CHPRC-02895
Revision 0

Evaluation of Remaining Site Verification Packages Approved After Transmittal of the Rev. 0 Remedial Investigation/Feasibility Study for the 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units, DOE/RL-2010-95

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

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

P.O. Box 1600
Richland, Washington 99352

Approved for Public Release;
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D. L. Morgans
CH2M HILL Plateau Remediation Company

A. Ali
INTERA, Inc.

P. Allena
INTERA, Inc.

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P.O. Box 1600
Richland, Washington 99352

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TECHNICAL MEMORANDUM

Evaluation of Remaining Site Verification Packages Approved after Transmittal of the Rev. 0 Remedial Investigation/Feasibility Study for the 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units, DOE/RL-2010-95

Prepared for:	John Virgin, Mike Drewett (100-D/H)
Prepared by:	DL Morgans, P Allena, and A Ali
CCs:	WE Nichols
	AH Aly
	Correspondence Control – MSIN – G3-39
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1. Introduction

The purpose of this technical memorandum is to compare the exposure point concentrations (EPC) (95 percent upper confidence limit (UCL) or maximum concentration) published in closeout documentation to soil screening levels (SSLs) and preliminary remediation goals (PRGs) for groundwater protection, surface water protection, and human health direct contact which are currently published in the Remedial Investigation/Feasibility Study (RI/FS) for the 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units (DOE/RL-2010-95). The cleanup verification documents considered in this technical memorandum published comparisons of EPCs to remedial action goals (RAGs) published in the *Remedial Design Report/Remedial Action Work Plan for the 100 Area* (DOE/RL-96-17) to determine if the remediated waste site could be interim closed out. The results of the comparisons provided in memorandum confirmed that all evaluated interim-closed waste sites also meet soil screening levels (SSLs) and preliminary remediation goals (PRGs) for groundwater protection, surface water protection. Two remediated waste sites (118-D-2:1 and 100-H-54) require an additional 10 years of decay to meet the cumulative cancer risk threshold of 1×10^{-4} for human health direct contact.

2. Background

The Remedial Investigation/Feasibility Study for the 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units, DOE/RL-2010-95, Revision 0 was transmitted to Department of Ecology and the U.S. Environmental Protection Agency in compliance with Section 9.2 of the Hanford Facility Agreement and Consent Order on October 17, 2014. Since the Rev. 0 submittal of DOE/RL-2010-95, additional waste sites have been remediated under the Interim Action ROD. Cleanup verification documents reporting residual soil concentrations have been approved by the Tri-parties for each of 101 remediated waste sites. Five closeout documents (100-D-71, 100-D-80:2, 100-D-83:2, 100-D-98:3, 600-380) represent media other than soil (i.e., pipe scale, rubblized concrete and asbestos). This memorandum presents a streamlined evaluation to determine if residual soil concentrations meet the

SSLs and PRGs for groundwater protection, surface water protection, and human health direct contact which are currently published in DOE/RL-2010-95.

3. Methodology

The methodologies used to compare EPCs to SSLs and PRGs developed for protection of groundwater, protection of surface water and calculation of cumulative cancer risks and noncancer hazards for the human health direct contact pathway are described in this section.

3.1 Evaluation of Groundwater Protection and Surface Water Protection

The methodology for comparison of EPCs to SSLs and PRGs developed for protection of groundwater and protection of surface water is as follows

