand (Rp) near US Ecology (u) - disturbed (d) with no (n) vegetation	30 (30) ^(b)	15 NA	15 NA	60 NA
G-dn	Gravel surface (G), disturbed – with no (n) vegetation	92 (100) ^(b)	46 NA	46 NA	101 NA
ABC	Soil Surface covered by Asphalt, Building, or Concrete	0.1	0.05	0.05	0.2
River	Columbia River Outfall locations	1	NA	NA	NA
(a) Note: the maximum recharge was truncated at the mean extended winter precipitation value of 101 mm/yr. (b) Value to be used in reference case analyses. ⁶ NA = Not applicable.					

⁶ DOE (U.S. Department of Energy). October 21, 2005. *Technical Guidance Document for Composite Analysis of Low-Level Waste Disposal at the Hanford Site*. DOE/RL-2005-66, U.S. Department of Energy, Richland, Washington. (Unsigned)

3.3.3 Interim Remedial Actions (IRA-1 and IRA-2)

Interim remedial actions (IRA) have been identified or proposed for some sites. Currently, the GOSPL is configured to handle two different interim remedial action events (IRA-1 and IRA-2). For those particular sites, three additional fields have been defined (Year IRA Complete, IRA Type, and IRA Recharge Class) for each remedial action event defined. The primary source of this information was from Maxfield (1979) or the WIDS database (via the *Hanford Site Waste Management Units Report* [DOE 2003]). An example for the BC cribs and trenches is shown in Table 3.11, with the fields in that table as defined below.

3.3.3.1 Year IRA Complete (year IRA-1 complete; year IRA-2 complete)

This field defines the year that the interim remedial action was completed.

Table 3.11. Example of Interim Remedial Actions Defined for Hanford Assessments

WIDS Site Code	IRA-1			IRA-2		
	Year IRA Complete	IRA Type	IRA Recharge Class	Year IRA Complete	IRA Type	IRA Recharge Class
216-B-14	1981	ABAR	Rp-ds			
216-B-20	1969	ABAR	G-dn	1982	ABAR	Rp-ds
ABAR = Aggregate barrier. IRA = Interim remedial actions. WIDS = Waste Information Data System.						

3.3.3.2 IRA Type (IRA-1 type, IRA-2 type)

This field defines the type of interim remedial action that was taken at the site. This includes: (1) remove, treat, and dispose (RTD) or (2) surface stabilization (e.g., aggregate barrier [ABAR], isolated barrier [IBAR]).

3.3.3.3 IRA Recharge Class (IRA-1 recharge class; IRA-2 recharge class)

This field, when populated, defines the recharge class to be applied to the site during the period after interim remediation and prior to any other interim remediation or final site remediation. Currently, for Hanford assessments, only two IRA recharge classes have been identified, G-dn and Rp-ds (as described in Table 3.10).

3.3.4 Final Remedial Action

Some form of remediation (or no action) was identified for each site. A number of data fields were used to define the recharge classes to be used during the period following remediation and prior to the long-term post-remediation/post closure final state of each waste site. The source of this information comes from the contractor and DOE/RL future plans for remedial action and site cleanup as described in the *Inventory Data Package for Hanford Assessments* (Kincaid et al. 2006). This source determined the schedule and type of remediation (e.g., engineered surface barriers) to be applied to each site to be simulated in Hanford assessments. The vadose zone data package (Last et al. 2006) describes the

assumptions regarding recharge rates to be used for barriers during the institutional control period, their design life, and after their design life. A key assumption of large-scale Hanford assessments is that deep drainage beneath barrier side slopes and the surrounding terrain does not appreciably affect contaminant release from immediately below the barrier, nor transport in the vadose zone to the water table. This assumption is consistent with the Composite Analysis (Kincaid et. al. 1998) as well as recent and ongoing assessments.

3.3.4.1 Year Remedial Action Complete

This field defines the planned (or actual) year that final remediation will be (or was) completed at the site. This assumes that all remedial action for that particular site is completed within a given year.

3.3.4.2 Remediation Type

This field identifies the type of remedial action planned (or completed) for the site, including: no action; decontamination and decommissioning (D&D); remove, treat, and dispose (RTD); isolated barriers (IBAR), or aggregate barriers (ABAR). This field identifies a number of different aggregate barriers defined by a unique alphanumeric code, with the same code assigned to all sites to be covered by the same aggregate barrier. Note that some waste sites are designated with a combination of remedial actions (e.g., RTD/IBAR).

3.3.4.3 Barrier Type

This field identifies the type of barrier planned (or completed) for the site. If the remediation type is anything other than an IBAR or ABAR, then this field is blank. Otherwise this field contains either 'ET-Cap' or 'Hanford' to designate the two types of surface barriers currently planned for Hanford waste sites. A third barrier type 'GS-Cap' is used for only one site, the US Ecology Site.

3.3.4.4 Barrier Recharge Class

This field assigns an infiltration (recharge) class to those sites that are to receive a surface barrier. If the remediation type (Section 3.3.6.2) is anything other than an IBAR or ABAR, then this field is blank. Otherwise this field is calculated from a lookup table of barrier recharge classes. The lookup table was initially developed to help address the possible effects of side slopes on barrier recharge rates and is based on the estimated barrier top-to-side slope ratio. However, for most large-scale Hanford assessments it is currently assumed that deep drainage beneath the barrier side slopes and the surrounding terrain does not appreciably affect contaminant release and transport (Last et al. 2006). Thus, for most Hanford assessments, the actual values in this field are not used; instead this field is used only as a switch (i.e., it is either populated or not populated [left blank]), to signal that the site's recharge rate will reflect some sort of surface barrier. The capability to use a lookup table of infiltration assignments that account for side slope influence has been retained only for possible use in sensitivity analyses.

3.3.4.5 Post-Remediation Recharge Classes

This field provides the recharge class to be used for the post-remediation time period (i.e., following site remediation and prior to any soil/barrier/vegetation evolution). This field is the same as the Barrier Recharge Class, if the Barrier Recharge Class is not blank. If the Barrier Recharge Class is blank and the Pre-Operational Recharge Class is 'River,' then the Post-Remediation Recharge Class is designated as

'NA' (not applicable). If, on the other hand, the Barrier Recharge Class is not blank and the Pre-Operational Recharge Class is not 'River,' then the Post-Remediation Recharge Class is modified from the Pre-Operational Recharge Class by replacing the suffix '-s' with '-ds' (to reflect disturbed soil conditions with young shrub-steppe vegetation). Table 3.12 provides some examples of how this field is derived.

Table 3.12. Examples of How the Post-Remediation Recharge Class is Derived

VZ Template Site Type	Pre-Operational Recharge Class	Barrier Recharge Class	Post-Remediation Recharge Class
216	Rp-s	RCRA C-18	RCRA C-18
River	River	(blank)	NA
216	Ba-s	(blank)	Ba-ds
NA = Not applicable. RCRA = Resource Conservation and Recovery Act. VZ = Vadose zone.			

Table 3.13 lists the post-remediation recharge classes for Hanford assessments. Note that for most Hanford assessments, all sizes of barriers have the same estimated recharge rates (i.e., there are no side-slope effects). Refer to the vadose zone data package (Last et al. 2006) for further discussion.

3.3.4.6 Post-Remediation/Barrier Design Life

This field defines the design life of the post-remediation period (i.e., that period after remediation is complete and prior to any significant evolution of the surface/barrier soils or succession of plant communities). Table 3.14 lists the Post-Remediation/Barrier Design Life for various surface/soil conditions. Note that this field is also used to define the transition period between the design life of surface barriers and the final state of these barriers, which for large-scale Hanford assessments is assumed to be equivalent in duration to the design life. During the transition period, barrier/soil performance is assumed to progressively change from the recharge rate during design life to the rate appropriate for the final state of the barrier or surface soils (Refer to Last et al. 2006 for a more complete discussion).

3.3.4.7 Post-Remediation/Barrier End Date

This field defines the date at which the post-remediation recharge period ends and the transition period (toward final long-term recharge class) begins. This field is calculated by adding the Design Life to the Year Remedial Action Complete. However, if the Release Model Designation is 'River,' then this field is calculated as 'NA.'

3.3.4.8 Final Long-Term Recharge Class

This field defines the final long-term recharge class to be used for the final simulation period. Table 3.15 lists the final long-term recharge classes for Hanford assessments.

Table 3.13. Post-Remediation Recharge Classes

Recharge Class Code	Description	Best Estimate (mm/yr)	Estimated Standard Deviation (mm/yr)	Minimum (mm/yr)	Maximum (mm/yr)
RCRA C-Ixx	All evapotranspiration (ET) barriers equivalent to Modified RCRA C – barrier top during design life	0.1 (0.5) ^(a,b,c)	0.05 NA	0.05 NA	0.20 NA
Hanford-Ixx	Hanford Barrier – barrier top during design life	0.1 (0.5) ^(a,b,c)	0.05 NA	0.05 NA	0.20 NA
GS-Cap	Geosynthetic Cap used at the US Ecology Site	0.5 ^(d)	0.25	0.25	1.0
Ba-ds	Burbank loamy sand (Ba), disturbed (d) – with young shrub-steppe (s) plant community	6.0 (4) ^(e)	3.0 (2)	3.0 (2)	12 (8)
Eb-ds	Ephrata stony loam (Eb), disturbed (d) - with young shrub-steppe (s) vegetation	3.0 (4) ^(e)	1.5 (2)	1.5 (2)	6.0 (8)
El-ds	Ephrata sandy loam (El), disturbed (d) – with young shrub-steppe (s) vegetation	3.0 (4) ^(e)	1.5 (2)	1.5 (2)	6.0 (8)
Rp-ds	Rupert sand (Rp) outside 200 East, disturbed (d) – with young shrub-steppe (s) plant community	8.0 (4) ^(e)	4.0 (2)	4.0 (2)	16.0 (8)
NA	Columbia River outfall locations	NA	NA	NA	NA

NA = Not applicable.
xx = Refers to characters that designate various recharge classes based on a barrier's side slope to surface area ratio. However, for Hanford assessments, these recharge classes are treated the same.
Values in parentheses are used in reference case analyses.⁷

(a) U.S. DOE. 2004a. Technical Requirements Document for Integrated Disposal Facilities Vadose Zone and Groundwater Revised Analysis. November 23, 2004. Rev. 0. U.S. Department of Energy, Office of River Protection and Richland Operations Office, Richland, Washington.
(b) U.S. DOE. 2004b. Technical Requirements Document for Single-Shell Tank Performance Assessment Vadose Zone and Groundwater Revised Analysis. December 7, 2004. U.S. Department of Energy, Office of River Protection and Richland Operations Office, Richland, Washington.
(c) U.S. DOE. 2005. Technical Guidance Document for Tank Closure Environmental Impact Statement Vadose Zone and Groundwater Revised Analysis. March 25, 2005. Rev. 0. U.S. Department of Energy, Office of River Protection and Richland Operations Office, Richland, Washington.
(d) Washington State Department of Health and Washington State Department of Ecology. 2004. Final Environmental Impact Statement, Commercial Low-Level Radioactive Waste Disposal Site, Richland, Washington. DOH Publication 320-031. Washington State Department of Health, Olympia, Washington.
(e) All waste sites that do not receive surface barriers are assumed to transition from operational era infiltration to that of a disturbed soil/sediment profile with a mature shrub-steppe and net infiltration rate of 4.0 mm/yr.

⁷ DOE (U.S. Department of Energy). October 21, 2005. *Technical Guidance Document for Composite Analysis of Low-Level Waste Disposal at the Hanford Site*. DOE/RL-2005-66, U.S. Department of Energy, Richland, Washington. (Unsigned)

Table 3.14. Post-Remediation/Barrier Design Life

Post-Remediation Soil Conditions (recharge classes)	Design Life (years)
Native soil with young shrub-steppe plant community (Ba-ds, Eb-ds, El-ds, Rp-ds)	30
Modified RCRA C (or equivalent ET) surface barrier (RCRA C-IXX)	500
Geosynthetic Cap used at the US Ecology Site (GS-Cap)	500
Hanford surface barrier (Hanford-IXX)	1,000
Columbia River discharge locations (NA)	NA
NA = Not applicable. RCRA = Resource Conservation and Recovery Act.	

Table 3.15. Final Long-Term Recharge Classes for Hanford Assessments

Recharge Class Code	Description	Best Estimate (mm/yr)	Estimated Standard Deviation (mm/yr)	Minimum (mm/yr)	Maximum (mm/yr)
Eb-s	Ephrata stony loam (Eb) - with shrub-steppe (s) plant community	1.5	0.75	0.75	3.0
El-s	Ephrata sandy loam (El) - with shrub-steppe (s) plant community	1.5	0.75	0.75	3.0
Ba-s	Burbank loamy sand (Ba) - with shrub-steppe (s) plant community	3.0	1.5	1.5	6.0
Rp-s	Rupert sand (Rp) - with shrub-steppe (s) plant community	4.0	2.0	2.0	8.0
Rpu-s	Rupert sand (Rp) near US Ecology (u) – with shrub-steppe (s) plant community	5.0 (5) ^(a)	2.5 NA ^(a)	2.5 NA ^(a)	10.0 NA ^(a)
Wa-s	Warden silt loam (Wa) – with shrub-steppe (s) plant community	0.04 (0.11)* (1.0)**	0.02 (0.06) (0.5)	0.02 (0.06) (0.5)	0.08 (0.22) (2.0)
NA	Columbia River outfall locations	NA	NA	NA	NA
NA = Not applicable. (a) Value used in reference case analyses. ⁸ * Values are based on the highest (rather than the average) of four values estimated from chloride data. These values are used in reference analyses. ** The value of 1.0 mm/yr provides a conservative value for “aged” evapotranspiration (ET) surface barriers (U.S. DOE. 2004a. Technical Requirements Document for Integrated Disposal Facilities Vadose Zone and Groundwater Revised Analysis. November 23, 2004. Rev. 0. U.S. Department of Energy, Office of River Protection and Richland Operations Office, Richland, Washington.).					

⁸ DOE (U.S. Department of Energy). October 21, 2005. *Technical Guidance Document for Composite Analysis of Low-Level Waste Disposal at the Hanford Site*. DOE/RL-2005-66, U.S. Department of Energy, Richland, Washington. (Unsigned)

4.0 Conclusions and Recommendations

Kincaid et al. (2004) indicated that the System Assessment Capability (SAC) (Kincaid et al. 2000; Bryce et al. 2002; Eslinger 2004a, b, c) would be used for large-scale Hanford assessments. One thousand fifty-two waste sites were identified, for inclusion in Hanford assessments, from the 2,730 WIDS sites and several existing and future storage sites.⁹ Each of these sites are handled as an individual release or storage site whenever inventory and release data permit.

A number of pieces of information, such as the site identification, coordinates, release model, hydro-geologic column (template), remedial action, infiltration class, and the start time and stop time of a simulated problem, are needed throughout the numerical assessment. The ESD keyword file was designed to contain this common information. Generally, if information is needed by one or more module of the suite of codes used by SAC, it is entered in the ESD keyword file. A number of the ESD keywords are generated from general information on the waste site, its operational/disposal history, and its environmental settings (past, current, and future). To facilitate the generation of these ESD keyword input files, a master spreadsheet termed the Geographic and Operational Site Parameters List (GOSPL) was assembled. It can generally be subdivided into three main sections: Site-Specific Parameters, Model-Specific Instructions, and Remediation/Infiltration Assumptions. This report briefly describes each of the key data fields, including the source(s) of data, and provides the inputs to be used for Hanford assessments.

This master spreadsheet was originally developed for the initial assessment conducted using the SAC, as it existed in 2002, to lock down the site-specific location and facility design parameters as well as the key model assumptions for each assessment. The GOSPL has continued to evolve as the site information and/or assessment basis has changed. It is recommended that a restructuring of the GOSPL be developed to facilitate direct retrieval of data from record databases (e.g., WIDS) and to streamline the selection of sites and model assumptions.

⁹ Originally 974 of 2,730 Waste Information Data System (WIDS) sites were identified for inclusion in the large-scale Hanford assessment. Further work has now identified 1,052 sites, with the change being a function of 8 additional waste sites and 70 clean water sites being added to the analysis. The clean water sites have been added to the analysis to ensure consistent handling of all large water sources impacting the groundwater simulation. An additional 25 sites were included to account for offsite transfers, and a single pseudo site was added to represent the rapid movement of waste to the aquifer at the site of the 216-U-1&2 cribs. The total number of sites in the analysis is 1,078.

5.0 References

- BHI. 1998. *Hanford Site Atlas*. BHI-01119, Rev. 1, Bechtel Hanford Inc., Richland, Washington.
- Bryce RW, CT Kincaid, PW Eslinger, and LF Morasch (eds.). 2002. *An Initial Assessment of Hanford Impact Performed with the System Assessment Capability*. PNNL-14027, Pacific Northwest National Laboratory, Richland, Washington.
- Cantrell KJ, RJ Serne, and GV Last. 2003a. *Hanford Contaminant Distribution Coefficient Database and Users Guide*. PNNL-13895, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.
- Cantrell KJ, RJ Serne, and GV Last. 2003b. *Applicability of the Linear Sorption Isotherm Model to Represent Contaminant Transport Processes in Site-Wide Performance Assessments – A White Paper*. CP-17089, Fluor Hanford, Inc., Richland, Washington.
- Comprehensive Environmental Response, Compensation, and Liability Act. 1980. Public Law 96-150, as amended, 94 Stat. 2767, 42 USC 9601 et seq.
- DOE. 2002. *Performance Management Plan for the Accelerated Cleanup of the Hanford Site*. DOE/RL-2002-47, Rev. D, U.S. Department of Energy, Richland, Washington.
- DOE. 2003. *Hanford Site Waste Management Units Report*. DOE/RL-88-30, Rev. 12, U.S. Department of Energy, Richland, Washington
(http://apweb02.rl.gov/rapidweb/phmc/cp/wids/index2.cfm.cfm?FileName=/docs/5/docs/RL88-30_R11.pdf)
- DOE. 2005. *2004 Annual Status Report for the Composite Analysis of Low-Level Disposal in the Central Plateau at the Hanford Site*. DOE/RL-2005-58. U.S. Department of Energy, Richland, Washington.
- DOE Order 435.1. 1999. *Radioactive Waste Management*. U.S. Department of Energy, Washington, D.C. Available on the Internet at <http://www.hanford.gov/wastemgt/doe/psg/pdf/doe0435.pdf>
- Eslinger PW, DW Engel, LH Gerhardstein, CA Lo Presti, TB Miley, WE Nichols, DL Strenge and SK Wurster. 2004a. *User Instructions for the Systems Assessment Capability, Rev. 1, Computer Codes, Volume 1: Inventory, Release, and Transport Modules*. PNNL-14852, Volume 1, Pacific Northwest National Laboratory, Richland, Washington.
- Eslinger PW, TB Miley, C Arimescu, and BA Kanyid. 2004b. *User Instructions for the Systems Assessment Capability, Rev. 1, Computer Codes, Volume 2: Impacts Modules*. PNNL-14852, Volume 2, Pacific Northwest National Laboratory, Richland, Washington.
- Eslinger PW, AL Aaberg, CA Lopresti, TB Miley, WE Nichols, and DL Strenge. 2004c. *User Instructions for the Systems Assessment Capability, Rev. 1, Computer Codes, Volume 3: Utility Codes*. PNNL-14852, Volume 3, Pacific Northwest National Laboratory, Richland, Washington.
- Hajek BF. 1966. *Soil Survey Hanford Project in Benton County, Washington*. BNWL-243, Pacific Northwest National Laboratory, Richland, Washington.

Kincaid CT, MP Bergeron, CR Cole, MD Freshley, NL Hassig, VG Johnson, DI Kaplan, RJ Serne, GP Streile, DL Strenge, PD Thorne, LW Vail, GA Whyatt, and SK Wurstner. 1998. *Composite Analysis for Low-Level Waste Disposal in the 200 Area Plateau of the Hanford Site*. PNNL-11800, Pacific Northwest National Laboratory, Richland, Washington.

Kincaid CT, PW Eslinger, WE Nichols, AL Bunn, RW Bryce, TB Miley, MC Richmond, SF Snyder, and RL Aaberg. 2000. *Groundwater/Vadose Zone Integration Project, System Assessment Capability (Revision 0), Assessment Description, Requirements, Software Design, and Test Plan*. BHI-01365, Draft A, Bechtel Hanford, Inc., Richland, Washington.

Kincaid CT, RW Bryce, and JW Buck. 2004. *Technical Scope and Approach for the 2004 Composite Analysis of Low-Level Waste Disposal at the Hanford Site*. PNNL-14372, Pacific Northwest National Laboratory, Richland, Washington.

Kincaid CT, PW Eslinger, RL Aaberg, TB Miley, IC Nelson, DL Strenge, and JC Evans. 2006. *Inventory Data Package for Hanford Remediation Assessments*. PNNL-15829, Pacific Northwest National Laboratory, Richland, Washington.

Krupka KM, RJ Serne, and DI Kaplan. 2004. *Geochemical Data Package for the 2005 Hanford Integrated Disposal Facility Performance Assessment*. PNNL-13037, Rev. 2., Pacific Northwest National Laboratory, Richland, Washington.

Last GV, EJ Freeman, KJ Cantrell, MJ Fayer, GW Gee, WE Nichols, and BN Bjornstad. 2004. *Vadose Zone Hydrogeology Data Package for the 2004 Composite Analysis*. PNNL-14702, Rev. 0, Pacific Northwest National Laboratory, Richland, Washington.

Last GV, EJ Freeman, KJ Cantrell, MJ Fayer, GW Gee, WE Nichols, BN Bjornstad, and DG Horton. 2006. *Vadose Zone Hydrogeology Data Package for Hanford Assessments*. PNNL-14702, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.

Mann FM. 2003. *Annual Summary of the Immobilized Low-Activity Waste Performance Assessment for 2003, Incorporating the Integrated Disposal Facility Concept*. DOE/ORP-2000-19, Revision 3, U.S. Department of Energy, Richland, Washington.

Maxfield HL. 1979. *Handbook - 200 Areas Waste Sites*. RHO-CD-673, Volumes I, II, and III, Rockwell Hanford Operations, Richland, Washington.

Resource Conservation and Recovery Act. 1976. Public Law 94-580, as amended, 90 Stat. 2795, 42 USC 6901 et seq.

Riley RG and C Lo Presti. 2006. *Release Model Data Package for Hanford Assessments*. PNNL-14760, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.

White, MD and M Oostrom. 1996. *STOMP, Subsurface Transport Over Multiple Phases Theory Guide*. PNNL-11217, Pacific Northwest National Laboratory, Richland, Washington.

Appendix A

Simplified Rendition of the Geographic and Operational Site Parameters List for Waste Sites to be Simulated in Hanford Assessments

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions										Remediation/Recharge Assumptions														
WDS Site ID	WDS Site Code	WDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
9958	100B-Sewage_Sum	100-B sanitary sewage	Sanitary Tilefield	Sewage	1981	1993	565313.06	145004.70			point					9,990	2	Liquid	116	C	4	116C-4	100B-Sewage_Sum	Eb-s	Eb-ds						2006	No Action			Eb-ds	30	2036	Eb-s	
4490	100-B-15	100BC River effluent Pipelines	Radioactive Process Sewer		1944	1972	565460.00	145500.00			line	1438.0	1.4			1973.655	1	River	River	C	NA	River	100-B-15	River	River						2003	RTD			NA	30	NA	NA	
1839	100-B-3		Burial Ground		1952	1952	565290.00	144369.00			point					999.000	1	Soil-Debris	116	C	4	116C-4	100-B-3	Eb-s	Eb-dn						2003	RTD			Eb-ds	30	2033	Eb-s	
1845	100-B-5		Trench		1954	1956	565437.00	144568.00			point	30.5	3.0	3.0		92.903	1	Liquid	116	C	4	116C-4	100-B-5	Eb-s	Eb-dn						2004	RTD			Eb-ds	30	2034	Eb-s	
3912	100-B-8	100-B-8, 100-B Reactor Cooling Water Effluent Underground Pipelines (2 Subsites)	Radioactive Process Sewer		1944	1968	565342.19	144504.94			line/poly					99.900	1	Liquid	100	C	4	100C-4	100-B-8	Eb-s	Eb-dn						2004	RTD			Eb-ds	30	2034	Eb-s	
1844	100-C-3		French Drain		1960	1960	565392.50	143951.97			point				0.6	0.292	1	Liquid	100	C	4	100C-4	100-C-3	Eb-s	Eb-dn						2005	RTD			Eb-ds	30	2035	Eb-s	
3914	100-C-6	100-C-6, 100-C Reactor Cooling Water Effluent Underground Pipelines (3 Subsites)	Radioactive Process Sewer		1952	1969	565387.81	143991.48			line/poly					99.900	1	Liquid	100	C	4	100C-4	100-C-6	Eb-s	Eb-dn						2005	RTD			Eb-ds	30	2035	Eb-s	
9959	100D-Sewage_Sum	100-D sanitary sewage	Sanitary Tilefield	Sewage	1943	1995	573853.81	151519.42			point					9,990	2	Liquid	116	D	4	116D-4	100D-Sewage_Sum	El-s	El-ds						2010	No Action			El-ds	30	2040	El-s	
3620	100-D-23		French Drain		1959	1967	573751.19	151234.19			point					0.999	1	Liquid	116	D	4	116D-4	100-D-23	El-s	El-dn						2009	RTD			El-ds	30	2039	El-s	
3622	100-D-24		French Drain		1959	1967	573745.56	151540.80			point					0.999	1	Liquid	116	D	4	116D-4	100-D-24	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
1907	100-D-29		Unplanned Release		1951	1951	573832.38	152132.50			polygon	69.0	11.0			740.075	1	Liquid	116	D	4	116D-4	100-D-29	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
1668	100-D-3		Burial Ground		1953	1955	573818.56	151513.86			polygon					999.000	1	Soil-Debris	116	D	4	116D-4	100-D-3	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
3732	100-D-32		Burial Ground		1956	1955	573857.38	151432.53			polygon	15.2	15.2			231.040	1	Soil-Debris	116	D	4	116D-4	100-D-32	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
3824	100-D-40		Burial Ground		1953	1955	574039.06	151546.05			polygon			6.1	12.2	116.900	1	Soil-Debris	116	D	4	116D-4	100-D-40	El-s	El-dn						2009	RTD			El-ds	30	2039	El-s	
3827	100-D-42		Burial Ground		1955	1955	573848.81	151522.88			polygon	28.0	13.0			276.548	1	Soil-Debris	116	D	4	116D-4	100-D-42	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
3767	100-D-43		Burial Ground		1953	1955	573852.00	151507.50			polygon	21.3	7.6	4.6		162.580	1	Soil-Debris	116	D	4	116D-4	100-D-43	El-s	El-dn						2009	RTD			El-ds	30	2039	El-s	
3831	100-D-45		Burial Ground		1953	1955	573821.56	151500.77			polygon	24.7	7.3	5.2		180.604	1	Soil-Debris	116	D	4	116D-4	100-D-45	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
3768	100-D-47		Burial Ground		1953	1955	574000.13	151493.63			polygon	57.0	69.5			3961.014	1	Soil-Debris	116	D	4	116D-4	100-D-47	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
3943	100-D-49		Radioactive Process Sewer		1950	1967	573900.00	151800.00			line					99.900	1	Liquid	100	D	4	100D-4	100-D-49	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
4147	100-D-53	117-DR Filter Building	Process Unit/Plant		1960	1960	573753.00	151209.64			polygon	20.7	11.9			246.480	1	Cement	100	D	4	100D-4	100-D-53	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
4411	100-D-59	French Drain at the 183-D Acid Transfer Station	French Drain		1969	1969	573250.80	151552.20			point				0.3	0.159	1	Liquid	116	D	4	116D-4	100-D-59	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
4491	100-D-60	100D River Effluent Pipelines	Radioactive Process Sewer		1949	1969	574000.00	152900.00			line	400	3.8			1528.000	1	River	River	D	NA	River	100-D-60	River	River						2008	RTD			NA	30	NA	NA	
1828	100-D-8	105-DR Process Sewer Outfall Site	Outfall		1949	1968	572625.00	151569.45			polygon					9,990	1	River	River	D	NA	River	100-D-8	River	River						2008	RTD			NA	30	NA	NA	
9960	100F-Sewage_Sum	100-F sanitary sewage	Sanitary Tilefield	Sewage	1943	1994	580826.88	147753.55			point					9,990	2	Liquid	116	F	4	116F-4	100F-Sewage_Sum	Rp-s	Rp-ds						2008	No Action			Rp-ds	30	2038	Rp-s	
1670	100-F-10		French Drain		1944	1965	580490.19	147590.94			point				0.9	0.657	1	Liquid	116	F	4	116F-4	100-F-10	Rp-s	Rp-dn						2003	RTD			Rp-ds	30	2033	Rp-s	
1672	100-F-12																																						

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3636	100-N-59	Radioactively contaminated soil off the northeast corner of 105-NB Building.	Unplanned Release		1995	1995	571322.13	149546.72				0.76	1.37			1.041	1	Liquid	100	N	4	100N-4	100-N-59	Eb-s	Eb-dn						2009	RTD			Eb-ds	30	2039	Eb-s	
3881	100-N-60		French Drain		1964	1987	571320.00	149335.00								0.999	1	Liquid	116	N	4	116N-4	100-N-60	Eb-s	Eb-dn						2010	RTD			Eb-ds	30	2040	Eb-s	
3938	100-N-62		Radioactive Process Sewer		1963	1987	571320.00	149520.00								99.900	1	Liquid	100	N	4	100N-4	100-N-62	Eb-s	Eb-dn						2010	RTD			Eb-ds	30	2040	Eb-s	
3932	100-N-63		Radioactive Process Sewer		1963	1987	571500.00	149500.00								99.900	1	Liquid	100	N	4	100N-4	100-N-63	Eb-s	Eb-dn						2010	RTD			Eb-ds	30	2040	Eb-s	
3936	100-N-64		Radioactive Process Sewer		1963	1987	571050.00	149400.00								99.900	1	Liquid	100	N	4	100N-4	100-N-64	Eb-s	Eb-dn						2010	RTD			Eb-ds	30	2040	Eb-s	
3941	100-N-66		Reactor		1963	1987	571201.44	149489.48			polygon	137.8	141.7	21.3		19526.361	1	Reactor Block/Soil-Debris	100	N	4	100N-4	100-N-66	Eb-s	ABC						2065	RTD			Eb-ds	30	2095	Eb-s	
13	116-B-1		Trench		1950	1968	565538.56	145293.56			polygon	112.8	15.2	4.6		1718.706	1	Liquid	116	C	4	116C-4	116-B-1	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
21	116-B-2		Trench		1946	1946	565413.19	144511.23			point	22.9	3.0	4.6		69.677	1	Liquid	116	C	4	116C-4	116-B-2	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
22	116-B-3		Crib		1951	1952	565356.00	144527.48			polygon	3.0	3.0	6.1		23.226	1	Liquid	116	C	4	116C-4	116-B-3	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
23	116-B-4		French Drain		1957	1968	565368.75	144508.84			polygon			4.572	1.2	6.039	1	Liquid	116	C	4	116C-4	116-B-4	Eb-s	Eb-dn						1997	RTD			Eb-ds	30	2027	Eb-s	
24	116-B-5		Crib		1950	1968	565289.63	144761.75			polygon	27.0	2.4	3.53568		65.902	1	Liquid	116	C	4	116C-4	116-B-5	Eb-s	Eb-dn						1997	RTD			Eb-ds	30	2027	Eb-s	
25	116-B-6A		Crib		1951	1968	565387.56	144370.98			point	3.7	2.4	4.6		23.226	1	Liquid	116	C	4	116C-4	116-B-6A	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
26	116-B-6B		Crib		1950	1953	565401.00	144344.00			point	3.7	2.4	4.6		7.897	1	Liquid	116	C	4	116C-4	116-B-6B	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
27	116-B-7		Outfall		1944	1972	565257.44	145324.63			polygon	8.2	4.3	6.4		36.697	1	River	River	C	NA	River	116-B-7	River	River							2001	RTD			NA	30	NA	NA
29	116-C-1		Trench		1952	1968	565849.06	145284.91	5	(565695.044,145310.112), (565702.596,145264.803), (565974.449,145297.527), (565971.932,145345.353), (565695.044,145310.112)	polygon	152.4	15.2	6.096		2322.576	1	Liquid	116	C	4	116C-4	116-C-1	Eb-s	Eb-dn						1997	RTD			Eb-ds	30	2027	Eb-s	
30	116-C-2A		Crib		1952	1969	565501.75	144030.41			polygon	6.8	4.7	7.9		83.613	1	Liquid	116	C	4	116C-4	116-C-2A	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
32	116-C-2C		Sand Filter		1952	1969	565478.13	144022.31			polygon	12.6	5.5	5.5		34.188	1	Liquid	116	C	4	116C-4	116-C-2C	Eb-s	Eb-dn						1999	RTD			Eb-ds	30	2029	Eb-s	
37	116-D-1A		Trench		1947	1952	573861.25	151588.91			polygon	39.6	3.0	6.4		120.774	1	Liquid	116	D	4	116D-4	116-D-1A	El-s	El-dn						2001	RTD			El-ds	30	2031	El-s	
38	116-D-1B		Trench		1953	1967	573841.31	151613.67			polygon	30.5	3.0	6.4		92.903	1	Liquid	116	D	4	116D-4	116-D-1B	El-s	El-dn						2001	RTD			El-ds	30	2031	El-s	
39	116-D-2		Crib		1950	1956	573819.38	151536.27			polygon	3.0	3.0	6.1		120.774	1	Liquid	116	D	4	116D-4	116-D-2	El-s	El-dn						1999	RTD			El-ds	30	2029	El-s	
42	116-D-5		Outfall		1969	1969	573502.19	152319.13			polygon	18.3	7.3			133.7803781	1	River	River	D	NA	River	116-D-5	River	River							2008	RTD			NA	30	NA	NA
45	116-D-8	100-D Cask Storage Pad	Storage		1946	1975	573695.50	151280.61			polygon					0.999	1	Soil-Debris	100	D	4	100D-4	116-D-8	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
47	116-DR-1%2		Trench		1950	1967	574013.56	152328.47	6	(574063.679,152347.690), (573952.812,152348.922), (573954.044,152291.024), (574003.318,152251.605), (574063.679,152251.605), (574063.679,152347.690)	polygon	137.2	4.6	6.1		4856.228	1	Liquid	116	D	4	116D-4	116-DR-1%2	El-s	El-dn							2000	RTD			El-ds	30	2030	El-s
50	116-DR-3		Trench		1955	1955	573829.56	151207.05			polygon	18.3	12.2	3.0		222.967	1	Liquid	116	D	4	116D-4	116-DR-3	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
51	116-DR-4		Crib		1950	1956	573824.25	151227.66			point	3.0	3.0	6.1																									

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108	118-B-6	111-B Solid Waste Burial Site	Burial Ground		1950	1953	565355.63	144637.66			polygon	4.6	3.0	6.096		13.935	1	Soil-Debris	116	C	4	116C-4	118-B-6	Eb-s	Eb-dn						2006	RTD			Eb-ds	30	2036	Eb-s	
109	118-B-7		Burial Ground		1951	1968	565412.00	144348.20			point	2.1	2.4	2.4		5.950	1	Soil-Debris	116	C	4	116C-4	118-B-7	Eb-s	Eb-dn						2004	RTD			Eb-ds	30	2034	Eb-s	
110	118-B-8		Reactor		1944	1968	565288.19	144512.22			polygon					3948.379	1	Reactor Block/Soil-Debris	100	C	4	100C-4	118-B-8	Eb-s	ABC						2065	RTD			Eb-ds	30	2095	Eb-s	
111	118-B-9		Storage		1950	1955	565293.19	144630.98			polygon	7.3	3.7	3.048		26.756	1	Soil-Debris	100	C	4	100C-4	118-B-9	Eb-s	Eb-dn						2004	RTD			Eb-ds	30	2034	Eb-s	
112	118-C-1		Burial Ground		1953	1969	565575.44	143911.34			polygon	155.4	121.9	6.1		18952.220	1	Soil-Debris	116	C	4	116C-4	118-C-1	Eb-s	Eb-dn						2006	RTD			Eb-ds	30	2036	Eb-s	
114	118-C-3		Reactor		1952	1969	565374.25	144004.13			polygon					6038.698	1	Reactor Block/Soil-Debris	100	C	4	100C-4	118-C-3	Eb-s	ABC						2065	RTD			Eb-ds	30	2095	Eb-s	
115	118-C-4	105-C Horizontal contrl cave	Storage		1950	1969	565397.94	143898.48			polygon	12.2	7.6	1.2		92.888	1	Soil-Debris	100	C	4	100C-4	118-C-4	Eb-s	Eb-dn						2006	RTD			Eb-ds	30	2036	Eb-s	
116	118-D-1		Burial Ground		1944	1967	573708.88	150968.16			polygon	137.2	114.3	6.1		15677.388	1	Soil-Debris	116	D	4	116D-4	118-D-1	El-s	El-dn						2007	RTD			El-ds	30	2037	El-s	
117	118-D-2		Burial Ground		1949	1970	572949.06	150919.08			polygon	304.8	109.7	6.1		33445.095	1	Soil-Debris	116	D	4	116D-4	118-D-2	El-s	El-dn						2008	RTD			El-ds	30	2038	El-s	
118	118-D-3		Burial Ground		1956	1973	573973.81	151317.53			polygon	304.8	76.2	6.1		23225.761	1	Soil-Debris	116	D	4	116D-4	118-D-3	El-s	El-dn						2008	RTD			El-ds	30	2038	El-s	
119	118-D-4		Burial Ground		1953	1967	574093.75	151481.55			polygon	182.9	61			11148.365	1	Soil-Debris	116	D	4	116D-4	118-D-4	El-s	El-dn						2009	RTD			El-ds	30	2039	El-s	
120	118-D-5		Burial Ground		1954	1954	573784.44	151199.86			polygon			3.0		148.645	1	Soil-Debris	116	D	4	116D-4	118-D-5	El-s	El-dn						2009	RTD			El-ds	30	2039	El-s	
121	118-D-6		Reactor		1944	1967	573763.44	151590.52			polygon					3948.379	1	Reactor Block/Soil-Debris	100	D	4	100D-4	118-D-6	El-s	ABC						2065	RTD			El-ds	30	2095	El-s	
122	118-DR-1		Burial Ground		1963	1964	573771.44	151102.48			polygon	38.1	22.9	8.8		870.966	1	Soil-Debris	116	D	4	116D-4	118-DR-1	El-s	El-dn						2010	RTD			El-ds	30	2040	El-s	
123	118-DR-2		Reactor		1950	1964	573771.69	151293.30			polygon					3948.379	1	Reactor Block/Soil-Debris	100	D	4	100D-4	118-DR-2	El-s	ABC						2065	RTD			El-ds	30	2095	El-s	
124	118-F-1		Burial Ground		1954	1965	580146.06	147239.50			polygon	182.9	152.4	6.1		2787.091	1	Soil-Debris	116	F	4	116F-4	118-F-1	Rp-s	Rp-dn						2005	RTD			Rp-ds	30	2035	Rp-s	
125	118-F-2		Burial Ground		1945	1965	579919.44	147512.48			polygon	112.2	99.4	6.1		11148.365	1	Soil-Debris	116	F	4	116F-4	118-F-2	Rp-s	Rp-dn						2006	RTD			Rp-ds	30	2036	Rp-s	
126	118-F-3		Burial Ground		1952	1952	580328.44	147495.78			polygon	53.3	15.2	4.6		812.902	1	Soil-Debris	116	F	4	116F-4	118-F-3	Rp-s	Rp-dn						2006	RTD			Rp-ds	30	2036	Rp-s	
127	118-F-4		Crib		1949	1949	580303.13	147533.02			point	3	3	4.6		9.290	1	Liquid/Soil-Debris	116	F	4	116F-4	118-F-4	Rp-s	Rp-dn						2007	RTD			Rp-ds	30	2037	Rp-s	
128	118-F-5		Burial Ground		1954	1975	581341.81	147459.33			polygon	152.4	45.7	4.6		6967.728	1	Soil-Debris	116	F	4	116F-4	118-F-5	Rp-s	Rp-dn						2007	RTD			Rp-ds	30	2037	Rp-s	
129	118-F-6		Burial Ground		1965	1973	580130.38	147112.30			polygon	121.9	61	5.5		7432.243	1	Soil-Debris	116	F	4	116F-4	118-F-6	Rp-s	Rp-dn						2008	RTD			Rp-ds	30	2038	Rp-s	
130	118-F-7	100-F Miscellaneous Hardware Storage Vault, Concrete Box	Storage		1945	1965	580444.50	147501.94			polygon	4.88	2.44	2.44		11.907	1	Soil-Debris	100	F	4	100F-4	118-F-7	Rp-s	ABC						2008	RTD			Rp-ds	30	2038	Rp-s	
131	118-F-8		Reactor		1944	1965	580432.69	147600.23			polygon					4112.500	1	Reactor Block/Soil-Debris	100	F	4	100F-4	118-F-8	Rp-s	ABC						2065	RTD			Rp-ds	30	2095	Rp-s	
133	118-H-1		Burial Ground		1949	1965	577566.13	152136.95			polygon	213.4	106.7	6.096		24387.048092	1	Soil-Debris	116	H	4	116H-4	118-H-1	Ba-s	Ba-dn						2007	RTD			Ba-ds	30	2037	Ba-s	
134	118-H-2		Burial Ground		1955	1965	577338.50	152527.95			polygon	42.7	15.2			650.321	1	Soil-Debris	116	H	4	116H-4	118-H-2	Ba-s	Ba-dn						2008	RTD			Ba-ds	30	2038	Ba-s	
135	118-H-3		Burial Ground																																				