1. Review closeout documents for the waste sites remediated after the cut-off date identified in DOE/RL-2010-95 (this set is listed in the Assumptions and Inputs section) to identify all COPCs that exceed the 90th percentile Hanford Site background and require evaluation with scaling of SSLs and PRGs by waste site dimension.
2. Enter each EPC listed in the closeout documentation that is greater than background into an Excel spreadsheet; EPCs less than the 90th percentile Hanford site background concentration were noted as <BG. Perform independent check for accuracy of input of EPC values. Note, this step was performed because an electronic version of these data was not available.
3. Compare the EPCs for each waste site decision unit to the unit-length SSL for protection of groundwater and protection of surface water. The methodology and inputs used to perform this comparison is consistent with that presented in Section 3 and Section 4, respectively, of ECF-100-DR1-11-0078, *Comparison of 100-DR-1, 100-DR-2, 100-HR-1, and 100-HR-2 Source Operable Unit Exposure Point Concentrations to Soil Screening Levels Protective of Groundwater and Soil Screening Levels Protective of Surface Water*.
4. When an EPC is greater than the final SSL, then it is compared to the unit-length PRG for protection of groundwater or protection of surface water
5. Enter the following data into a spreadsheet:
    a. Identify waste site name (Column A)
    b. Identify the waste site decision unit code for reference in determination of a representative site length (Column B);
    c. Enter the CAS No. (Column C) and contaminant name (Column D);
    d. Enter the EPC; noting that only EPCs greater than background were evaluated and the EPC was either a 95 percent UCL or maximum value (Column E);
    e. Enter the remedial action goal from DOE/RL-96-17; *Remedial Design Report/Remedial Action Work Plan for the 100 Area* (Column F)
    f. Enter the unit-length SSL or PRG (Column G) for each contaminant (identified in Column D)
    g. Enter the representative waste site dimension (Column H) and note basis (Column I).

   h. Enter the required detection limit (RDL) from those listed in DOE/RL-96-17 (Column L) and the 90th percentile Hanford site background value (Column K);

6. Determine a scaled cleanup level for each contaminant (Column M):

   a. Divide the unit length SSL (Column G) by the representative lineal distance determined in Step 5g (Column H).

   b. Determine the final SSL or PRG for EPC comparison by determining the maximum of the RDL, Hanford site background, and the scaled SSL (Column X) and identify the basis (Column (M).

7. Compare the EPC to the final SSL:

   a. If the EPC is greater than the final SSL, then indicate "Yes" and highlight cell in yellow

   b. If the EPC is less than the final SSL, then indicate "No"

8. Apply the following considerations for any EPC greater than the final SSL:

   a. Identify any exceedance if it was also identified as an exceedance in the closeout documentation

   b. If not, determine if the EPC is a representative concentration

3.2 Evaluation of Human Health Direct Contact Pathway

The methodology used to calculate total cancer risk for radionuclides, total cancer risk for chemicals, and total noncancer hazards for chemicals from the human health direct contact pathway is as follows:

1. Enter each of the EPCs that is greater than background into a Excel spreadsheet; EPCs less than the 90th percentile Hanford site background concentration were noted as <BG. Perform independent check for accuracy of input of EPC values.

2. Calculate the cancer risk for individual radioisotopes and individual carcinogenic chemicals. Calculate the noncancer hazard quotients for individual noncarcinogenic chemicals. Calculate the total cancer risk for radionuclides and determine that the total risk is less than 1×10^{-4}. Calculate the total cancer risk for chemicals and determine that the total cancer risk is less than the 2007 MTCA WAC 173-708(5) target risk of 1×10^{-5} for unrestricted land use. Calculate the total noncancer hazard index (HI) for chemicals and determine that the HI does not exceed the 2007 MTCA WAC 173-708(5) target HI for unrestricted land use. The methodology and inputs used to perform this evaluation is consistent with that presented in Section 3 and Section 4, respectively, of ECF-100-DR1-11-0005, *Human Health Risk Evaluation for the 100-DR-1, 100-DR-2, 100-HR-1, and 100-HR-2 Source Operable Units*.

3. If the target cancer risk is greater than 1×10^{-4} for a waste site decision unit, then determine the year the cumulative cancer risk of 1×10^{-4} is achieved.