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4483	200-E-127	PUREX Cooling Water Line, Pipeline From PUREX to Gable and B-Ponds	Radioactive Process Sewer		1969	1969	575535.49	138462.92				3804	1			3804.000	1	Liquid	216	B	4	216B-4	200-E-127	Ba-s	Ba-dn						2016	No Action			Ba-ds	30	2046	Ba-s	
4501	200-E-128	Radioactive Contamination "Hot Spot" Under Gravel Road	Unplanned Release		1969	1969	574077.56	137018.16							0.15	0.018	1	Soil-Debris	200	B	4	200B-4	200-E-128	Ba-s	Ba-dn						2027	RTD			Ba-ds	30	2057	Ba-s	
4502	200-E-129	Stabilized Area on East Side of B Plant Railroad Cut	Unplanned Release		1969	1969	573638.29	136770.90				6.1	3.66			22.326	1	Soil-Debris	200	B	4	200B-4	200-E-129	Rp-s	Rp-dn						2022	RTD			Rp-ds	30	2052	Rp-s	
4503	200-E-130	Stabilized Area on West Side of B Plant Chemical Spur	Unplanned Release		1969	1969	573521.51	136667.80			polygon					0.999	1	Soil-Debris	200	B	4	200B-4	200-E-130	Rp-s	G-dn						2022	RTD			Rp-ds	30	2052	Rp-s	
4514	200-E-136	202-A TSD, PUREX	Process Unit/Plant		1956	1990	575113.52	135641.83			polygon	306.0	30.0	12		9180.000	1	Cement/Liquid	200	A	4	200A-4	200-E-136	Ba-s	ABC						2021	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
4531	200-E-137	291-B Exhaust Stack, 291-B-1	Stack		1944	1998	573600.00	136380.00			point			61	4.3	14.522	1	Soil-Debris	200	B	4	200B-4	200-E-137	Ba-s	ABC						2022	RTD / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
4532	200-E-138	296-B-1 exhaust stack	Stack	Process Effluent	1969	1969	573480.00	136440.00			point					0.999	1	Atmosphere	200	B	4	200B-4	200-E-138	Rp-s	Rp-dn						2022	RTD / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
3653	200-E-17	200 Area Liquid Effluent Retention Facility (LERF)	Surface Impoundment		1994	1994	575845.36	137131.37			polygon	102.718	69.19			7106.990	1	Liquid	200	E	4	2.00E-02	200-E-17	Ba-s	Ba-dn						2032	D&D			Ba-ds	30	2062	Ba-s	
3793	200-E-25	272-BB French Drain, Insulation Shop French Drain, Miscellaneous Stream #659	French Drain		1971	1991	573511.86	136550.98							0.6	0.292	1	Liquid	216	B	4	216B-4	200-E-25	Rp-s	Rp-dn						2022	RTD			Rp-ds	30	2052	Rp-s	
3871	200-E-28		Unplanned Release		1990	1990	573395.69	136446.88			point			9.1		9.140	1	Liquid	200	B	4	200B-4	200-E-28	El-s	El-dn						2022	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
3904	200-E-30		Sand Filter		1948	1997	573630.38	136389.02			polygon	33.5	15.2	4.9		510.967	1	Liquid/Soil-Debris	216	B	4	216B-4	200-E-30	El-s	El-dn						2022	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1726	200-E-4		French Drain		1958	1959	574450.19	136348.50			point				1.2	1.167	1	Liquid	216	A	4	216A-4	200-E-4	Rp-s	Rp-dn						2017	RTD			Rp-ds	30	2047	Rp-s	
3973	200-E-41	Stabilized Hot Semi-works Area, UN-216-E-38, Strontium Semi-Works Stabilized Area	Unplanned Release		1969	1969	574622.25	136331.13			polygon	150.0	150.0			22500.000	1	Soil-Debris/Liquid	200	A	4	200A-4	200-E-41	Rp-s	Rp-dn						2017	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s	
4166	200-E-44	PUREX Railroad Cut	Unplanned Release		1969	1969	575254.12	135762.75			polygon					9.990	1	Soil-Debris	200	A	4	200A-4	200-E-44	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
1945	200-E-5	200-E-5, 2607-E2, 2607-E2 Septic Tank & Tile Field	Septic Tank	Sanitary Sewage	1948	1997	573799.50	134903.40			Polygon					9.990	2	Liquid	216	A	4	216A-4	200-E-5	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
4264	200-E-54	Liquid Release to the Environment from PUREX Deep Filter Bed#1	Unplanned Release		1991	1991	575137.25	135585.36			point					9.990	1	Liquid	200	A	4	200A-4	200-E-54	Rp-s	Rp-dn						2021	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
4269	200-E-55	200-E-55, Effluent Drain East of 291-B Sand Filter, Miscellaneous Stream #322	French Drain		1969	1969	573650.00	136388.00			Polygon			0.9144	1.8288	2.627	1	Liquid	200	B	4	200B-4	200-E-55	Rp-s	Rp-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
4272	200-E-56	241-C Waste Line Leak adjacent to 201-C, Waste Line Leak #1	Unplanned Release		1949	1957	574609.38	136349.23			point					9.990	1	Liquid	200	A	4	200A-4	200-E-56	Rp-s	Rp-dn						2017	ABAR2E17 w/ Semi Wks	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s	
4273	200-E-57	200-E-57, 241-C Waste Line Leak east of 201-C, Waste Line Leak #2	Unplanned Release		1957	1957	574657.31	136337.25			point					0.999	1	Liquid	200	A	4	200A-4	200-E-57	Rp-s	Rp-dn						2017	RTD			Rp-ds	30	2047	Rp-s	
4288	200-E-60	200-E-60, 241-BY-ITS2-TK-2, 241-BY-ITS2 Heater Flush Tank, IMUST, Inactive Miscellaneous Underground Storage Tank	Storage Tank		1977	1977	573569.38	137517.95			point	12.8			0.30	0.071	1	Liquid	200	B	4	200B-4	200-E-60	El-s	G-dn						2026	RTD/ABAR w/ B-BX-BY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2526	Wa-s	
4292	200-E-61	200-E-61, 202A Building Stormwater Runoff, Miscellaneous Stream #467	Injection/Reverse Well	Stormwater Runoff	1955	2001	575022.18	135683.83			point				0.6	0.292	1	Liquid	216	A	4	216A-4	200-E-61	Rp-s	Rp-dn						2021	ABAR2E10/PUREX	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
4294	200-E-62	200-E-62, 202A Building Steam Condensate, Miscellaneous Stream #71, Injection Well (Z)	Injection/Reverse Well	Steam Condensate	1955	1996	575099.00	135796.00			point					0.999	1	Liquid	216	A	4	216A-4	200-E-62	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4295	200-E-63	200-E-63, Line #8801 Steam Condensate, Miscellaneous Stream #72, Injection Well (AA)	Injection/Reverse Well	Steam Condensate	1955	1996	575075.00	135714.00			point				1.2	1.169	1	Liquid	216	A	4	216A-4	200-E-63	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4296	200-E-64	200-E-64, Line #8801 Steam Condensate, Miscellaneous Stream #69, Injection Well (W)	Injection/Reverse Well	Steam Condensate	1955	1996	575135.00	135663.00			point				0.9	0.657	1	Liquid	216	A	4	216A-4	200-E-64	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4297	200-E-65	200-E-65, 202A Building Steam Condensate, Miscellaneous Stream #466 Injection Well (R)	Injection/Reverse Well	Steam Condensate	1955	1996	575275.00	135620.00			point				1.2	1.131	1	Liquid	216	A	4	216A-4	200-E-65	Ba-s	Ba-dn						2021	No Action			Ba-ds	30	2051	Ba-s	
4299	200-E-67	202A Building Stem Condensate, Miscellaneous Stream #494	Injection/Reverse Well	Steam Condensate	1996	1996	575141.88	135614.28			point					9.990	1	Liquid	216	A	4	216A-4	200-E-67	Ba-s	Ba-dn						2021</								

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions										Remediation/Recharge Assumptions														
WIDS Site ID	WIDS Site Code	WIDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
4308	200-E-76	200-E-76, Line #8801 Steam Condensate, Miscellaneous Stream #67, Injection Well (U)	Injection/Reverse Well	Steam Condensate	1955	1997	575284.00	135903.00			point				1.5	1.767	1	Liquid	216	A	4	216A-4	200-E-76	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4309	200-E-77	200-E-77, Line #8801 Steam Condensate, Miscellaneous Stream #65, Injection Well (S)	Injection/Reverse Well	Steam Condensate	1955	1997	575274.00	135645.00			point				1.2	1.131	1	Liquid	216	A	4	216A-4	200-E-77	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4310	200-E-78	200-E-78, Line #8801 Steam Condensate, Miscellaneous Stream #70, Injection Well (Y)	Injection/Reverse Well	Steam Condensate	1955	1996	575110.00	135736.00			point					0.999	1	Liquid	200	A	4	200A-4	200-E-78	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4311	200-E-79	200-E-79, Line #8801 Steam Condensate, Miscellaneous Stream #66, Injection Well (T)	Injection/Reverse Well	Steam Condensate	1955	1997	575284.00	135658.00			point				0.9	0.636	1	Liquid	216	A	4	216A-4	200-E-79	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4312	200-E-80	200-E-80, Line #8801 Steam Condensate, Miscellaneous Stream #68, Injection Well (V)	Injection/Reverse Well	Steam Condensate	1955	1996	575222.00	135656.00			point					0.999	1	Liquid	216	A	4	216A-4	200-E-80	Rp-s	Rp-dn						2021	No Action			Rp-ds	30	2051	Rp-s	
4313	200-E-81	200-E-81, MO-035 Facility Water Valve, Miscellaneous Stream #533	Injection/Reverse Well	Steam Condensate	1955	1996	575007.00	135717.00			point					0.999	1	Liquid	216	A	4	216A-4	200-E-81	Rp-s	Rp-dn	1997	Surface Stabilization	G-dn			2021	No Action			Rp-ds	30	2051	Rp-s	
4314	200-E-82	200-E-82, Steam Trap 2P, Yard-MSS-TRP-040, Miscellaneous Stream #115	Injection/Reverse Well	Steam Condensate	1997	1997	575052.75	135814.66			point			1.52	1.37	1.478	1	Liquid	216	A	4	216A-4	200-E-82	Rp-s	Rp-dn						2024	No Action			Rp-ds	30	2054	Rp-s	
4323	200-E-84	200-E-84, 202A Building Steam Condensate, Miscellaneous Stream #58, Injection Well (C)	Injection/Reverse Well	Steam Condensate	1955	1996	574959.00	135624.00			point				0.90	0.636	1	Liquid	216	A	4	216A-4	200-E-84	Ba-s	Ba-dn						2021	No Action			Ba-ds	30	2051	Ba-s	
4324	200-E-85	202A Building Pump Seal Water, Miscellaneous Stream #459	Injection/Reverse Well	Water	1969	1969	574958.50	135613.69			point					0.999	1	Liquid	216	A	4	216A-4	200-E-85	Ba-s	Ba-dn						2021	ABAR2E10/PUREX	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
4348	200-E-88	200-E-88, B Plant Yard Steam Condensate, Miscellaneous Stream #3	Injection/Reverse Well	Steam Condensate	1945	1997	573643.00	136368.00			point					0.999	1	Liquid	216	B	4	216B-4	200-E-88	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4349	200-E-89	200-E-89, B Plant Yard Steam Condensate, Miscellaneous Stream #4	Injection/Reverse Well	Steam Condensate	1945	1997	573557.00	136368.00			point				0.9	0.636	1	Liquid	216	B	4	216B-4	200-E-89	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
3662	200-E-9	200-E-9, 2607-EN, 2727-E Septic System, 2607-EN Septic Tank/Pump Station	Septic Tank	Sanitary Sewage	1994	2000	572715.68	135634.98			Polygon	30.5	3.7			111.484	2	Liquid	216	A	4	216A-4	200-E-9	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
4350	200-E-90	200-E-90, B Plant Yard Steam Condensate, Miscellaneous Stream #5	Injection/Reverse Well	Steam Condensate	1945	1997	573412.00	136368.00			point				1.0	0.785	1	Liquid	216	B	4	216B-4	200-E-90	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4351	200-E-91	200-E-91, B Plant Yard Steam Condensate, Miscellaneous Stream #6	Injection/Reverse Well	Steam Condensate	1945	1997	573358.38	136368.30			point				0.6	0.283	1	Liquid	216	B	4	216B-4	200-E-91	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4352	200-E-92	200-E-92, B Plant Yard Steam Condensate, Miscellaneous Stream #7	Injection/Reverse Well	Steam Condensate	1945	1997	573330.19	136401.39			point				0.8	0.442	1	Liquid	216	B	4	216B-4	200-E-92	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4353	200-E-93	200-E-93, B Plant Yard Steam Condensate, Miscellaneous Stream #8	Injection/Reverse Well	Steam Condensate	1945	1997	573556.50	136375.53			point				0.9	0.636	1	Liquid	216	B	4	216B-4	200-E-93	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4354	200-E-94	200-E-94, B Plant Yard Steam Condensate, Miscellaneous Stream #9	Injection/Reverse Well	Steam Condensate	1945	1997	573277.50	136377.50			point					0.999	1	Liquid	216	B	4	216B-4	200-E-94	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4355	200-E-95	200-E-95, 222B Steam Condensate, Miscellaneous Stream #308	French Drain	Steam Condensate	1945	1997	573433.30	136280.10			polygon				0.4	0.126	1	Liquid	216	B	4	216B-4	200-E-95	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4357	200-E-97	200-E-97, 212B Building Steam Condensate, Miscellaneous Stream #470	French Drain	Steam Condensate	1945	1997	573388.70	136446.23			polygon				0.4	0.126	1	Liquid	216	B	4	216B-4	200-E-97	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4358	200-E-98	200-E-98, 271B Building Ice Machine Overflow, Miscellaneous Stream #490	French Drain	Water	1945	1997	573467.20	136477.60			polygon					0.999	1	Liquid	216	B	4	216B-4	200-E-98	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4359	200-E-99	200-E-99, Steam Trap 2P-Yard-MSS-TRP-017, Miscellaneous Stream #570	French Drain	Steam Condensate	1945	1998	573715.00	136369.00			polygon					0.999	1	Liquid	200	B	4	200B-4	200-E-99	Rp-s	Rp-dn						2022	No Action			Rp-ds	30	2052	Rp-s	
4543	200-W-104	200-W-104, 2714-U Building, UO3 Storage Warehouse	Storage		1969	1969	567490.00	135220.00								0.999	1	Soil-Debris	200	S	4	200S-4	200-W-104	Rp-s	ABC						2016	RTD			Rp-ds	30	2046	Rp-s	
3652	200-W-15	200-W-15, S-Plant Project W-087 Hexone Discovery	Unplanned Release	Chemical Release	1969	1969	567305.88	133933.69			polygon	12.2	2.4			29.729	1	Soil-Debris	200	S	4	200S-4	200-W-15	Rp-s	Rp-dn						2030	ABAR w/ REDOX	ET-Cap	RCRA C-18	RCRA C-18	500	2530	Wa-s	
3726	200-W-20	200-W-20, T Plant Complex	Process Unit/Plant	Process Effluent	1969	1969	567600.00	136800.00								999.000	1	Liquid	200																				

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WIDS Site ID	WIDS Site Code	WIDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
4476	200-W-90	Underground Radioactive Material Areas posted along 23rd Street in 200 West Area	Unplanned Release	Soil	1969	1969	566419.25	136621.70			polygon	6.1	3.05			18.581	1	Soil-Debris	200	T	4	200T-4	200-W-90	Rp-s	Rp-dn						2031	ABAR2W03/T WMA	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s	
292	200-W-PP		Pond		1984	1995	567112.06	135927.22			polygon	182.9	15.2	6.1		2787.091	2	Liquid	200	S	4	200S-4	200-W-PP	Rp-s	Rp-dn						2033	IBAR	ET-Cap	RCRA C-113	RCRA C-113	500	2533	Wa-s	
297	201-C	201-C Process Building	Process Unit/Plant	Chemicals/Equipment	1949	1967	574591.78	136348.45			polygon	42.67	24.38			1040.514	1	Cement/Liquid	200	A	4	200A-4	201-C	Rp-s	ABC						2017	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s	
308	202-A-WS-1	202-A-WS-1, PUREX Waste Piles	Storage	Equipment	1956	1956	575159.13	135629.47			point					9.990	1	Soil-Debris	200	A	4	200A-4	202-A-WS-1	Rp-s	ABC						2021	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
309	202-S	203-S/204-S/205-S Stabilized Area, 203-S Uranyl Nitrate Hexahydrate Tank Farm, 204-S Tank Farm & Pumphouse, 205-S Process Vault & Chemical Makeup Building, 205-S Uranyl Nitrate Hexahydrate Processing Facility	Process Unit/Plant		1952	1967	567379.13	133972.78			polygon	142.3	49.1	25.0		6985.101	1	Cement	200	S	4	200S-4	202-S	Rp-s	ABC						2030	D&D / ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2530	Wa-s	
310	203-S, %, 205-S		Process Unit/Plant		1953	1965	567287.97	134069.07			Polygon	84.00	68.00			5712.000	1	Cement	200	S	4	200S-4	203-S, %, 205-S	Rp-s	ABC						2030	RTD			Rp-ds	30	2060	Rp-s	
312	205-A	205-A Silica Gel Facility	Process Unit/Plant		1956	1976	575088.69	135746.95			point	3.66	3.05	2.44		11.148	1	Cement/Liquid	200	A	4	200A-4	205-A	Rp-s	ABC						2021	D&D			Rp-ds	30	2051	Rp-s	
1642	207-A-NORTH	207-A-NORTH 207-A-SOUTH 207-B 207-S 207-T, T Plant Retention Basin, 207-T, 207-T Retention Basin 207-U 207-Z 209-E-WS-2 2101-M-POND 212-N 212-P 212-R 213-W	Retention Basin		1977	1989	575568.25	136023.98			polygon	16.8	3.0	2.1		51.097	1	Liquid	200	A	4	200A-4	207-A-NORTH	Rp-s	Rp-dn						2016	No Action			Rp-ds	30	2046	Rp-s	
1643	207-A-SOUTH		Retention Basin		1977	1989	575568.38	135975.22			polygon	16.8	3.0	2.1		51.097	1	Liquid	200	A	4	200A-4	207-A-SOUTH	Rp-s	Rp-dn						2016	No Action			Rp-ds	30	2046	Rp-s	
314	207-B		Retention Basin		1945	1997	573876.81	137079.11			polygon	75	37.5	2.0		2811.060	1	Liquid	200	B	4	200B-4	207-B	El-s	El-dn						2027	RTD			El-ds	30	2057	El-s	
315	207-S		Retention Basin		1951	1954	566978.44	133891.94			polygon	39.6	39.6			1570.061	1	Liquid	200	S	4	200S-4	207-S	Rp-s	Rp-dn						2016	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s	
317	207-T		Retention Basin		1944	1995	566969.06	136705.03			polygon	75.0	37.5			2811.060	1	Liquid	200	T	4	200T-4	207-T	Rp-s	Rp-dn						2031	RTD			Rp-ds	30	2061	Rp-s	
318	207-U		Retention Basin		1952	1994	566973.25	135044.02			polygon	75.0	37.5	2.0		2832.800	1	Liquid	200	S	4	200S-4	207-U	Rp-s	Rp-dn						2017	No Action			Rp-ds	30	2047	Rp-s	
319	207-Z		Retention Basin		1949	1959	566574.69	135522.58			polygon	15.2	12.2	3.0		185.806	1	Liquid	200	S	4	200S-4	207-Z	Rp-s	Rp-dn						2017	ABAR2W07/PFP	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s	
321	209-E-WS-2		French Drain		1960	1989	574467.06	136308.94			polygon	1	1.67		1.2	1.167	1	Liquid	216	A	4	216A-4	209-E-WS-2	Rp-s	Rp-dn						2017	RTD			Rp-ds	30	2047	Rp-s	
322	2101-M-POND		Storage		1953	1995	573374.56	135289.52			point		147.8	3.0			450.580	1	Liquid	200	A	4	200A-4	2101-M-POND	Rp-s	Rp-dn						2024	RTD			Rp-ds	30	2054	Rp-s
324	212-N		Storage		1945	1945	569874.00	140328.19			polygon					555.000	1	Soil-Debris	200	I	4	200I-4	212-N	El-s	ABC						2016	D&D			El-ds	30	2046	El-s	
325	212-P	Storage		1945	1945	570678.50	140330.02			polygon					555.000	1	Soil-Debris	200	I	4	200I-4	212-P	El-s	ABC						2016	D&D			El-ds	30	2046	El-s		
326	212-R	Storage		1945	1952	571483.38	140331.81			polygon					555.000	1	Soil-Debris	200	I	4	200I-4	212-R	El-s	ABC						2016	D&D			El-ds	30	2046	El-s		
1644	213-W	213-W, 213-W Compactor Facility	Process Unit/Plant		1988	1988	565897.25	135829.48			polygon	12.5	5.8			72.371	1	Liquid	200	T	4	200T-4	213-W	Rp-s	Rp-dn						2023	D&D			Rp-ds	30	2053	Rp-s	
330	216-A-1		Crib		1955	1955	575521.69	136081.78			polygon	9.1	9.1	4.6		83.613	1	Liquid	216	A	4	216A-4	216-A-1	Rp-s	Rp-dn						2016	ABAR2E08	ET-Cap	RCRA C-113	RCRA C-113	500	2516	Wa-s	
331	216-A-10		Crib		1956	1987	574978.25	135439.94	5	(574956.625,135499.088), (574992.676,135499.088), (574992.676,135343.254), (574956.625,135343.254), (574956.625,135499.088)	polygon	83.8	13.7			1149.675	1	Liquid	216	A	4	216A-4	216-A-10	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-112	RCRA C-112	500	2521	Wa-s	
332	216-A-11		French Drain		1956	1972	575248.63	135608.69			point			9.1	0.8	0.456	1	Liquid	216	A	4	216A-4	216-A-11	Rp-s	Rp-dn						2021	ABAR2E10/PUREX	ET-Cap	RCRA C-18	RCRA C-18	500	2521	Wa-s	
333	216-A-12		French Drain		1955	1972	575110.56	135608.30			point			5.5	0.8	0.456	1	Liquid	216	A	4	216A-4	216-A-12	Rp-s	Rp-dn						2021	ABAR2E10/PUREX	ET-Cap	RCRA					

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363	216-A-37-1		Crib		1977	1989	575842.13	135678.91			polygon	213.4	3.0			1011.714	1	Liquid	216	A	4	216A-4	216-A-37-1	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2521	Wa-s	
364	216-A-37-2		Crib		1983	1995	576170.38	135525.66			polygon	426.7	3.0			1300.643	1	Liquid	216	A	4	216A-4	216-A-37-2	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2521	Wa-s	
366	216-A-39		Crib		1966	1966	575431.50	136253.80			polygon	28.0	22.0			616.000	1	Liquid	216	A	4	216A-4	216-A-39	Rp-s	Rp-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	RCRA C-112	RCRA C-112	500	2534	Wa-s	
367	216-A-4		Crib		1955	1958	575216.81	135528.66			polygon	6.1	6.1	7.9		37.161	1	Liquid	216	A	4	216A-4	216-A-4	Rp-s	Rp-dn						2021	ABAR2E10/PUREX	ET-Cap	RCRA C-111	RCRA C-111	500	2521	Wa-s	
368	216-A-40		Retention Basin		1968	1979	575172.13	136187.17			polygon	121.9	6.1	3.7		743.224	1	Liquid	216	A	4	216A-4	216-A-40	Rp-s	Rp-dn						2021	RTD			Rp-ds	30	2051	Rp-s	
369	216-A-41		Crib		1968	1974	575237.44	136108.48			polygon	3.0	3.0			40.599	1	Liquid	216	A	4	216A-4	216-A-41	Rp-s	Rp-dn						2021	RTD			Rp-ds	30	2051	Rp-s	
370	216-A-42		Retention Basin		1978	1997	575681.63	135694.72			polygon	104.2	9.1	6.1		953.185	1	Liquid	216	A	4	216A-4	216-A-42	Rp-s	Rp-dn						2021	RTD			Rp-ds	30	2051	Rp-s	
371	216-A-45		Crib		1987	1991	574908.25	135161.34			polygon	94.5	18.3			1727.997	1	Liquid	216	A	4	216A-4	216-A-45	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-113	RCRA C-113	500	2521	Wa-s	
372	216-A-5		Crib		1955	1966	575047.50	135492.72			polygon	10.7	10.7	8.8		113.806	1	Liquid	216	A	4	216A-4	216-A-5	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2521	Wa-s	
374	216-A-6		Crib		1955	1970	575591.44	135648.02	5	(575544.670,135616.334), (575598.686,135644.659), (575615.484,135616.663), (575661.797,135588.338), (575544.670,135616.334)	polygon	30.5	30.5				929.030	1	Liquid	216	A	4	216A-4	216-A-6	Rp-s	Rp-dn						2021	IBAR	ET-Cap	RCRA C-113	RCRA C-113	500	2521	Wa-s
375	216-A-7		Crib		1955	1966	575506.19	136043.55			polygon	3.0	3.0	4.9		9.290	1	Liquid	216	A	4	216A-4	216-A-7	Rp-s	Rp-dn						2016	ABAR2E08	ET-Cap	RCRA C-113	RCRA C-113	500	2516	Wa-s	
376	216-A-8		Crib		1955	1991	575779.69	136194.02			polygon	259.1	6.1			1579.352	1	Liquid	216	A	4	216A-4	216-A-8	Rp-s	Rp-dn						2016	IBAR	ET-Cap	RCRA C-113	RCRA C-113	500	2516	Wa-s	
377	216-A-9		Crib		1956	1969	575108.94	136024.95			polygon	128.0	6.1			780.386	1	Liquid	216	A	4	216A-4	216-A-9	Rp-s	Rp-dn						2021	RTD			Rp-ds	30	2051	Rp-s	
378	216-B-10A		Crib		1949	1952	573473.44	136339.66			point	4.3	4.3			809.371	1	Liquid	216	B	4	216B-4	216-B-10A	El-s	El-dn						2022	RTD			El-ds	30	2052	El-s	
379	216-B-10B		Crib		1949	1973	573450.56	136339.58			point	4.3	4.3			18.209	1	Liquid	216	B	4	216B-4	216-B-10B	El-s	El-dn						2022	RTD			El-ds	30	2052	El-s	
380	216-B-11A%B		French Drain	Low in salt and neutral to basic.	1951	1954	573851.00	137419.30			point	9.1			2.4	4.670	1	Liquid	216	B	4	216B-4	216-B-11A%B	El-s	El-dn						2026	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-18	RCRA C-18	500	2526	Wa-s	
381	216-B-12		Crib		1952	1973	573128.00	136600.14			polygon	48.8	15.2			743.224	1	Liquid	216	B	4	216B-4	216-B-12	El-s	El-dn						2022	IBAR	ET-Cap	Hanford-113	Hanford-113	500	2522	Wa-s	
382	216-B-13		French Drain		1945	1976	573571.50	136392.30			point	1.6		5.5	1.2	1.167	1	Liquid	216	B	4	216B-4	216-B-13	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
383	216-B-14		Crib		1956	1956	573649.25	134404.89			point	24.4	24.4	4.0		594.579	1	Liquid	216	A_BC_E	3	216A_BC_E-3	216-B-14	Rp-s	Rp-dn	1981	ABAR	Rp-ds			2009	ABAR2E06	ET-Cap	RCRA C-115	RCRA C-115	500	2509	Wa-s	
384	216-B-15		Crib		1956	1957	573607.13	134432.20			point	24.4	24.4	4.0		594.579	1	Liquid	216	A_BC_E	3	216A_BC_E-3	216-B-15	Rp-s	Rp-dn	1981	ABAR	Rp-ds			2009	ABAR2E06	ET-Cap	RCRA C-115	RCRA C-115	500	2509	Wa-s	
385	216-B-16		Crib		1956	1956	573624.94	134365.50			point	24.4	24.4	4.0		594.579	1	Liquid	216	A_BC_E	3	216A_BC_E-3	216-B-16	Rp-s	Rp-dn	1981	ABAR	Rp-ds			2009	ABAR2E06	ET-Cap	RCRA C-115	RCRA C-115	500	2509	Wa-s	
386	216-B-17		Crib		1956	1956	573582.81	134389.77			point	24.4	24.4	4.0		594.579	1	Liquid	216	A_BC_W	3	216A_BC_W-3	216-B-17	Rp-s	Rp-dn	1981	ABAR	Rp-ds			2009	ABAR2E06	ET-Cap	RCRA C-115	RCRA C-115	500	2509	Wa-s	
387	216-B-18		Crib		1956	1956	573600.69	134323.06			point	24.4	24.4	4.0		594.579	1	Liquid	216	A_BC_W	3	216A_BC_W-3	216-B-18	Rp-s	Rp-dn	1981	ABAR	Rp-ds			2009	ABAR2E06	ET-Cap	RCRA C-115	RCRA C-115	500	2509	Wa-s	
388	216-B-19		Crib		1957	1957	573558.56	134347.33			point	24.4	24.4	4.0		594.579	1	Liquid																					

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419	216-B-4		Injection/Reverse Well		1945	1949	573554.06	136391.08			point	33.5		33.0	0.2	0.033	1	Liquid	266	B	4	266B-4	216-B-4	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
420	216-B-40		Trench		1954	1954	573440.00	137403.00			line	76.8	3.0			234.116	1	Liquid	216	B	2	216B-2	216-B-40	El-s	El-dn						2026	ABAR2E16	ET-Cap	Hanford-116	Hanford-116	500	2526	Wa-s	
421	216-B-41		Trench		1954	1954	573440.00	137430.00			line	76.8	3.0			234.116	1	Liquid	216	B	2	216B-2	216-B-41	El-s	El-dn						2026	ABAR2E16	ET-Cap	Hanford-116	Hanford-116	500	2526	Wa-s	
422	216-B-42		Trench		1955	1955	573345.00	137060.00			line	76.8	3.0			234.116	1	Liquid	216	B	2	216B-2	216-B-42	El-s	El-dn						2026	ABAR2E16	ET-Cap	RCRA C-112	RCRA C-112	500	2526	Wa-s	
423	216-B-43		Crib		1954	1954	573624.94	137614.02			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-43	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
424	216-B-44		Crib		1954	1955	573624.88	137639.92			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-44	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
425	216-B-45		Crib		1955	1955	573624.81	137665.83			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-45	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
426	216-B-46		Crib		1955	1955	573624.75	137691.64			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-46	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
427	216-B-47		Crib		1955	1955	573582.31	137613.89			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-47	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
428	216-B-48		Crib		1955	1955	573582.19	137639.80			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-48	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
429	216-B-49		Crib		1955	1955	573582.19	137665.63			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	3	216B-3	216-B-49	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
430	216-B-5		Injection/Reverse Well		1945	1947	573781.06	136732.14			point	92.0		92.0	0.2	0.033	1	Liquid	267	B	2	267B-2	216-B-5	El-s	El-dn						2022	No Action				El-ds	30	2052	El-s
431	216-B-50		Crib		1965	1974	573582.13	137691.50			point	22.9	22.9	4.3		522.580	1	Liquid	216	B	4	216B-4	216-B-50	El-s	El-dn						2026	ABAR2E13	ET-Cap	Hanford-115	Hanford-115	500	2526	Wa-s	
432	216-B-51		French Drain	High salt, neutral to basic scavenged tributyl phosphate waste.	1956	1958	573866.31	137611.94			point			4.3	1.5	1.824	1	Liquid	216	B	3	216B-3	216-B-51	El-s	El-dn						2026	No Action				El-ds	30	2056	El-s
433	216-B-52		Trench		1957	1958	573293.59	134269.49			line	176.8	3.0			538.838	1	Liquid	216	A_BCT_S	3	216A_BCT_S-3	216-B-52	Rp-s	Rp-dn	1969	ABAR	G-dn	1982	ABAR	Rp-ds	2009	ABAR2E04	ET-Cap	RCRA C-117	RCRA C-117	500	2509	Wa-s
434	216-B-53A		Trench		1965	1965	573214.34	134439.27			line	18.3	3.0			55.742	1	Liquid	216	A_BCT_N	4	216A_BCT_N-4	216-B-53A	Rp-s	Rp-dn	1969	ABAR	G-dn	1982	ABAR	Rp-ds	2009	RTD			Rp-ds	30	2039	Rp-s
435	216-B-53B		Trench		1962	1963	573234.77	134425.40			line	45.7	3.0			139.355	1	Liquid	216	A_BCT_N	4	216A_BCT_N-4	216-B-53B	Rp-s	Rp-dn	1969	ABAR	G-dn	1982	ABAR	Rp-ds	2009	RTD			Rp-ds	30	2039	Rp-s
436	216-B-54		Trench		1963	1965	573235.68	134378.31			line	61.0	3.0			185.806	1	Liquid	216	A_BCT_N	4	216A_BCT_N-4	216-B-54	Rp-s	Rp-dn	1969	ABAR	G-dn	1982	ABAR	Rp-ds	2009	RTD			Rp-ds	30	2039	Rp-s
437	216-B-55		Crib		1967	1991	573091.50	136495.38			polygon	228.6	3.0			696.773	1	Liquid	216	B	3	216B-3	216-B-55	El-s	El-dn						2022	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2522	Wa-s	
439	216-B-57		Crib	Waste storage tank condensate from the In Tank Solidification (ITS) #2 Unit	1968	1973	573498.50	137578.55			polygon	105.0	64.0	15		6720.000	1	Liquid	216	B	4	216B-4	216-B-57	El-s	El-dn						1994	IBAR	Hanford	RCRA C-111	RCRA C-111	1000	2994	Wa-s	
440	216-B-58		Trench		1965	1967	573235.68	134347.83			line	61.0	3.0			185.806	1	Liquid	216	A_BCT_N	4	216A_BCT_N-4	216-B-58	Rp-s	Rp-dn	1969	ABAR	G-dn	1982	ABAR	Rp-ds	2009	RTD			Rp-ds	30	2039	Rp-s
441	216-B-59		Trench		1967	1974	573833.00	136617.61			polygon	121.9	6.1	3.7		743.224	1	Liquid	216	B	4	216B-4	216-B-59	El-s	El-dn						2022	RTD			El-ds	30	2052	El-s	
442	216-B-59B		Retention Basin		1974	1997	573828.00	136645.86			polygon	40.0	30.0	3.0		1200.000	1	Liquid	216	B	4	216B-4	216-B-59B	El-s	El-dn						2022	RTD			El-ds	30	2052	El-s	
443	216-B-6		Injection/Reverse Well		1945	1949	573472.63	136403.03			point	48.8		23	0.2	0.018	1	Liquid	266	B	4	266B-4	216-B-6	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
444	216-B-60		Crib		1967																																		