4. Enter the following data into a spreadsheet:

   a. Identify waste site name (Column A);

   b. Identify the waste site decision unit (Column B)

c. Enter the CAS No. (Column C) and contaminant name (Column D);

d. Enter the analyte group; radionuclide (Rad) or nonradionuclide (Non-Rad) (Column E)

e. Enter the EPC; noting that only EPCs greater than background were evaluated and the EPC was either a 95 percent UCL or maximum value (Column F);

f. Enter the cancer effects PRG from ECF-Hanford-10-0429 for radionuclides or the cancer effects PRG for chemicals from ECF-Hanford-10-0444

g. Calculate the individual cancer risk and total cancer risks for radionuclides and nonradionuclides (Column H) (see equations below)

h. Calculate the percent contribution to cancer risk (Column I) (see equations below)

i. Enter the noncancer effects PRG for chemicals from ECF-Hanford-10-0444 for chemicals (Column J)

j. Calculate the individual noncancer haard quotient and the total noncancer effects hazard index (HI) for chemicals (Column K) (see equations below)

k. Calculate the percent contribution to cancer HI (Column L) (see equations below)

To estimate the cancer risks from exposure to an individual carcinogen from all exposure routes considered, the following equation is used:

$$Risk_I = \frac{EPC_{soil}}{PRG_{carcinogen}} \times TR$$

where:

$Risk_I$ = ELCR for individual chemical or radioisotope (unitless)

EPC_{soil} = EPC in soil (µg/kg or pCi/g)

$PRG_{carcinogen}$ = Soil PRG based on 10^{-6} carcinogenic effect for chemicals (µg/kg) or 10^{-4} carcinogenic effect for radioisotopes (pCi/g)

TR = Target cancer risk of 10^{-6} for individual chemicals or 10^{-4} for individual radioisotopes

To estimate the total cancer risks from exposure to multiple carcinogens from all exposure routes considered, the following equation is used.

$$Risk_T = \sum_i \frac{EPC_{soil}}{PRG_{carcinogen}} \times TR$$

where:

RiskT = *Total ELCR for all chemicals and radioisotopes*

EPC_{soil} = EPC in soil (µg/kg or pCi/g)

$PRG_{carcinogen}$	=	Soil PRG based on 10^{-6} carcinogenic effect for chemical (µg/kg) or 10^{-4} carcinogenic effect for radioisotope (pCi/g)
$TR_{individual}$	=	Target cancer risk of 10^{-6} for individual hazardous substance or 10^{-4} for radioisotope
i	=	The sum of the ratios for the ith chemical or radioisotope

To estimate the HQ from all exposure routes considered for an individual chemical, the following equation is used:

$$HQ = \frac{EPC_{soil}}{PRG_{noncarcinogen}}$$

where:

HQ	=	hazard quotient for individual chemical
EPC_{soil}	=	EPC in soil (µg/kg)
$PRG_{noncarcinogen}$	=	PRG based on HQ=1 noncarcinogenic effects (µg/kg)

To estimate the total HI from all exposure routes considered for multiple chemicals, the following equation is used.

$$HI_T = \sum_i \frac{EPC_{soil}}{PRG_{noncarcinogen}}$$

where:

HI_T	=	Total HI for all chemicals
EPC_{soil}	=	EPC in soil (µg/kg)
$PRG_{noncarcinogen}$	=	PRG based on HQ=1 noncarcinogenic effects (µg/kg)
T	=	The sum of the ratios for the ith chemical

4. Inputs

The following inputs were used to complete the evaluation described in this technical memorandum.

4.1 Closeout Documentation

Closeout documentation for waste sites remediated post-RI/FS was obtained from the administrative record. A total of 101 remediated waste sites were reported with residual soil concentrations. Only soil EPCs from shallow decision units (greater than 4.6 m (15 feet) below ground surface (bgs) and deep decision units (less than 4.6 m (15 ft) bgs) were compared to the scaled SSLs and PRGs for groundwater protection and surface water protection. Soil EPCs from overburden stockpiles and staging areas were not included in the evaluation for groundwater protection or surface water protection, however they were included in the cumulative human health direct contact evaluation.

Below is a summary of the waste site reclassification form #, the remediated waste site number, and the remediated waste site name included in this evaluation. A summary of the remediated waste sites and associated decision units is provided in Table 1.