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481	216-S-17		Pond		1951	1954	565991.31	133248.41	7	(566301.270,133508.444), (566102.383,133472.774), (565840.262,133318.745), (565795.945,133185.793), (566273.167,133132.828), (566326.672,133258.754), (566301.270,133508.444)	polygon	292.0	292.0	3.0		84983.990	1	Liquid	200	S	4	200S-4	216-S-17	Rp-s	Rp-dn							2016	ABAR2W11	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s
483	216-S-18		Trench		1954	1954	567065.88	134407.92			polygon	38.1	4.6	1.8		174.193	1	Liquid	200	S	4	200S-4	216-S-18	Rp-s	Rp-dn							2028	IBAR	ET-Cap	RCRA C-115	RCRA C-115	500	2528	Wa-s
484	216-S-19		Pond		1952	1984	567692.44	133274.69	6	(567602.379,133290.572), (567724.693,133292.947), (567782.881,133169.445), (567708.068,133114.820), (567597.629,133167.070), (567602.379,133290.572)	polygon					14164.000	1	Liquid	200	S	4	200S-4	216-S-19	Rp-s	Rp-dn							2016	RTD			Rp-ds	30	2046	Rp-s
485	216-S-20		Crib		1952	1972	567553.69	133916.75			polygon	27.4	12.2	9.1		334.451	1	Liquid	216	S	4	216S-4	216-S-20	Rp-s	Rp-dn							2030	RTD			Rp-ds	30	2060	Rp-s
486	216-S-21		Crib		1954	1970	566611.38	134409.23			polygon	15.2	15.2	6.7		232.258	1	Liquid	216	S	4	216S-4	216-S-21	Rp-s	Rp-dn							2016	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2516	Wa-s
487	216-S-22		Crib		1957	1967	567608.44	133989.03			polygon	30.5	1.1	3.0		32.516	1	Liquid	216	S	4	216S-4	216-S-22	Rp-s	Rp-dn							2030	IBAR	ET-Cap	RCRA C-19	RCRA C-19	500	2530	Wa-s
488	216-S-23		Crib		1969	1972	567113.63	134692.27			polygon	109.7	3.0	8.5		334.451	1	Liquid	216	S	4	216S-4	216-S-23	Rp-s	Rp-dn							2028	IBAR	ET-Cap	RCRA C-110	RCRA C-110	500	2528	Wa-s
489	216-S-25		Crib		1973	1992	566569.69	134287.22			polygon	175.3	3.0			534.192	1	Liquid	216	S	4	216S-4	216-S-25	Rp-s	Rp-dn							2016	IBAR	ET-Cap	RCRA C-111	RCRA C-111	500	2516	Wa-s
490	216-S-26		Crib		1984	1995	567594.94	133759.81			polygon	128.0	3.0			390.193	1	Liquid	216	S	4	216S-4	216-S-26	Rp-s	Rp-dn							2016	RTD			Rp-ds	30	2046	Rp-s
491	216-S-3		Crib		1953	1956	566893.44	134438.06			polygon	30.5	3.0	1.8		92.903	1	Liquid	216	S	4	216S-4	216-S-3	Rp-s	Rp-dn							2028	ABAR w/ S-SX-SY WMA	ET-Cap	RCRA C-18	RCRA C-18	500	2528	Wa-s
492	216-S-4		French Drain		1953	1956	566549.25	134456.61			polygon		0.8	6.1	0.8	0.456	1	Liquid	216	S	4	216S-4	216-S-4	Rp-s	Rp-dn							2016	ABAR2W09	ET-Cap	RCRA C-119	RCRA C-119	500	2516	Wa-s
493	216-S-5		Crib		1954	1957	566430.38	133440.17	5	(566390.601,133480.147), (566473.862,133481.228), (566474.403,133403.914), (566388.979,133404.455), (566390.601,133480.147)	polygon	64.0	64.0	4.6		4097.024	1	Liquid	216	S	4	216S-4	216-S-5	Rp-s	Rp-dn							2016	ABAR2W11	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s
494	216-S-6		Crib		1954	1972	566216.75	133595.77	5	(566173.257,133639.100), (566271.656,133640.182), (566268.953,133556.380), (566171.094,133555.299), (566173.257,133639.100)	polygon	64.0	64.0	4.6		4097.024	1	Liquid	216	S	4	216S-4	216-S-6	Rp-s	Rp-dn							2016	ABAR2W11	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s
495	216-S-7		Crib		1956	1965	567168.25	134176.48			polygon	30.5	15.2	6.6		464.515	1	Liquid	216	S	4	216S-4	216-S-7	Rp-s	Rp-dn							2030	IBAR	ET-Cap	RCRA C-112	RCRA C-112	500	2530	Wa-s
496	216-S-8		Trench		1951	1952	566925.56	134222.89			polygon	30.5	18.3	7.6		557.418	1	Liquid	216	S	4	216S-4	216-S-8	Rp-s	Rp-dn							2030	IBAR	ET-Cap	RCRA C-113	RCRA C-113	500	2530	Wa-s
497	216-S-9		Crib		1965	1969	567175.94	134481.03			polygon	91.4	9.1			836.127	1	Liquid	216	S	4	216S-4	216-S-9	Rp-s	Rp-dn							2028	IBAR	ET-Cap	RCRA C-112	RCRA C-112	500	2528	Wa-s
4013	216-SX-2		Crib		1952	1965	566704.13	134161.38			polygon	19.0	8.0			152.000	1	Liquid	216	S	2	216S-2	216-SX-2	Rp-s	Rp-dn							2028	IBAR	ET-Cap	RCRA C-19	RCRA C-19	500	2528	Wa-s
498	216-T-1	216-T-1, 221-T Ditch, 221-T Trench, 216-T-1 Trench	Ditch		1944	1995	567551.31	137102.70			polygon	556.3	0.9	3.0		2162.783	1	Liquid	216	T	4	216T-4	216-T-1	Ba-s	Ba-dn							2017	IBAR	ET-Cap	Hanford-I12	Hanford-I12	500	2517	Wa-s
499	216-T-10	216-T-10, Decontamination Trenches, Equipment Decontamination Area	Trench		1951	1957	567353.81	136843.33			point	15.2	3.0	1.8		46.452	1	Liquid	216	T	4	216T-4	216-T-10	Rp-s	Rp-dn	1972	RTD		1972	RTD		2017	ABAR2W08	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s
500	216-T-11	216-T-11, Decontamination Trenches, Equipment Decontamination Area	Trench		1951	1957	567359.81	136841.92			point	15.2	3.0	1.8		46.452	1	Liquid	216	T	4	216T-4	216-T-11	Rp-s	Rp-dn	1972	RTD		1972	RTD		2017	ABAR2W08	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s
501	216-T-12	216-T-12, 207-T Sludge Grave, 207-T Sludge Pit, 216-T-11	Trench		1954	1954	566992.63	136737.05			polygon	4.6	3.0	2.4		13.935	1	Liquid	216	T	4	216T-4	216-T-12	Rp-s	Rp-dn							2031	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s
502	216-T-13	216-T-13, 269-W Regulated Garage, 269-W Decontamination Pit or Trench, 216-T-12, 269-W Regulated Garage Decontamination Pit	Trench		1954	1964	566776.31	136520.36		</																													

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521	216-T-31	216-T-31	French Drain		1954	1962	566868.44	136144.98			point				0.9	0.657	1	Liquid	216	T	4	216T-4	216-T-31	Rp-s	Rp-dn							2031	RTD/ABAR w/ TX-TY	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s		
522	216-T-32	216-T-32, 241-T #1 & 2 Cnbs, 216-T-6	Crib		1946	1952	566719.31	136696.13			polygon	20.7	4.3	7.9		88.444	1	Liquid	216	T	2	216T-2	216-T-32	Rp-s	Rp-dn							2031	ABAR2W03/T WMA	ET-Cap	Hanford-I10	Hanford-I10	500	2531	Wa-s		
523	216-T-33	216-T-33	Crib		1963	1963	567461.50	136898.14			polygon	9.1	1.5	3.3		13.935	1	Liquid	216	T	4	216T-4	216-T-33	Rp-s	Rp-dn							2017	IBAR	ET-Cap	RCRA C-19	RCRA C-19	500	2517	Wa-s		
524	216-T-34	216-T-34	Crib		1966	1967	567265.25	137110.86			polygon	61.0	9.1	4.6		557.418	1	Liquid	216	T	4	216T-4	216-T-34	Ba-s	Ba-dn							2017	IBAR	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s		
525	216-T-35	216-T-35	Crib		1967	1968	567168.44	137107.81			polygon	137.2	3.0	4.6		418.064	1	Liquid	216	T	4	216T-4	216-T-35	Ba-s	Ba-dn							2017	IBAR	ET-Cap	Hanford-I12	Hanford-I12	500	2517	Wa-s		
526	216-T-36	216-T-36	Crib		1967	1973	566702.00	136595.95			polygon	48.8	3.0	4.6		148.645	1	Liquid	216	T	4	216T-4	216-T-36	Rp-s	Rp-dn							2031	RTD			Rp-ds	30	2061	Rp-s		
527	216-T-4-1D	216-T-4-1D, 216-T-4 Ditch, 216-T-4 Swamp	Ditch		1944	1972	566762.14	136960.00			line	259.1	2.4			631.741	1	Liquid	200	T	4	200T-4	216-T-4-1D	Rp-s	Rp-dn							2031	RTD			Rp-ds	30	2061	Rp-s		
528	216-T-4-2	216-T-4-2, 216-T-4-2 Ditch	Ditch		1972	1995	566758.43	137042.02			line	533.4	2.4	1.2		1300.643	1	Liquid	200	T	4	200T-4	216-T-4-2	Rp-s	Rp-dn							2023	RTD			Rp-ds	30	2053	Rp-s		
529	216-T-4A	216-T-4A, 216-T-4 Swamp, 216-T-4-1 (P), 216-T-4-1 Pond	Pond		1944	1972	566533.00	137099.09	9	(566438.727,137406.606), (566430.678,137198.667), (566453.819,137063.507), (566555.441,137029.298), (566653.038,137043.384), (566712.401,137160.098), (566542.361,137285.867), (566522.238,137418.680), (566438.727,137406.606)	point	548.6	182.9				100335.286	1	Liquid	200	T	4	200T-4	216-T-4A	Rp-s	Rp-dn								2023	IBAR	ET-Cap	Hanford-I21	Hanford-I21	500	2523	Wa-s
530	216-T-4B	216-T-4B, 216-T-4 New Pond, 216-T-4-2 (P), 216-T-4-2 Pond	Pond		1972	1995	566522.63	137271.25			point					6100.000	1	Liquid	200	T	4	200T-4	216-T-4B	Rp-s	Rp-dn							2023	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2523	Wa-s		
531	216-T-5	216-T-5, 216-T-5 Grave, 216-T-12, 216-T-5 Trench, 241-T-5 Trench	Trench		1955	1955	566666.50	136727.09			polygon	15.2	3.0	3.7		46.452	1	Liquid	216	T	2	216T-2	216-T-5	Rp-s	Rp-dn							2031	ABAR2W03/T WMA	ET-Cap	RCRA C-19	RCRA C-19	500	2531	Wa-s		
532	216-T-6	216-T-6, 241-T-361 (1&2 Cnbs), 216-T-5, 361-T-1&2 Cnbs	Crib		1946	1951	567188.31	136663.17			polygon	39.5	16.9	7.6		667.260	1	Liquid	216	T	2	216T-2	216-T-6	Rp-s	Rp-dn							2017	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s		
533	216-T-7	216-T-7TF, 216-T-7 Tile Field, 241-T-3 Tile Field	Crib		1948	1955	566685.00	136659.56			polygon	94.5	25.6			2419.195	1	Liquid	216	T	2	216T-2	216-T-7	Rp-s	Rp-dn							2031	ABAR2W03/T WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2531	Wa-s		
534	216-T-8	216-T-8, 222-T-1 & 2 Cnbs	Crib		1950	1951	567650.75	136726.91			polygon	35.2	11.1			390.960	1	Liquid	216	T	4	216T-4	216-T-8	Rp-s	Rp-dn							2017	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2517	Wa-s		
535	216-T-9	216-T-9, Decontamination Trenches, Equipment Decontamination Area	Trench		1965	1969	567348.25	136844.84			point	15.2	3.0	1.8		46.452	1	Liquid	216	T	4	216T-4	216-T-9	Rp-s	Rp-dn	1972	RTD		1972	RTD	2017	ABAR2W08	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s			
1938	216-TY-201	216-TY-201, Supernatant Disposal Flush Tank	Settling Tank		1953	1966	566946.00	136417.00			point	7.1	3.0	2.9		21.674	1	Liquid	216	T	2	216T-2	216-TY-201	Rp-s	Rp-dn							2031	ABAR2W04	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s		
536	216-U-1/2		Crib		1951	1967	567243.19	135001.94			polygon	23.8	8.5			202.900	1	Liquid	216	S U N	4	216S U N-4	216-U-1%2	Rp-s	Rp-dn							2016	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s		
537	216-U-10		Pond		1944	1985	566346.75	134604.44	5	(566061.531,134750.348), (566425.386,134667.838), (566414.565,134324.272), (566059.217,134329.059), (566061.531,134750.348)	polygon						121405.693	1	Liquid	200	S	4	200S-4	216-U-10	Rp-s	Rp-dn							2016	ABAR2W09	ET-Cap	RCRA C-119	RCRA C-119	500	2516	Wa-s	
538	216-U-11		Ditch		1944	1957	565805.94	134729.88			line	1374.6	1.5	1.8		2094.964	1	Liquid	200	S	4	200S-4	216-U-11	Rp-s	Rp-dn							2016	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s		
539	216-U-12		Crib		1960	1988	567592.31	134501.55			polygon	30.5	3	4.6		92.903	1	Liquid	216	S	4	216S-4	216-U-12	Rp-s	Rp-dn							2016	IBAR	ET-Cap	RCRA C-110	RCRA C-110	500	2516	Wa-s		
540	216-U-13		Trench		1952	1956	566722.63	135067.77			polygon	61	6.1	5.5		371.612	1	Liquid	216	S	4	216S-4	216-U-13	Rp-s	Rp-dn							2028	ABAR w/ U WMA	ET-Cap	RCRA C-113	RCRA C-113	500	2528	Wa-s		
541	216-U-14		Ditch		1944	1995	567033.24	135347.11	7	(566420.112,134593.888), (566572.078,134673.933), (566649.051,134840.067), (566681.123,134822																															

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568	216-Z-20		Crib		1981	1995	566607.75	135230.80	8	(566577.112,135351.828), (566560.895,135246.419), (566544.678,134964.247), (566599.815,134957.760), (566604.680,135072.899), (566629.006,135269.122), (566625.762,135355.071), (566577.112,135351.828)	line	463.0	3.0				1411.197	1	Liquid	216	S	4	216S-4	216-Z-20	Rp-s	Rp-dn							2017	ABAR2W10	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s
3855	216-Z-21		Pond		1980	1995	566842.06	135523.36			polygon	41.6	41.6			1728.060	1	Liquid	200	S	4	200S-4	216-Z-21	Rp-s	Rp-dn							2017	IBAR	ET-Cap	Hanford-I11	Hanford-I11	500	2517	Wa-s	
569	216-Z-3		Crib		1952	1959	566576.81	135459.19			polygon	20.1	8.4	7.6	1.2	169.320	1	Liquid	216	S	1	216S-1	216-Z-3	Rp-s	Rp-dn							2017	ABAR2W07	ET-Cap	Hanford-I14	Hanford-I14	500	2517	Wa-s	
570	216-Z-4		Trench		1945	1945	566596.31	135920.70			polygon	3.0	3.0	4.6		9.290	1	Liquid	216	S	4	216S-4	216-Z-4	Rp-s	Rp-dn							2017	ABAR2W12	ET-Cap	Hanford-I9	Hanford-I9	500	2517	Wa-s	
571	216-Z-5		Crib		1945	1947	566555.19	135949.22			polygon	4.3	4.3	5.5		18.209	1	Liquid	216	S	4	216S-4	216-Z-5	Rp-s	Rp-dn							2017	ABAR2W12	ET-Cap	Hanford-I10	Hanford-I10	500	2517	Wa-s	
572	216-Z-6		Crib		1945	1945	566579.06	135875.77			polygon	15.8	2.6	2.4		41.063	1	Liquid	216	S	4	216S-4	216-Z-6	Rp-s	Rp-dn							2017	ABAR2W12	ET-Cap	Hanford-I8	Hanford-I8	500	2517	Wa-s	
573	216-Z-7		Crib		1947	1967	566700.56	135926.88			polygon	64.0	13.4	2.1		858.424	1	Liquid	216	S	1	216S-1	216-Z-7	Rp-s	Rp-dn							2017	ABAR2W12	ET-Cap	Hanford-I12	Hanford-I12	500	2517	Wa-s	
574	216-Z-8		French Drain		1955	1962	566654.19	135652.75			point			4.572	0.9	0.657	1	Liquid	216	S	4	216S-4	216-Z-8	Rp-s	Rp-dn							2017	ABAR2W07	ET-Cap	Hanford-I8	Hanford-I8	500	2517	Wa-s	
575	216-Z-9		Trench		1955	1962	566758.00	135610.58			polygon	36.6	27.4	6.4		1003.353	1	Liquid/Soil-Debris	216	S_Z9	1	216S_Z9-1	216-Z-9	Rp-s	Rp-dn	1978	RTD		1978	RTD	2017	ABAR2W07	ET-Cap	Hanford-I12	Hanford-I12	500	2517	Wa-s		
577	218-C-9		Burial Ground		1985	1989	574657.56	136464.67			polygon	86.3	86.3			16982.676	1	Soil-Debris	216	A	4	216A-4	218-C-9	Rp-s	Rp-dn							2017	IBAR	ET-Cap	Hanford-I16	Hanford-I16	500	2517	Wa-s	
578	218-E-1		Burial Ground		1945	1953	574754.69	135574.91			polygon	148.1	88.4			7440.512	1	Soil-Debris	216	A	4	216A-4	218-E-1	Rp-s	Rp-dn							2021	IBAR	ET-Cap	Hanford-I15	Hanford-I15	500	2521	Wa-s	
579	218-E-10		Burial Ground		1960	2018	572944.81	137267.61			polygon	716.3	617.2	4.9		442102.342	1	Soil-Debris	216	B	4	216B-4	218-E-10	El-s	El-dn							2027	IBAR	ET-Cap	Hanford-I20	Hanford-I20	500	2527	Wa-s	
580	218-E-12A		Burial Ground		1953	1967	574938.06	136803.19			polygon	362.1	12.2			4414.753	1	Soil-Debris	216	B	4	216B-4	218-E-12A	El-s	El-dn							2027	ABAR2E12	ET-Cap	Hanford-I19	Hanford-I19	500	2527	Wa-s	
581	218-E-12B		Burial Ground		1967	2018	574796.31	137446.50			polygon	1258.8	698.0	4.9		878649.081	1	Soil-Debris/RX-COMP	216	B	4	216B-4	218-E-12B	El-s	El-dn							2027	ABAR2E12	ET-Cap	Hanford-I21	Hanford-I21	500	2527	Wa-s	
583	218-E-14		Storage Tunnel		1960	1964	575259.13	135486.96			polygon	109.1	5.8	6.9		631.926	1	Cement/Soil-Debris	216	A	4	216A-4	218-E-14	Rp-s	Rp-dn							2021	D&D / ABAR	ET-Cap	RCRA C-I8	RCRA C-I8	500	2521	Wa-s	
584	218-E-15		Storage Tunnel		1967	1996	575277.31	135225.56			polygon	514.5	10.4	6.7		5331.891	1	Cement/Soil-Debris	216	A	4	216A-4	218-E-15	Rp-s	Rp-dn							2021	D&D / ABAR	ET-Cap	RCRA C-I8	RCRA C-I8	500	2521	Wa-s	
585	218-E-2		Burial Ground		1945	1953	573510.50	137077.88			polygon	164.9	134.4			22164.901	1	Soil-Debris	216	B	4	216B-4	218-E-2	El-s	El-dn							2027	ABAR2E14	ET-Cap	Hanford-I18	Hanford-I18	500	2527	Wa-s	
586	218-E-2A		Burial Ground		1945	1950	573544.63	136989.91			polygon	97.5	14.0			1367.533	1	Soil-Debris	216	B	4	216B-4	218-E-2A	El-s	El-dn							2027	ABAR2E14	ET-Cap	Hanford-I18	Hanford-I18	500	2527	Wa-s	
588	218-E-4		Burial Ground		1955	1956	573497.00	136890.73			polygon	237.7	61.0			14492.875	1	Soil-Debris	216	B	4	216B-4	218-E-4	El-s	El-dn							2027	IBAR	ET-Cap	Hanford-I15	Hanford-I15	500	2527	Wa-s	
589	218-E-5		Burial Ground		1954	1956	573417.13	137079.63			polygon	102.0	63.1			6432.746	1	Soil-Debris	216	B	4	216B-4	218-E-5	El-s	El-dn							2027	ABAR2E14	ET-Cap	Hanford-I18	Hanford-I18	500	2527	Wa-s	
590	218-E-5A		Burial Ground		1956	1959	573355.94	137087.56			polygon	36.6	30.5			1114.837	1	Soil-Debris	216	B	4	216B-4	218-E-5A	El-s	El-dn							2027	ABAR2E14	ET-Cap	Hanford-I18	Hanford-I18	500	2527	Wa-s	
592	218-E-7		Burial Ground		1945	1952	573500.44	136362.23			point					27.000	1	Soil-Debris	216	B	4	216B-4	218-E-7	El-s	El-dn							2022	RTD	ET-Cap	Hanford-I19	Hanford-I19	30	2052	El-s	
593	218-E-8		Burial Ground		1958	1959	575115.75	137224.70			polygon	121.9	35.1			4273.540	1	Soil-Debris	216	B	4	216B-4	218-E-8	El-s	El-dn							2027	ABAR2E12	ET-Cap	Hanford-I1					