1. WSRF-2012-016, 100-D-8, 105-DR Sewer outfall
2. WSRF 2006-032, 100-D-14, Unnumbered Septic System (B); Unnumbered septic Tank #2
3. WSRF-2009-049, 100-D-30, Sodium Dichromate Soil Contamination
4. WSRF 2015-004, 100-D-31:11, 182-D and 183-D Sewer Pipelines
5. WSRF 2015-005, 100-D-31:12, 183-D West Process Sewer Pipelines
6. WSRF 2012-101, 100-D-50:1, Emergency Discharge Pipeline
7. WSRF 2012-026, 100-D-50:4, Gas Recirculation Pipelines
8. WSRF 2013-011, 100-D-50:6, 183-DR Clearwell Pipelines
9. WSRF 2014-007, 100-D-50:7, Headhouse Floor Drain and Catch Basins Pipelines
10. WSRF 2012-074, 100-D-50:8, 117-DR Condensate Drain Pipelines
11. WSRF 2012-094, 100-D-50:9, 1607-DR3 Sanitary Sewer Pipelines
12. WSRF 2013-077, 100-D-62, 183-DR Head House Septic Tank
13. WSRF 2012-072, 100-D-65, 116-D-5 Outfall Spillway
14. WSRF 2012-087, 100-D-66, 116-DR-5 Outfall Spillway
15. WSRF 2014-117, 100-D-69, Sodium Dichromate Found Near Pacific Avenue and Paddock Street
16. WSRF-2013-080, 100-D-71, Vertical Safety Rod Tower Components
17. WSRF 2015-003, 100-D-72, 183-D Acid Facility
18. WSRF 2012-076, 100-D-73, 108-D Chemical Pump House
19. WSRF 2015-023, 100-D-75:1, 151-D Primary Electrical Substation Subsite
20. WSRF 2014-092, 100-D-75:2, 153-E1-D Secondary Electrical Substation, Substation C4-S1 Subsite
21. WSRF-2012-077, 100-D-76, Potential Crib Next to 108D; Potential Former 116-D-3 Crib
22. WSRF 2013-078, 100-D-77, 183-DR Head House Septic Tank
23. WSRF 2012-052, 100-D-78, Yellow Stained Soils
24. WSRF 2015-002, 100-D-81, 100D Burn Areas and Other Stained Areas
25. WSRF-2013-079, 100-D-83:1, 183-DR Acid Addition Pipeline
26. WSRF 2014-101, 100-D-83:3, 108-D Acid Addition Facility Pipelines
27. WSRF 2014-021, 100-D-83:5, 186-D Acid Neutralizing System Pipelines and Reactor Cooling Water Pipelines
28. WSRF 2014-096, 100-D-84:2, Sanitary Sewer Pipelines – Areas 3 and 4 Subsite
29. WSRF 2015-020, 2015, 100-D-85:2, 100-DR Reactor Effluent Pipelines
30. WSRF 2015-019, 100-D-86:1, 100-D-Gas Recirculation Pipelines
31. WSRF 2015-016, 100-D-86:3, 105-DR Fan Room Sewer Pipelines
32. WSRF 2009-005, 100-D-96:1, 100-D/DR Additional French Drains Group 1 Subsite
33. WSRF 2014-102, 100-D-96:2, 100-D/DR Additional French Drains Group 2
34. WSRF 2014-116, 100-D-97, 184-DA 500-Gallon Fuel Tank
35. WSRF-2012-082, 100-D-98:2, 152D Substation Subsite

36. WSRF-2015-011, 100-D-99, Two Suspect Features Identified by Ground Penetrating Radar
37. WSRF-2014-025, 100-D-100, Stained Soil Near the 183-DR Railroad Track
38. WSRF-2012-062, 100-D-101, 108-D Acid Pit and Sump Storage
39. WSRF-2012-057, 100-D-102, Suspect Effluent Leak Adjacent to 107-DR Basin
40. WSRF-2013-045, 100-D-103, Suspected Trench and French Drain from 116-D-8 Cask Pad
41. WSRF-2014-119, 100-D-104, Unplanned Release Near 185-D Sodium Dichromate Storage Tank and Acid Neutralization French Drain
42. WSRF-2013-122, 100-D-105, D/DR-Area Pipelines Discovered During Remediation
43. WSRF-2014-104, 100-D-106, 1607-D1 Influent Pipelines
44. WSRF-2013-113, 100-D-107, Soil Beneath the 1713-DA Essential Materials Warehouse
45. WSRF-2012-036, 116-DR-3, 105-DR Storage Basin Trench
46. CVP-2012-00002, 118-D-2:1, 100-D Burial Ground No. 2 Trenches and Disposal Pits
47. CVP-2012-00003, 118-D-2:2, 100-D Burial Ground No. 2 Anomaly Characterization Area
48. CVP-2012-00001, 118-D-3:1, 100-D Burial Ground No. 3 and Process Cells
49. CVP-2012-00004, 118-D-3:2, Fuel and Anomaly Characterization Area
50. WSRF 2008-046, 126-DR-1 Waste Site
51. WSRF-2014-103, 1607-D2:5, Inlet Pipe to Replacement System Tile Field
52. WSRF-2015-052, 100-H-28:2, South Process Sewers
53. WSRF -2015-027, 100-H-28:3, North Process Sewers
54. WSRF-2014-118, 100-H-28:4, 1607-H1 Sanitary Sewer Pipelines
55. WSRF -2015-027,100-H-28:5, 1607-H2 Sanitary Sewer Piplines
56. WSRF-2009-030, 100-H-28:7, 183-H Process Water Lines
57. WSRF-2015-053, 100-H-42, 1906-H Drainage lift station
58. WSRF-2014-110, 100-H-43, 1716-H Maintenance Garage, Repair Shop
59. WSRF-2015-029, 100-H-44, 183-H Neutralization Pit
60. WSRF-2014-003, 100-H-46, 190-H Potential Contaminated Soil
61. WSRF-2013-126, 100-H-48, 184-HA Underground Fuel Oil Tanks Associated Piping
62. WSRF-2014-111, 100-H-49:1, 184-H Boiler House and 1717-H Hot Shop French Drains Subsite
63. RSVP-2014-115, 100-H-51:1, 1703-H Sanitary Sewer Segment Subsite
64. WSRF-2015-025, 100-H-51:2, 117-H Seal Pit Crib Feedline subsite
65. WSRF-2014-097, 100-H-51:3, 184-H Brine Discharge Line
66. WSRF-2014-098, 100-H-51:6, Carbon Steel Pipe Subsites
67. WSRF-2013-126, 100-H-52, 184-HA Septic Drain Field and Associated Piping
68. WSRF 2013-131, GPERS 100-H Shoreline Survey UPR Waste Site
69. WSRF-2014-063, 100-H-56, H-Area Miscellaneous Pipelines
70. WSRF-2013-115, 100-H-57, Water Tower Foundations at 100-H
71. WSRF-2015-013, 100-H-59:1, 100-H Area Railroad Track Soil Contamination Area Subsite
72. WSRF-2015-074, 100-H-59:2, Debris Piles Near 100-H Area Railroad Track Subsite

73. WSRF-2006-006, 126-H-2, 183-H Clearwells/Disposal Pit
74. WSRF-2006-050, 132-H-3, 1608-H Effluent Pumping Station
75. WSRF-2013-116, 600-381, Segment 4 Underground Structure with Wooden Air Vents Feature
76. WSRF-2014-026, 600-382:1 through 600-382:5, Segment 4 Oil Stains and Filter Area #3
77. WSRF-2014-023, 600-383:1, through 600-383:10, Segment 4 Battery Remnant Area # 2
78. WSRF-2014-008, 600-384:1 through 600-384:5 Segment 4 Stained Soil Area #3