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions								Remediation/Recharge Assumptions																
WIDS Site ID	WIDS Site Code	WIDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
661	241-AN-102		Double-Shell Tank	Non-complexed waste from Tank 241-SY-102, complexant concentrate waste, low-level waste from PUREX, complexant concentrate waste from Tank 241-AW-101.	1981	2024	575379.63	136389.19			polygon			16.764	22.9	410.433	1	Cement	241	A	3	241A-3	241-AN-102	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
662	241-AN-103		Double-Shell Tank	Non-complexed waste from Tank 241-SY-102, low-level waste from B Plant and dilute non-complexed waste from the 200-East Area single shell tanks, double-shell slurry feed waste.	1981	2024	575347.00	136389.06			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AN-103	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
663	241-AN-104		Double-Shell Tank	Non-complexed waste, double-shell slurry feed waste, low-level waste from PUREX.	1981	2024	575412.13	136421.86			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AN-104	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
664	241-AN-105		Double-Shell Tank	Non-complexed waste, double-shell slurry feed waste	1981	2024	575379.56	136421.77			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AN-105	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
665	241-AN-106		Double-Shell Tank	Non-complexed waste, concentrated customer waste, Hanford facility waste, phosphate waste.	1981	2024	575346.94	136421.67			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AN-106	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
666	241-AN-107		Double-Shell Tank	Non-complexed waste, complexant concentrate waste.	1981	2024	575346.81	136454.28			polygon			16.764	22.9	410.433	1	Cement	241	A	3	241A-3	241-AN-107	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
668	241-AP-101		Double-Shell Tank	Non-complexed waste, dilute non-complexed waste.	1986	2024	575537.38	135879.66			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-101	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
669	241-AP-102		Double-Shell Tank	Hanford facility waste, waste from PUREX, dilute non-complexed waste	1986	2024	575577.63	135879.77			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-102	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
670	241-AP-103		Double-Shell Tank	Non-complexed waste, waste from PUREX, dilute non-complexed waste.	1986	2024	575537.50	135847.05			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-103	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
671	241-AP-104		Double-Shell Tank	Hanford Facility waste, decontamination waste from N Reactor, dilute non-complexed waste	1986	2024	575577.69	135847.16			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-104	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
672	241-AP-105		Double-Shell Tank	Non-complexed waste, double-shell slurry feed waste.	1986	2024	575537.63	135796.45			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-105	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
673	241-AP-106		Double-Shell Tank	Hanford Facility waste, non-complexed waste, dilute non-complexed waste.	1986	2024	575577.88	135796.58			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-106	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
674	241-AP-107		Double-Shell Tank	Double-shell slurry feed waste, non-complexed waste, waste from PUREX, dilute non-complexed waste	1986	2024	575537.75	135763.84			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-107	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
675	241-AP-108		Double-Shell Tank	Dilute non-complexed waste, waste from PUREX, non-complexed waste, double-shell slurry feed waste	1986	2024	575577.94	135763.97			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AP-108	Rp-s	G-dn						2034	ABAR w/ AP WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2534	Wa-s	
679	241-AW-101		Double-Shell Tank		1980	2024	575338.69	135890.67			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-101	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
680	241-AW-102		Double-Shell Tank		1980	2024	575371.31	135890.75			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-102	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
681	241-AW-103		Double-Shell Tank		1980	2024	575338.75	135858.06			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-103	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
682	241-AW-104		Double-Shell Tank		1980	2024	575371.38	135858.16			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-104	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
683	241-AW-105		Double-Shell Tank		1980	2024	575338.88	135825.45			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-105	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
684	241-AW-106		Double-Shell Tank		1980	2024	575371.50	135825.55			polygon			16.764	22.9	410.433	1	Cement	241	A	2	241A-2	241-AW-106	Rp-s	G-dn						2034	ABAR w/ AW WMA	ET-Cap	Hanford-I15	Hanford-I15	500	2534	Wa-s	
692	241-AX-101		Single-Shell Tank	Double shell slurry feed is waste concentrated just before reacting the sodium aluminate saturation	1965	1980	575422.19	136203.86			polygon			15.24	22.9	410.433	1	Liquid/Cement	241	A	2	241A-2	241-AX-101	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2534	Wa-s	
693	241-AX-102		Single-Shell Tank	Concentrated complexant from the evaporation of dilute complexed waste.	1966	1980	575422.31	136172.78			polygon			15.24	22.9	410.433	1	Liquid/Cement	241	A	3	241A-3	241-AX-102	Rp-s	G-dn						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2534	Wa-s	
694	241-AX-103		Single-Shell Tank	Concentrated complexant from the evaporation of dilute complexed waste.																																			

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions						Remediation/Recharge Assumptions																		
WDS Site ID	WDS Site Code	WDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
721	241-B-109		Single-Shell Tank		1946	1977	573810.81	137328.78			polygon			9	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-B-109	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
722	241-B-110		Single-Shell Tank		1945	1971	573780.50	137267.75			polygon			9	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-B-110	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
723	241-B-111		Single-Shell Tank		1945	1976	573780.44	137298.23			polygon			9	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-B-111	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
724	241-B-112		Single-Shell Tank		1946	1977	573780.31	137328.72			polygon			9	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-B-112	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
725	241-B-201		Single-Shell Tank		1952	1971	573818.44	137359.42			polygon			11.5	6.1	29.186	1	Liquid/Cement	241	B	2	241B-2	241-B-201	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-111	RCRA C-111	500	2530	Wa-s	
726	241-B-202		Single-Shell Tank		1951	1977	573803.06	137359.42			polygon			11.5	6.1	29.186	1	Liquid/Cement	241	B	2	241B-2	241-B-202	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-111	RCRA C-111	500	2530	Wa-s	
727	241-B-203		Single-Shell Tank		1951	1977	573787.88	137359.34			polygon			11.5	6.1	29.186	1	Liquid/Cement	241	B	2	241B-2	241-B-203	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-111	RCRA C-111	500	2530	Wa-s	
728	241-B-204		Single-Shell Tank		1951	1977	573772.56	137359.42			polygon			11.5	6.1	29.186	1	Liquid/Cement	241	B	2	241B-2	241-B-204	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-111	RCRA C-111	500	2530	Wa-s	
712	241-B-361		Settling Tank		1945	1947	573770.44	136707.73			point	5.8			6.1	29.186	1	Liquid	241	B	2	241B-2	241-B-361	El-s	G-dn						2022	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
736	241-BX-101		Single-Shell Tank		1948	1975	573659.25	137316.91			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-101	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
737	241-BX-102		Single-Shell Tank		1948	1971	573659.13	137347.39			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-102	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
738	241-BX-103		Single-Shell Tank		1948	1977	573659.06	137377.88			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-103	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
739	241-BX-104		Single-Shell Tank		1949	1980	573628.75	137316.86			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-104	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
740	241-BX-105		Single-Shell Tank		1949	1980	573628.69	137347.30			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-105	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
741	241-BX-106		Single-Shell Tank		1949	1977	573628.56	137377.78			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-106	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
742	241-BX-107		Single-Shell Tank		1948	1977	573598.31	137316.77			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-107	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
743	241-BX-108		Single-Shell Tank		1949	1974	573598.19	137347.25			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-108	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
744	241-BX-109		Single-Shell Tank		1950	1974	573598.13	137377.69			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-109	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
745	241-BX-110		Single-Shell Tank		1949	1977	573567.81	137316.67			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-110	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
746	241-BX-111		Single-Shell Tank		1950	1977	573567.75	137347.16			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-111	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
747	241-BX-112		Single-Shell Tank		1950	1977	573567.63	137377.63			polygon			9.5	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BX-112	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
751	241-BY-101		Single-Shell Tank		1950	1971	573659.69	137468.67			polygon			11.2776	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BY-101	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
752	241-BY-102		Single-Shell Tank		1950	1977	573659.63	137499.77			polygon			11.2776	22.9	410.433	1	Liquid/Cement	241	B	2	241B-2	241-BY-102	El-s	G-dn						2030	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-116	RCRA C-116	500	2530	Wa-s	
753	241-BY-																																						

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions						Remediation/Recharge Assumptions																		
WIDS Site ID	WIDS Site Code	WIDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
778	241-C-107		Single-Shell Tank	Bismuth Phosphate First Cycle Waste, insoluble strontium leached, slicing solids.	1946	1978	575118.25	136547.25			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	2	241A_C-2	241-C-107	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
779	241-C-108		Single-Shell Tank	Used as a primary settling tank for "In-Farm Scavenged Uranium". On the ferrocyanide watch list.	1947	1977	575139.69	136568.86			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	3	241A_C-3	241-C-108	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
780	241-C-109		Single-Shell Tank	Used as a primary settling tank for "In-Farm Scavenged Uranium". On the ferrocyanide watch list.	1948	1978	575161.19	136590.47			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	3	241A_C-3	241-C-109	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
781	241-C-110		Single-Shell Tank	Bismuth phosphate first cycle waste and B Plant decontamination waste. Used as a primary settling tank for "In Farm Scavenged Uranium".	1946	1976	575096.63	136568.73			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	3	241A_C-3	241-C-110	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
782	241-C-111		Single-Shell Tank	Bismuth phosphate first cycle waste and B Plant decontamination waste. Used as a primary settling tank for "In Farm Scavenged Uranium".	1946	1978	575118.13	136590.34			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	3	241A_C-3	241-C-111	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
783	241-C-112		Single-Shell Tank	Bismuth phosphate first cycle waste and B Plant decontamination waste. Used as a primary settling tank for "In Farm Scavenged Uranium".	1946	1976	575139.63	136611.95			polygon			11.7348	22.9	410.433	1	Liquid/Cement	241	A_C	3	241A_C-3	241-C-112	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
784	241-C-201		Single-Shell Tank	Receiving metal waste.	1947	1977	575188.13	136606.70			polygon			#####	6.1	29.186	1	Liquid/Cement	241	A_C	2	241A_C-2	241-C-201	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I11	Hanford-I11	500	2530	Wa-s	
785	241-C-202		Single-Shell Tank	Receiving metal waste.	1947	1977	575177.31	136617.45			polygon			#####	6.1	29.186	1	Liquid/Cement	241	A_C	2	241A_C-2	241-C-202	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I11	Hanford-I11	500	2530	Wa-s	
786	241-C-203		Single-Shell Tank	Receiving metal waste.	1947	1976	575166.50	136628.20			polygon			#####	6.1	29.186	1	Liquid/Cement	241	A_C	2	241A_C-2	241-C-203	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I11	Hanford-I11	500	2530	Wa-s	
787	241-C-204		Single-Shell Tank	Receiving metal waste.	1948	1977	575155.69	136638.94			polygon			#####	6.1	29.186	1	Liquid/Cement	241	A_C	2	241A_C-2	241-C-204	Rp-s	G-dn						2030	ABAR w/ C WMA	ET-Cap	Hanford-I11	Hanford-I11	500	2530	Wa-s	
807	241-S-101		Single-Shell Tank		1953	1980	566835.13	134503.05			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-101	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
808	241-S-102		Single-Shell Tank		1953	1980	566804.06	134502.97			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-102	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
809	241-S-103		Single-Shell Tank		1953	1980	566772.94	134502.89			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-103	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
810	241-S-104		Single-Shell Tank		1953	1968	566835.19	134471.95			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-104	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
811	241-S-105		Single-Shell Tank		1953	1976	566804.13	134471.89			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-105	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
812	241-S-106		Single-Shell Tank		1953	1976	566773.06	134471.81			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-106	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
813	241-S-107		Single-Shell Tank		1952	1980	566835.31	134440.88			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-107	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
814	241-S-108		Single-Shell Tank		1952	1979	566804.19	134440.80			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-108	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
815	241-S-109		Single-Shell Tank		1952	1979	566773.13	134440.72			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-109	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
816	241-S-110		Single-Shell Tank		1952	1976	566835.38	134409.78			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-110	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
817	241-S-111		Single-Shell Tank		1952	1972	566804.31	134409.72			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-111	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
818	241-S-112		Single-Shell Tank		1952	1974	566773.19	134409.64			polygon			#####	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-S-112	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
824	241-SX-101		Single-Shell Tank	REDOX high-level waste and ion exchange waste, evaporator bottoms, partial neutralization feed, and complexed waste.	1954	1980	566835.63	134297.64			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	3	241S-3	241-SX-101	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
825	241-SX-102		Single-Shell Tank	REDOX high-level waste, carbonate waste, concrete, ion exchange waste, evaporator bottoms, and partial neutralization feed	1954	1980	566804.56	134297.56			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-102	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
826	241-SX-103		Single-Shell Tank	REDOX high-level waste, concrete, coating waste, evaporator bottoms, organic wash waste, and partial neutralization feed	1954	1980	566773.50	134297.48			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-103	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
827	241-SX-104		Single-Shell Tank	REDOX high-level waste and ion exchange waste, double-shell slurry feed, and evaporator bottoms.	1955	1980	566835.75	134266.56			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-104	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
828	241-SX-105		Single-Shell Tank	REDOX high-level waste and ion exchange waste, double-shell slurry feed, evaporator bottoms, and partial neutralization feed	1955	1980	566804.63	134266.48			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-105	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
829	241-SX-106																																						

Site Identifiers			General Site Design and Operational History Information					Geographic Information					Facility Dimensions					Model-Specific Instructions										Remediation/Recharge Assumptions											
WDS Site ID	WDS Site Code	WDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
834	241-SX-111		Single-Shell Tank	REDOX high-level waste and supernatant containing REDOX high-level waste and REDOX ion exchange waste	1956	1974	566804.81	134204.31			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-111	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
835	241-SX-112		Single-Shell Tank	REDOX high-level waste and supernatant containing REDOX high-level waste	1956	1969	566773.69	134204.23			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-112	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
836	241-SX-113		Single-Shell Tank	REDOX high-level waste, Diatomaceous earth.	1958	1962	566835.94	134173.31			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-113	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
837	241-SX-114		Single-Shell Tank	REDOX high-level waste and ion exchange waste, and evaporator bottoms	1957	1972	566804.88	134173.23			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-114	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
838	241-SX-115		Single-Shell Tank	REDOX high-level waste and supernatant containing REDOX high-level waste.	1958	1965	566773.81	134173.16			polygon			15.3924	22.9	410.433	1	Liquid/Cement	241	S	2	241S-2	241-SX-115	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2530	Wa-s	
841	241-SY-101		Double-Shell Tank	Double-shell slurry, and radioactive mixed waste	1977	2024	566899.00	134557.75			polygon			16.383	22.9	410.433	1	Cement	241	S	2	241S-2	241-SY-101	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2530	Wa-s	
842	241-SY-102		Double-Shell Tank	Supernatant containing partial neutralization feed, double-shell slurry feed, double-shell slurry, and noncomplexed wastes	1977	2024	566866.38	134557.67			polygon			16.383	22.9	410.433	1	Cement	241	S	2	241S-2	241-SY-102	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2530	Wa-s	
843	241-SY-103		Double-Shell Tank	Supernatant containing complexed waste and double-shell slurry	1977	2024	566899.06	134525.14			polygon			16.383	22.9	410.433	1	Cement	241	S	3	241S-3	241-SY-103	Rp-s	G-dn						2030	ABAR w/ S-SX-SY WMA	ET-Cap	Hanford-I14	Hanford-I14	500	2530	Wa-s	
851	241-T-101	241-T-101, 241-T-TK-101	Single-Shell Tank		1944	1979	566837.88	136764.75			polygon			11.6	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-101	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
852	241-T-102	241-T-102, 241-T-TK-102	Single-Shell Tank		1945	1976	566807.44	136764.67			polygon			11.6	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-102	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
853	241-T-103	241-T-103, 241-T-TK-103	Single-Shell Tank		1945	1974	566776.94	136764.59			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-103	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
854	241-T-104	241-T-104, 241-T-TK-104	Single-Shell Tank		1946	1974	566837.94	136734.27			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-104	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
855	241-T-105	241-T-105, 241-T-TK-105	Single-Shell Tank		1946	1976	566807.50	136734.19			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-105	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
856	241-T-106	241-T-106, 241-T-TK-106	Single-Shell Tank		1947	1973	566777.00	136734.13			polygon			11.8	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-106	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
857	241-T-107	241-T-107, 241-T-TK-107	Single-Shell Tank		1944	1976	566838.06	136703.80			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-107	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
858	241-T-108	241-T-108, 241-T-TK-108	Single-Shell Tank		1945	1974	566807.56	136703.72			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-108	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
859	241-T-109	241-T-109, 241-T-TK-109	Single-Shell Tank		1945	1974	566777.06	136703.70			polygon			11.9	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-109	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
860	241-T-110	241-T-110, 241-T-TK-110	Single-Shell Tank		1944	1976	566838.13	136673.33			polygon			11.6	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-110	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
861	241-T-111	241-T-111, 241-T-TK-111	Single-Shell Tank		1945	1974	566807.63	136673.25			polygon			11.6	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-111	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
862	241-T-112	241-T-112, 241-T-TK-112	Single-Shell Tank		1946	1976	566777.19	136673.17			polygon			11.7	22.9	410.433	1	Liquid/Cement	241	T	2	241T-2	241-T-112	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I16	Hanford-I16	500	2531	Wa-s	
863	241-T-201	241-T-201, 241-T-TK-201	Single-Shell Tank		1952	1976	566746.63	136711.19			polygon			11.5	6.1	29.186	1	Liquid/Cement	241	T	2	241T-2	241-T-201	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I12	Hanford-I12	500	2531	Wa-s	
864	241-T-202	241-T-202, 241-T-TK-202	Single-Shell Tank		1952	1976	566746.63	136695.95			polygon			11.4	6.1	29.186	1	Liquid/Cement	241	T	2	241T-2	241-T-202	Rp-s	G-dn						2031	ABAR2W03/T WMA	ET-Cap	Hanford-I12	Hanford-I12	500	2531	Wa-s	
865	241-T-203	241-T-203, 241-T-TK-203	Single-Shell Tank		1952	1976	566746.69	136																															

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WIDS Site ID	WIDS Site Code	WIDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
4484	2607-E8A	2607-E8A, 2607-E8A Regional Septic System	Septic Tank	Sanitary Sewage	1996	2000	573978.00	135367.00			Polygon	150.0	125.0			18750.000	2	Liquid	216	A	4	216A-4	2607-E8A	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
965	2607-E9	2607-E9, 242B/BL Septic Tank	Septic Tank	Sanitary Sewage	1951	2000	573892.88	137227.47			Point					9.990	2	Liquid	216	B	4	216B-4	2607-E9	El-s	El-ds						2026	RTD			El-ds	30	2056	El-s	
966	2607-EA	2607-EA, 2607-EA Septic Tank and Drywell	Septic Tank	Sanitary Sewage	1976	2000	575199.90	136052.21			Point					9.990	2	Liquid	216	A	4	216A-4	2607-EA	Rp-s	Rp-ds						2021	No Action			Rp-ds	30	2051	Rp-s	
967	2607-EB	2607-EB, 241-BY-254 (ITS #2) Sanitary Septic System	Septic Tank	Sanitary Sewage	1951	2000	573528.88	137529.91			Point					65.032	2	Liquid	216	B	4	216B-4	2607-EB	El-s	El-ds						2026	ABAR w/ B-BX-BY WMA	ET-Cap	RCRA C-I8	RCRA C-I8	500	2526	Wa-s	
968	2607-EC	2607-EC	Septic Tank	Sanitary Sewage	1955	2000	575415.25	135950.47			Point					9.990	2	Liquid	216	A	4	216A-4	2607-EC	Rp-s	Rp-ds						2034	No Action			Rp-ds	30	2064	Rp-s	
969	2607-ED	2607-ED	Septic Tank	Sanitary Sewage	1963	2000	575422.63	136140.66			Point					9.990	2	Liquid	216	A	4	216A-4	2607-ED	Rp-s	Rp-ds						2034	ABAR w/ A-AN-AX-AY-AZ WMA	ET-Cap	RCRA C-I8	RCRA C-I8	500	2534	Wa-s	
970	2607-EG	2607-EG	Septic Tank	Sanitary Sewage	1953	2000	575185.25	136467.91			Point					9.990	2	Liquid	216	A	4	216A-4	2607-EG	Rp-s	Rp-ds						2016	RTD / ABAR w/ C WMA	ET-Cap	RCRA C-I8	RCRA C-I8	500	2516	Wa-s	
973	2607-EK	2607-EK	Septic Tank	Sanitary Sewage	1975	1997	573853.20	135220.01			Polygon, Line	13.4	3.3	3.4		43.838	2	Liquid	216	A	4	216A-4	2607-EK	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
3884	2607-EL	2607-EL, 2607-EL Septic Tank/Pump Station	Septic Tank	Sanitary Sewage	1994	2000	572930.58	135629.41			Polygon	9.1	5.5			50.168	2	Liquid	216	A	4	216A-4	2607-EL	Ba-s	Ba-ds						2024	No Action			Ba-ds	30	2054	Ba-s	
975	2607-EM	2607-EM	Septic Tank	Sanitary Sewage	1994	2000	572673.13	135661.42			Point	6.9	2.7	2.6		18.372	2	Liquid	216	A	4	216A-4	2607-EM	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
976	2607-EP	2607-EP	Septic Tank	Sanitary Sewage	1984	2000	572892.77	135667.58			Polygon					9.990	2	Liquid	216	A	4	216A-4	2607-EP	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
977	2607-EQ	2607-EQ	Septic Tank	Sanitary Sewage	1958	2000	573345.06	135152.23			Point	5.8	2.3			13.624	2	Liquid	216	A	4	216A-4	2607-EQ	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
978	2607-ER	2607-ER	Septic Tank	Sanitary Sewage	1980	1997	573685.28	134542.10			Polygon					9.990	2	Liquid	216	A	4	216A-4	2607-ER	Rp-s	Rp-ds						2024	No Action			Rp-ds	30	2054	Rp-s	
268	2607-FSM	2607-FSM, 609 Building Septic Tank 2607-FSM, 100 Area Fire Station Septic Tank, 1607-FSM, 6607-FSM	Septic Tank	Sanitary Sewage	1960	2000	572158.13	145294.39			Polygon	3.4	1.4			4.599	2	Liquid	116	K	4	116K-4	2607-FSM	Eb-s	Eb-ds						2012	RTD			Eb-ds	30	2042	Eb-s	
979	2607-FSN	2607-FSN, 609A Building Septic Tank 2607-FSN	Septic Tank	Sanitary Sewage	1960	1988	570722.13	135754.59			Polygon					9.990	2	Liquid	216	T	4	216T-4	2607-FSN	Ba-s	Ba-ds						2029	No Action			Ba-ds	30	2059	Ba-s	
981	2607-W1	2607-W1	Septic Tank	Sanitary Sewage	1944	2000	567265.69	136002.91			poly					9.990	2	Liquid	216	T	4	216T-4	2607-W1	Rp-s	Rp-ds						2017	No Action			Rp-ds	30	2047	Rp-s	
982	2607-W2	2607-W2	Septic Tank	Sanitary Sewage	1980	1994	568177.06	135915.55			point	4.3	2.1	3.5		9.104	2	Liquid	216	T	4	216T-4	2607-W2	Ba-s	Ba-ds						2017	No Action			Ba-ds	30	2047	Ba-s	
983	2607-W3	2607-W3	Septic Tank	Sanitary Sewage	1944	1996	567327.94	136690.58			point	6.4	2.7	3.8		17.559	2	Liquid	216	T	4	216T-4	2607-W3	Rp-s	Rp-ds						2017	RTD			Rp-ds	30	2047	Rp-s	
984	2607-W4	2607-W4, T Plant Septic Tank and Drain Field	Septic Tank	Sanitary Sewage	1944	1998	567597.81	136995.97			point	1.3	0.6			0.799	2	Liquid	216	T	4	216T-4	2607-W4	Rp-s	Rp-ds						2017	RTD			Rp-ds	30	2047	Rp-s	
985	2607-W5	2607-W5, Septic Tank and Drain Field	Septic Tank	Sanitary Sewage	1944	2000	567291.29	135043.67			Polygon	70.5	31.5			2220.750	2	Liquid	216	S	4	216S-4	2607-W5	Rp-s	Rp-ds						2016	No Action			Rp-ds	30	2046	Rp-s	
986	2607-W6	2607-W6	Septic Tank	Sanitary Sewage	1951	2000	567337.16	133690.31			Polygon	9.3	2.7			25.585	2	Liquid	216	S	4	216S-4	2607-W6	Rp-s	Rp-ds						2016	No Action			Rp-ds	30	2046	Rp-s	
987	2607-W7	2607-W7, Septic Tank	Septic Tank	Sanitary Sewage	1954	2000	567645.31	135289.48			Point	1.2	0.6			0.743	2	Liquid	216	S	4	216S-4	2607-W7	Rp-s	Rp-ds						2016	No Action			Rp-ds	30	2046	Rp-s	
988	2607-W8	2607-W8	Septic Tank	Sanitary Sewage	1944	1998	566568.35	136003.52			Polygon	5.9	1.8	3.7		10.870	2	Liquid	216	S	4	216S-4	2607-W8	Rp-s	Rp-ds						2017	ABAR2W07	ET-Cap	RCRA C-I8	RCRA C-I8	500	2517	Wa-s	
989	2607-W9	2607-W9, 2707-SX Septic Tank	Septic Tank	Sanitary Sewage	1950	2000	566693.66	134285.89			Polygon					9.990	2	Liquid	216	T	4	216T-4	2607-W9	Ba-s	Ba-ds						2028	No Action			Ba-ds	30	20		

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4389	300-265		Radioactive Process Sewer		1971	2004	594150.00	115843.00				350.0	1.0			350.000	1	Liquid	300	R	4	300R-4	300-265	Rp-s	Rp-dn						2005	RTD			Rp-ds	30	2035	Rp-s	
4434	300-270	Unplanned Release at 313 Building	Unplanned Release	Soil	1969	1969	593875.00	116150.00								0.999	1	Liquid	300	R	4	300R-4	300-270	Rp-s	G-dn						2006	RTD			Rp-ds	30	2036	Rp-s	
1927	300-28		Unplanned Release		1990	1998	593926.19	116092.34			line	168.0	6.5			1055.000	1	Soil-Debris	300	R	4	300R-4	300-28	Rp-s	ABC						2008	RTD			Rp-ds	30	2038	Rp-s	
1926	300-33		Unplanned Release		1956	1990	593978.44	116125.02			polygon	115.8	48.8			5648.505	1	Soil-Debris	300	R	4	300R-4	300-33	Rp-s	Rp-dn						2009	RTD			Rp-ds	30	2039	Rp-s	
3681	300-39	309 Building Ex-vessel Irradiated Fuel Storage Basin, 309 Building Irradiated Fuel Storage Basin, 309 Fuel Storage Basin	Storage	Equipment	1969	1969	594130.00	115685.00				27.4	10.1	10.4		275.922	1	Soil-Debris	300	R	4	300R-4	300-39	Rp-s	ABC						2007	RTD			Rp-ds	30	2037	Rp-s	
1737	300-4		Unplanned Release		1949	1990	593785.50	116261.41			polygon	19.5	21.3			415.000	1	Liquid/Soil-Debris	300	R	4	300R-4	300-4	Rp-s	Rp-dn						2009	RTD			Rp-ds	30	2039	Rp-s	
1782	300-40		Unplanned Release		1980	1995	593900.69	116121.05			point	0.030				0.030	1	Liquid	300	R	4	300R-4	300-40	Rp-s	G-dn						2009	RTD			Rp-ds	30	2039	Rp-s	
3803	300-48		Unplanned Release		1949	1970	593833.13	116062.49			polygon	14.7	8.7			126.813	1	Liquid	300	R	4	300R-4	300-48	Rp-s	Rp-dn						2010	RTD			Rp-ds	30	2040	Rp-s	
4000	300-80	300-80, 314 Building Stormwater Runoff and Steam Condensate, Miscellaneous Stream #268	French Drain	Stormwater Runoff	1969	1969	593706.75	116107.03			polygon	1.2192	1.2192			1.486	1	Liquid	300	R	4	300R-4	300-80	Rp-s	ABC						2010	RTD			Rp-ds	30	2040	Rp-s	
1052	303-K_CWS	303-K CWS, 303-K Contaminated Waste Storage	Storage	Barrels/Drums/Buckets/Cans	1944	1944	593802.56	116112.54			Polygon	24.079	28.651	4.1148		689.898	1	Soil and Liquid	300	R	4	300R-4	303-K_CWS	Rp-s	ABC						2004	RTD			Rp-ds	30	2034	Rp-s	
1053	303-M-SA	303-M SA, 303-M Storage Area, 303-M Building Storage Area	Storage	Barrels/Drums/Buckets/Cans	1983	1987	594001.50	116273.07			Polygon	13.655	10.607	0.12701		144.840	1	Soil and Liquid	300	R	4	300R-4	303-M-SA	Rp-s	ABC						2010	RTD			Rp-ds	30	2040	Rp-s	
1054	303-M-UOF	303-M UOF, 303-M Uranium Oxide Facility	Process Unit/Plant	Chemicals	1983	1987	594012.88	116273.00			Polygon					99.900	1	Cement	300	R	4	300R-4	303-M-UOF	Rp-s	ABC						2010	RTD			Rp-ds	30	2040	Rp-s	
1057	305-B_SF	305-B SF, 305-B Storage Facility	Storage	Chemicals	1978	1978	593723.38	116159.29			Polygon	36.881	11.582	5.4864		427.168	1	Soil and Liquid	300	R	4	300R-4	305-B_SF	Rp-s	ABC						2004	RTD			Rp-ds	30	2034	Rp-s	
1058	307_RB		Retention Basin		1953	2005	594163.31	115909.95			polygon	8.5	5.2	2.7		44.222	1	Liquid	300	R	4	300R-4	307_RB	Rp-s	Rp-dn						2007	RTD			Rp-ds	30	2037	Rp-s	
1661	309-WS-1	The 309-WS-1 Vault is a below grade, reinforced concrete structure containing two levels. The vault has connecting piping to the dome. The upper (main vault) level housed the ion exchangers (IX) used for moderator cleaning, while the lower (resin disposal) level was used to store spent columns. The lower vault has been cleaned of debris, decontaminated and coated with a fixative paint. The upper vault was cleaned of debris and swept clean. Access to the upper vault is through shielding blocks and access to the lower vault is through two concrete plugs.	Process Unit/Plant	Chemicals	1961	1969	594148.88	115693.64			Point	4.2672	4.2672	4.8768		18.209	1	Cement/Liquid	316	R	4	316R-4	309-WS-1	Rp-s	ABC						2009	RTD			Rp-ds	30	2039	Rp-s	
1662	309-WS-2	309-WS-2, Rupture Loop Ion Exchange Pit, Ion Exchange Vault, Rupture Loop Annex Ion Exchange Loop Vault, RLAI, PRTR Rupture Loop	Process Unit/Plant	Equipment	1960	1969	594127.63	115705.52			Point	7.97357	4.825	4.8768		38.462	1	Cement	316	R	4	316R-4	309-WS-2	Rp-s	ABC						2009	RTD			Rp-ds	30	2039	Rp-s	
1070	313_ESSP	313 ESSP, 313 East Side Storage Pad, 313 Building East Site Storage Pad	Storage	Barrels/Drums/Buckets/Cans	1969	1969	593877.56	116107.71			Polygon					99.900	1	Soil and Liquid	300	R	4	300R-4	313_ESSP	Rp-s	ABC						2010	RTD			Rp-ds	30	2040	Rp-s	
1076	316-1		Pond		1943	1986	594283.63	116106.10	6	(594161.253,116208.892), (594299.780,116227.251), (594438.307,116170.505), (594454.997,116015.288), (594191.295,116006.943), (594161.253,116208.892)	polygon	182.9	114.3			32000.000	1	Liquid	300	R	4	300R-4	316-1	Rp-s	Rp-dn							2001	RTD			Rp-ds	30	2031	Rp-s
1077	316-2		Pond		1949	1974	594238.69	116566.36	7	(594331.491,116724.613), (594131.211,116642.832), (594126.204,116492.622), (594166.260,116389.144), (594379.892,116392.482), (594379.892,116554.375), (594331.491,116724.613)	polygon	189.0	182.9			40000.000	1	Liquid	300	R	4	300R-4	316-2	Rp-s	Rp-dn							1999	RTD			Rp-ds	30	2029	Rp-s
1078	316-3		Trench		1953	1963	594273.63	115861.58			polygon	182.9	3.0	6.1		557.418	1	Liquid	316	R	4	316R-4	316-3	Rp-s	Rp-dn						2011	RTD			Rp-ds	30	2041	Rp-s	
1079	316-4		Crib		1948	1956	590974.44	121671.41			point	7.8	7.9			62.802	1	Liquid	616	P	4	616P-4	316-4	Rp-s	Rp-dn						2006	RTD			Rp-ds	30	2036	Rp-s	
1080	316-5		Trench		1975	1994	594083.81	116715.63	5	(594114.705,116392.304), (594105.094,116887.288), (593992.961,116887.288), (593992.961,116392.304), (594114.705,116392.304)	polygon	467.9	3.0	3.7		1426.062	1	Liquid	316	R	4	316R-4	316-5	Rp-s	Rp-dn							1998	RTD			Rp-ds	30	2028	Rp-s
1086	325_WTF	325 WTF, 325 Waste Treatment Facility, 325 Hazardous Waste Treatment Units	Process Unit/Plant	Chemicals	1969	1969	593983.22	115804.51			Polygon					99.900	1	Cement/Liquid	300	R	4	300R-4	325_WTF	Rp-s	ABC						2012	RTD			Rp-ds	30	2042	Rp-s	
1087	331_LSLDF		Drain/Tile Field		1970	1974	594641.25	115364.73			polygon					831.109	1	Liquid	316	R	4	316R-4	331_LSLDF	Rp-s	Rp-dn						2010	RTD			Rp-ds	30	2040	Rp-s	
1089	331_LSLT2	331 LSLT2, 331 LSL Trench 2, 331 Life Sciences Laboratory Trench #2	Trench	Animal Waste	1966	1974	594592.13	115395.33			point			2.1		99.900	1	Liquid	316	R	4	316R-4	331_LSLT2	Rp-s	Rp-dn						2011	RTD			Rp-ds	30	2041	Rp-s	
1091	333_ESHWSA	333 ESHWSA, 333 East Side HWSA, 333 Building East Side Hazardous Waste Storage Area	Storage	Barrels/Drums/Buckets/Cans	1964	1964	594003.44	116284.65			Polygon					99.900	1	Liquid	300	R	4	300R-4	333_ESHWSA	Rp-s	ABC						2011	RTD			Rp-ds	30	2041	Rp-s	
1103	3712_USSA	3712 USSA, 3712 Uranium Scrap Storage Area, 3712 Building Uranium Scrap Storage Area, 3712 Fuels Warehouse	Storage	Chemicals	1961	1961	593907.44	116149.45			Polygon					99.900	1	Soil-Debris	300	R	4	300R-4	3712_USSA	Rp-s	ABC						2011	RTD			Rp-ds	30	2041	Rp-s	
1778	400-11	400-11, 4607 SSL, 4607 Sanitary Sewer Lagoon, 400 Area Wetlands	Pond	Sanitary Sewage	1987	1996	587680.44	123983.48			Polygon				22.9	9.990	2	Liquid	400	Q	4	400Q-4	400-11	Rp-s	Rp-dn						2015	No Action			Rp-ds	30	2045	Rp-s	
1774	400-7	400-7, 4607 SSST, 4607 Sanitary Sewer Septic Tank, 4607 SS, 4607 Sanitary Sewer	Septic Tank	Sanitary Sewage	1978	1986	587406.75	123666.51			Polygon					9.990	2</																						