4.2 Soil Screening Levels and Preliminary Remediation Goals

Unit-length SSLs and PRGs for groundwater protection and surface water protection are documented in ECF-Hanford-11-0063, *STOMP 1-D Modeling for Determination of Soil Screening Levels and Preliminary Remediation Goals for Waste Sites in the 100-D and 100-H Source Operable Units*. Direct contact human health PRGs for radionuclides are documented in ECF-Hanford-10-0429, *Documentation of Preliminary Remediation Goals (PRGs) for Radionuclides Using the IAROD Exposure Scenario for the 100 and 300 Area Remedial Investigation/Feasibility Study (RI/FS)*. Direct contact human health PRGs for chemicals are documented in ECF-Hanford-10-0444, *Documentation of Standard Method B Soil Cleanup Levels for Unrestricted Land Use*. Note that remedial action goals (RAGs) for hexavalent chromium and total petroleum hydrocarbons (TPH) fractions that are published in DOE/RL-96-17, *Remedial Design Report/Remedial Action Work Plan for the 100 Area* are the same values as those recommended in DOE/RL-2010-95. As a result, no additional comparisons were performed for groundwater and surface water protection.

4.3 Representative Lineal Dimensions

Determine a representative dimension in the general direction of groundwater flow for each waste site decision unit evaluated for data entered in step 5c, drawing upon geographic information systems (QMAP), maps of surveyed sample locations and excavated areas where provided in closeout documents. The representative dimension is to approximate a median distance across each waste site decision unit in the general direction of groundwater flow; use of QMAP with general hydraulic head contours displayed for groundwater is used to aid in identifying this general direction. Review information in the closeout documents to ascertain if there are other limiting factors on the appropriate lineal dimension to apply. Apply default assumption that pipelines are lineal features for which scaling is inappropriate and default to 1.0 m for representative dimension.

5. Results

The results of comparing EPCs to unit-length SSLs groundwater protection and surface water protection are provided in Section 5.1. The results of the evaluating total cancer risks and noncancer hazards for the human health direct contact pathway are provided in Section 5.2.

5.1 Comparison of EPCs to SSLs for Protection of Groundwater and Protection of Surface Water

Comparison of the 100-D Source OU waste site decision unit EPCs to scaled soil screening levels for groundwater protection and surface water protection are presented in Tables 2 and 3, respectively. Comparison of the 100-H Source OU waste site decision unit EPCs to scaled soil screening levels for groundwater protection and surface water protection are presented in Tables 4 and 5, respectively.

Unit-length soil screening levels are scaled by the representative length of each waste site decision unit in the general direction of groundwater flow for comparison to EPC values.

The final SSL is the highest value between the unit-length soil screening level scaled by the representative length of each waste site decision unit in the general direction of groundwater flow and the RDL. Comparison results shown in Table 2 indicate the 100-D Source OU has the following five COPCs for groundwater protection:

- Anthracene, cadmium, copper, fluorene, nitrogen as nitrate and nitrite, and sulfate.

Comparison results shown in Table 3 and Table 5 indicate the 100-D and 100-H Source OUs have the following three COPCs for surface water protection:

- Cadmium, copper and selenium.

As shown in Table 4, all EPCs from the 100-H Source OU were less than the final SSLs for groundwater protection.

All of the contaminants EPCs greater than their respective final SSL are further evaluated. This evaluation consists of reviewing individual reported sample concentrations from each decision unit. For example, the EPC is reviewed to determine if it represents a uniform distribution or whether it represents a maximum concentration from a single detection above the SSL. Additionally, individual sample concentrations are reviewed to determine if they are within the range of naturally occurring levels. The results of this evaluation are presented in Table 6 for EPCs greater than SSLs for groundwater protection at 100-D and Tables 7 and 8 for surface water protection at 100-D and 100-H, respectively. The findings of the evaluation indicate that waste site decision units do not need to be carried forward for comparison to PRGs for protection of groundwater or protection of surface water (that is, conditions constrained to recharge from natural conditions).

For information purposes, Tables 2 through 5 also provide a comparison of EPCs to the remedial action goal for protection of groundwater or protection of the river.

5.2 Evaluation of Human Health Direct Contact Exposure Pathway

Total cancer risk for radionuclides, total cancer risk for chemicals, and total noncancer hazards for chemicals from the human health direct contact pathway are presented in Table 9. All remediated waste site/decision units with at least one detection above the Hanford Site background value were evaluated. Of the 101 remediated waste sites evaluated (see Table 1 for a complete list of remediated waste sites and associated decision units), five remediated waste site decision units were reported with a total ELCR greater than the upper risk threshold of 1×10^{-4} was reported at four remediated waste sites.