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328	600-108	213-J&K Vaults	Storage		1944	2020	579282.19	140170.25			polygon	12.2	3.7		2.4	44.615	1	Soil-Debris	200	G	4	200G-4	600-108	El-s	ABC							2004	RTD			El-ds	30	2034	El-s
1238	600-111	P-11 Critical Mass Laboratory Crib	Crib	Low-level plutonium waste	1949	1951	582272.88	142762.97			point	2.4	2.4			5.946	1	Liquid	116	F	4	116F-4	600-111	Rp-s	Rp-dn							2004	RTD			Rp-ds	30	2034	Rp-s
3783	600-117	300 Area Treated Effluent Disposal Facility (TEDF)	Process Unit/Plant		1994	2011	593723.23	117350.94			polygon	143.3	91.4			16187.430	1	Cement	300	R	4	300R-4	600-117	Rp-s	ABC							2011	RTD			Rp-ds	30	2041	Rp-s
3797	600-148_east	ERDF - eastern portion	Landfill (Lined)		1996	2033	571000.00	134435.00	4	(570250, 134225), (571750, 134225), (571750, 134645), (570250, 134645)	polygon	1500.0	432.0	20.0		648000.000	1	Soil-Debris/Cement	216	S	4	216S_ERDF_E-4	600-148_east	Rp-s	Rp-dn							2035	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2535	Wa-s
3797	600-148_west	ERDF - western portion	Landfill (Lined)		1996	2033	569500.00	134435.00	4	(568750, 134225), (570250, 134225), (570250, 134645), (568750, 134645)	polygon	1500.0	432.0	20.0		648000.000	1	Soil-Debris/Cement	216	S	4	216S_ERDF_W-4	600-148_west	Rp-s	Rp-dn							2035	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2535	Wa-s
3927	600-211	SALDS	Drain/Tile Field		1995	2028	566437.63	138090.11			line	61.0	35.4			2155.351	1	Liquid	216	T	4	216T-4	600-211	Rp-s	Rp-dn							2033	No Action			Rp-ds	30	2063	Rp-s
3907	600-214	600 Area Purgewater Storage and Treatment Facility, MODU-Tanks, 600-PSTF	Surface Impoundment	Water	1990	1990	576365.10	137417.77			polygon	121.92	60.96			7432.244	1	Liquid	200	E	4	2.00E-02	600-214	Ba-s	ABC							2033	No Action			Ba-ds	30	2063	Ba-s
4377	600-256		Unplanned Release	Chemical Release	1995	1995	570082.88	136496.39			Point					9.990	1	Liquid	200	T	4	200T-4	600-256	Rp-s	Rp-dn							2029	No Action			Rp-ds	30	2059	Rp-s
4394	600-259	Special Waste Form Lysimeter, Grout Waste Test Lysimeter	Laboratory		1984	1994	591500.00	121500.00				25.0	25.0			625.000	1	Soil-Debris	600	P	4	600P-4	600-259	Rp-s	Rp-dn							2012	RTD			Rp-ds	30	2042	Rp-s
1177	600-33		Burial Ground		1963	1963	565368.94	143846.78			point	6.1	6.1			37.210	1	Soil-Debris	116	C	4	116C-4	600-33	Eb-s	Eb-dn							2006	RTD			Eb-ds	30	2036	Eb-s
1759	600-58	H. J. Ashe Substation Oil/Water Separator and Drywells	French Drain		1988	2020	589348.04	127925.03						4.6		0.999	1	Liquid	616	M	4	616M-4	600-58	Rp-s	Rp-dn							2035	RTD			Rp-ds	30	2065	Rp-s
1760	600-59	H.J.Ashe Substation Storage Area	Storage		1976	1976	589323.19	127908.42			polygon	6.1	4.6			27.877	1	Soil-Debris	600	M	4	600M-4	600-59	Rp-s	Rp-dn							2035	RTD			Rp-ds	30	2065	Rp-s
1197	618-1		Burial Ground		1945	1951	594020.94	116233.76			polygon	97.5	45.7			3299.9159932	1	Soil-Debris	316	R	4	316R-4	618-1	Rp-s	Rp-dn							2010	RTD			Rp-ds	30	2040	Rp-s
1198	618-10		Burial Ground		1954	1963	590834.00	121723.23			polygon	152.4	152.4			23225.761	1	Soil-Debris	616	P	4	616P-4	618-10	Rp-s	Rp-dn							2011	RTD			Rp-ds	30	2041	Rp-s
1199	618-11		Burial Ground		1962	1967	588977.31	127263.38			polygon	304.8	114.3			34838.641	1	Soil-Debris/Cement	616	M	4	616M-4	618-11	Rp-s	Rp-dn							2012	RTD			Rp-ds	30	2042	Rp-s
1201	618-13		Burial Ground		1950	1950	592879.63	116237.92			polygon	38.1	15.2		7.62	580.644	1	Soil and Liquid	316	R	4	316R-4	618-13	Rp-s	Rp-dn							2012	RTD			Rp-ds	30	2042	Rp-s
1202	618-2		Burial Ground		1951	1954	594020.63	116360.78			polygon	106.7	65.5			6990.954	1	Soil-Debris	316	R	4	316R-4	618-2	Rp-s	Rp-dn							2006	RTD			Rp-ds	30	2036	Rp-s
1203	618-3		Burial Ground		1954	1955	593961.75	116367.56			polygon	121.9	51.2	4.572		6243.084	1	Soil-Debris	316	R	4	316R-4	618-3	Rp-s	Rp-dn							2006	RTD			Rp-ds	30	2036	Rp-s
1204	618-4		Burial Ground		1955	1961	593929.31	117011.69			polygon	178.7	68.1			12172.846	1	Soil-Debris	316	R	4	316R-4	618-4	Rp-s	Rp-dn							2003	RTD			Rp-ds	30	2033	Rp-s
1205	618-5		Burial Ground		1945	1962	594184.06	116830.02			polygon	96.0	56.0			5376.000	1	Soil-Debris	316	R	4	316R-4	618-5	Rp-s	Rp-dn							2008	RTD			Rp-ds	30	2038	Rp-s
1207	618-7		Burial Ground		1960	1973	593222.88	116585.24			polygon	216.1	202.4			43736.522	1	Soil-Debris	316	R	4	316R-4	618-7	Rp-s	Rp-dn							2008	RTD			Rp-ds	30	2038	Rp-s
1208	618-8		Burial Ground		1954	1954	593820.06	116409.59			polygon	182.9	30.5			5574.183	1	Soil-Debris	316	R	4	316R-4	618-8	Rp-s	Rp-dn							2012	RTD			Rp-ds	30	2042	Rp-s
1209	618-9		Burial Ground		1950	1956	592821.50	116325.00			polygon	56.4	12.2	4.572		687.483	1	Soil-Debris	316	R	4	316R-4	618-9	Rp-s	Rp-dn							1991	No Action			Rp-ds	30	2021	Rp-s
9967	6607-07	Septic system (6607-07)	Septic Tank	Sewage	1940	2000	559383.38	138399.94			point					9.990	2	Liquid	216	T	4	216T-4	6607-07	Rp-s	Rp-ds														

Site Identifiers			General Site Design and Operational History Information				Geographic Information				Facility Dimensions				Model-Specific Instructions							Remediation/Recharge Assumptions																	
WDS Site ID	WDS Site Code	WDS Site Names	Site Type	Waste/Material Type	Operational Start	Operational End	Center X-coordinate (E)	Center Y-coordinate (N)	Number of X, Y Coordinate Points	X, Y Coordinate String	GIS Feature Type	Site Length (m)	Site Width (m)	Site Depth/Height (m)	Site Diameter (m)	Site Area (m ²)	Selected for Simulation	Release Model Designation	VZ Template Site Type	Geographic Area	Waste Chemistry Group	VZ Base Template	Site Template	Pre-Operational Recharge Class	Operational Recharge Class	Year IRA-1 Complete	IRA-1 Type	IRA-1 Recharge Class	Year IRA-2 Complete	IRA-2 Type	IRA-2 Recharge Class	Year Remedial Action Complete	Remediation Type	Barrier Type	Barrier Recharge Class	Post-Remediation Recharge Class	Post-Remediation/Barrier Design Life	Post-Remediation/Barrier End Date	Final Long-Term Recharge Class
1361	UPR-200-E-50		Unplanned Release		1974	1974	575230.56	136925.58			point	137.2	22.9			3135.478	1	Soil-Debris	200	B	4	2008-4	UPR-200-E-50	El-s	El-dn						2034	RTD			El-ds	30	2064	El-s	
1363	UPR-200-E-52		Unplanned Release	Process Effluent	1975	1975	573598.38	136472.28			point	1.2	1.2			1.486	1	Liquid	200	B	4	2008-4	UPR-200-E-52	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1365	UPR-200-E-54		Unplanned Release	Water	1969	1969	573370.06	136448.67			point					0.999	1	Liquid	200	B	4	2008-4	UPR-200-E-54	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1366	UPR-200-E-55		Unplanned Release	Chemicals	1969	1969	573371.94	136439.94			point	30.5	30.5			929.030	1	Soil-Debris	200	B	4	2008-4	UPR-200-E-55	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1367	UPR-200-E-56		Unplanned Release	Process Effluent	1979	1979	575699.31	136431.48			polygon	30.5	30.5			929.030	1	Liquid	200	A	2	200A-2	UPR-200-E-56	Rp-s	Rp-dn						2016	No Action			Rp-ds	30	2046	Rp-s	
1370	UPR-200-E-6	UPR-200-E-6, UN-200-E-6, Contamination Around the 241-B-153 Diversion Box	Unplanned Release	Process Effluent	1954	1954	573765.94	137225.80			point					0.999	1	Liquid	200	B	2	200B-2	UPR-200-E-6	El-s	G-dn						2026	ABAR2EBTF	ET-Cap	RCRA C-116	RCRA C-116	500	2526	Wa-s	
1381	UPR-200-E-7		Unplanned Release		1954	1954	573682.44	136647.95			point					2.787	1	Liquid	200	B	2	200B-2	UPR-200-E-7	El-s	El-dn						2022	RTD			El-ds	30	2052	El-s	
1384	UPR-200-E-73		Unplanned Release		1954	1954	573763.56	137188.27			point					0.999	1	Liquid	200	B	2	200B-2	UPR-200-E-73	El-s	El-dn						2026	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2526	Wa-s	
1385	UPR-200-E-74	UPR-200-E-74, UN-216-E-2, 241-B-152 Diversion Box Contamination, UN-200-E-74	Unplanned Release	Process Effluent	1954	1954	573750.19	137197.64			point			1.0		4.645	1	Soil-Debris/Liquid	200	B	2	200B-2	UPR-200-E-74	El-s	El-dn						2026	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2526	Wa-s	
1386	UPR-200-E-75	UPR-200-E-75, UN-216-E-3, 241-B-153 Diversion Box Contamination, UN-200-E-75	Unplanned Release	Process Effluent	1954	1954	573765.94	137225.80			point	30.5	15.2			464.515	1	Liquid	200	B	2	200B-2	UPR-200-E-75	El-s	El-dn						2026	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2526	Wa-s	
1388	UPR-200-E-77		Unplanned Release		1946	1946	573798.63	136448.77			point					0.999	1	Liquid	200	B	2	200B-2	UPR-200-E-77	El-s	El-dn						2022	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1389	UPR-200-E-78		Unplanned Release		1955	1955	573675.19	136951.19			point					18.000	1	Liquid	200	B	2	200B-2	UPR-200-E-78	El-s	El-dn						2027	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2527	Wa-s	
1390	UPR-200-E-79		Unplanned Release		1953	1953	573857.50	137180.38			point	61.0	7.6			464.515	1	Liquid	200	B	2	200B-2	UPR-200-E-79	El-s	El-dn						2026	No Action			El-ds	30	2056	El-s	
1391	UPR-200-E-80		Unplanned Release		1946	1946	573594.44	136441.86			point	152.4	30.5			4645.152	1	Liquid	200	B	4	200B-4	UPR-200-E-80	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1392	UPR-200-E-81		Unplanned Release		1969	1969	575121.25	136467.73			point	12.2	1.8			22.297	1	Liquid	200	A	2	200A-2	UPR-200-E-81	Rp-s	Rp-dn						2016	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s	
1393	UPR-200-E-82		Unplanned Release		1969	1969	575032.63	136543.67			point					0.999	1	Liquid	200	A	2	200A-2	UPR-200-E-82	Rp-s	Rp-dn						2016	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s	
1395	UPR-200-E-84	Release from 241-ER-151 Catch Tank	Unplanned Release		1953	1953	573232.88	136266.20			point					0.999	1	Liquid	200	B	2	200B-2	UPR-200-E-84	El-s	El-dn						2022	RTD/ABAR2E2	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1396	UPR-200-E-85		Unplanned Release		1972	1972	573488.25	136443.84			point	15.2	15.2	4.6		232.258	1	Liquid	200	B	4	200B-4	UPR-200-E-85	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1397	UPR-200-E-86		Unplanned Release		1971	1971	575034.25	136505.58			point	6.1	6.1	6.1		37.161	1	Liquid	200	A	2	200A-2	UPR-200-E-86	Rp-s	Rp-dn						2016	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2516	Wa-s	
1398	UPR-200-E-87		Unplanned Release		1945	1953	573439.19	136379.17			point	4.5	4.6			20.555	1	Liquid	200	B	4	200B-4	UPR-200-E-87	El-s	El-dn						2022	ABAR w/ B Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2522	Wa-s	
1401	UPR-200-E-9		Unplanned Release		1955	1955	573608.25	137603.31			point					925.278	1	Liquid	200	B	2	200B-2	UPR-200-E-9	El-s	El-dn						2026	IBAR	ET-Cap	RCRA C-18	RCRA C-18	500	2526	Wa-s	
1411	UPR-200-E-99		Unplanned Release	Soil	1969	1969	575223.69	136388.94			point					0.999	1	Soil-Debris	200	A	2	200A-2	UPR-200-E-99	Rp-s	Rp-dn						2016	RTD			Rp-ds	30	2046	Rp-s	
1413	UPR-200-W-100	UPR-200-W-100, UN-216-W-8, 105-TX to 118-TX Process Line Leak, UN-200-W-100	Unplanned Release		1954	1954	566744.06	136186.31			point	30.5	38.1			1161.288	1	Liquid	200	T	2	200T-2	UPR-200-W-100	Rp-s	Rp-dn						2031	ABAR	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s	
1414	UPR-200-W-101	221-U Acid Spill R-1 through R-5	Unplanned Release	Reclaimed acid	1957	1957	567558.63	135170.69																															

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1553	UPR-200-W-87	UPR-200-W-87, UN-216-W-87, Radioactive Spill from Filter Housing, UN-200-W-87	Unplanned Release	Chemicals	1969	1969	567474.13	133924.58			point					2.787	1	Liquid	200	S	4	200S-4	UPR-200-W-87	Rp-s	Rp-dn						2030	ABAR w/ REDOX	ET-Cap	RCRA C-18	RCRA C-18	500	2530	Wa-s	
1556	UPR-200-W-90	UPR-200-W-90, Radioactive Contamination South of 236-Z Building, UN-216-N-90, UN-200-W-90	Unplanned Release	Chemicals	1969	1969	566539.00	135574.03			point					6.503	1	Soil-Debris	200	S	4	200S-4	UPR-200-W-90	Rp-s	Rp-dn					2017	No Action			Rp-ds	30	2047	Rp-s		
1558	UPR-200-W-95		Unplanned Release		1951	1954	566978.38	133891.88			polygon	39.6	39.6			1570.061	1	Liquid	200	S	4	200S-4	UPR-200-W-95	Rp-s	Rp-dn					2016	No Action			Rp-ds	30	2046	Rp-s		
1559	UPR-200-W-96		Unplanned Release		1969	1969	567328.50	134015.98			point					125.419	1	Liquid	200	S	4	200S-4	UPR-200-W-96	Rp-s	Rp-dn					2030	RTD			Rp-ds	30	2060	Rp-s		
1560	UPR-200-W-97	UPR-200-W-97, Transfer Line Leak, UN-216-W-5, UN-200-W-97	Unplanned Release		1966	1966	566902.81	136595.44			point			0.9		0.999	1	Liquid	200	T	2	200T-2	UPR-200-W-97	Rp-s	G-dn					2031	ABAR2W03/T WMA	ET-Cap	RCRA C-18	RCRA C-18	500	2531	Wa-s		
1561	UPR-200-W-98	UPR-200-W-98, UN-216-W-6, 221-T at R-19 Waste Line Break, UN-200-W-98	Unplanned Release		1945	1945	567510.69	136736.73			point					0.999	1	Liquid	200	T	2	200T-2	UPR-200-W-98	Rp-s	Rp-dn					2033	ABAR w/ T Plant	ET-Cap	RCRA C-18	RCRA C-18	500	2533	Wa-s		
1563	UPR-300-1		Unplanned Release		1969	1969	594171.31	115927.14			point				3.7	0.999	1	Liquid	300	R	4	300R-4	UPR-300-1	Rp-s	Rp-dn					2011	RTD			Rp-ds	30	2041	Rp-s		
1564	UPR-300-10		Unplanned Release		1977	1977	593949.25	115795.88			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-10	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1565	UPR-300-11		Unplanned Release		1977	1977	594171.00	115929.57			point	0.6	0.9	7.6		0.557	1	Liquid	300	R	4	300R-4	UPR-300-11	Rp-s	Rp-dn					2011	RTD			Rp-ds	30	2041	Rp-s		
1566	UPR-300-12		Unplanned Release		1979	1979	594024.81	115789.26			polygon	12.2	0.3			3.716	1	Liquid	300	R	4	300R-4	UPR-300-12	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1573	UPR-300-2		Unplanned Release		1954	1977	594176.50	115935.44			polygon					240.686	1	Liquid	300	R	4	300R-4	UPR-300-2	Rp-s	Rp-dn					2011	RTD			Rp-ds	30	2041	Rp-s		
1586	UPR-300-32		Unplanned Release		1974	1974	594290.13	116037.09			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-32	Rp-s	Rp-dn					2001	RTD			Rp-ds	30	2031	Rp-s		
1588	UPR-300-34		Unplanned Release		1973	1973	594290.13	116037.09			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-34	Rp-s	Rp-dn					2001	RTD			Rp-ds	30	2031	Rp-s		
1590	UPR-300-36		Unplanned Release		1973	1973	594290.13	116037.09			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-36	Rp-s	Rp-dn					2001	RTD			Rp-ds	30	2031	Rp-s		
1591	UPR-300-37		Unplanned Release		1972	1972	594290.13	116037.09			point					3124.040	1	Liquid	300	R	4	300R-4	UPR-300-37	Rp-s	Rp-dn					2001	RTD			Rp-ds	30	2031	Rp-s		
1592	UPR-300-38		Unplanned Release		1954	1989	593848.81	116106.30			point					12.917	1	Liquid	300	R	4	300R-4	UPR-300-38	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1593	UPR-300-39	UPR-300-39, UN-300-39, Sodium Hydroxide Leak at 311 Tank Farm	Unplanned Release	Chemicals	1954	1954	593901.56	116110.72			polygon					0.999	1	Liquid	300	R	4	300R-4	UPR-300-39	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1594	UPR-300-4		Unplanned Release		1945	1955	593794.63	115856.96			polygon	30.5	30.5	6.1		929.030	1	Liquid	300	R	4	300R-4	UPR-300-4	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1595	UPR-300-40		Unplanned Release		1974	1974	593891.68	116112.02			polygon					25.948	1	Liquid	300	R	4	300R-4	UPR-300-40	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1600	UPR-300-45		Unplanned Release		1985	1985	593895.88	116107.51			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-45	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1758	UPR-300-48		Unplanned Release		1991	1991	594000.00	115760.00			point					0.999	1	Liquid	300	R	4	300R-4	UPR-300-48	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1602	UPR-300-5		Unplanned Release		1973	1973	594161.88	115662.42			point	1.2	6.1	0.5		7.432	1	Liquid	300	R	4	300R-4	UPR-300-5	Rp-s	Rp-dn					2012	RTD			Rp-ds	30	2042	Rp-s		
1606	UPR-300-FF-1		Unplanned Release		1945	1990	594152.06	116283.70			point					0.999	1	Soil-Debris	300	R	4	300R-4	UPR-300-FF-1	Rp-s	Rp-dn					2003	RTD			Rp-ds	30	2033	Rp-s		

Note: The WIDS Site Codes have been modified to replace blank spaces with "." and "&" with "%". Except for sites 200-W-PP, 2101-M-POND, 303-M-SA, and 303-M-UOF, where "-" were used instead of blanks, per e-mail from R. Aaberg (8-8-03).

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