- The 100-D-8 shoreline segment is reported with a total radiological ELCR of 1.3×10^{-4}. The primary contributors to risk include europium-152 (5.3×10^{-5}; 40 percent contribution), strontium-90 (3.1×10^{-5}; 23 percent contribution), and cobalt-60 (2.9×10^{-5}; 22 percent contribution). Activities of all radionuclides decay to a total ELCR of 1×10^{-4} by year 2016.
- The 118-D-2:1 (shallow focused decision unit) is reported with a total radiological ELCR of 1.3×10^{-4}. The primary contributors to risk include strontium-90 (8.9×10^{-5}; 85 percent contribution) and cesium-137 (3.7×10^{-5}; 35 percent contribution). Activities of all radionuclides decay to a total ELCR of 1×10^{-4} by year 2019.

- The 100-H-54 (shallow decision unit) is reported with a total radiological ELCR of 1.6×10^{-4}. The primary contributors to risk include cesium-137 (1.0×10^{-4}; 64 percent contribution) and europium-152 (5.6×10^{-5}; 35 percent contribution). Activities of all radionuclides decay to a total ELCR of 1×10^{-4} by year 2026.

- The 132-H-3 (shallow decision unit) is reported with a total radiological ELCR of 1.1×10^{-4}. The primary contributors to risk include strontium-90 (7.8×10^{-5}; 71 percent contribution) and europium-152 (2.8×10^{-5}; 25 percent contribution). Activities of all radionuclides have decayed to a total ELCR of 1×10^{-4} by year 2013.

6. References

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Table 1. Summary of 100-DH Source OU Remediated Waste Sites, Decision Units, and Reclassification Status

Waste Site Name	Waste Site/Decision Unit	Reclassification Status
100-D-8	100-D-8 Shallow 100-D-8 Overburden 100-D-8 Staging Pile	Interim Closed Out
100-D-14	100-D-14 Shallow 100-D-14 Staging Pile	Interim Closed Out
100-D-30, 100-D-50:7, and 100-D-104	100-D-30 and 100-D-104_Shallow_1 100-D-30 and 100-D-104_Shallow_2 100-D-30 and 100-D-104_Shallow_3 100-D-30 and 100-D-104_Shallow_4 100-D-30 and 100-D-104_Shallow_5 100-D-30 and 100-D-104_Shallow_6 100-D-30 and 100-D-104_Shallow_7 100-D-30 and 100-D-104_Shallow_8 100-D-30 and 100-D-104_SPA2 100-D-30 and 100-D-104_SPA3 100-D-30 Tier II SPA 100-D-30 Tier III SPA 100-D-30 and 100-D-104_OB West Lift 1 100-D-30 and 100-D-104_OB West Lift 2 100-D-30 and 100-D-104_OB Lift 1 100-D-30 and 100-D-104_OB Lift 2 100-D-30 and 100-D-104_OB3EVL1 Lift 1 100-D-30 and 100-D-104_OB3EVL2 Lift 1 100-D-104/100-D-50:7 Tier II_SPA	Interim Closed Out
100-D-104/100-D-50:7		
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109[a]	100-D-31:11_OB 100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow 100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_OB 100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA 100-D-72_OB	Interim Closed Out
100-D-50:1	100-D-50:1_Deep 100-D-50:1_Deep Focused 100-D-50:1 SPA 100-D-50:1 OB North 100-D-50:1 OB South	Interim Closed Out
100-D-50:4	100-D-50:4_Shallow 100-D-50:4_SPA	Interim Closed Out
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1 100-D-50:6_126-DR-1_Deep 2 100-D-50:6_126-DR-1_Deep Focused 183-DR Clearwell_183DVL1 Lift 1	Interim Closed Out
100-D-50:7	100-D-50:7_OB 100-D-50:7_Shallow Focused	Interim Closed Out
100-D-50:8	100-D-50:8_Shallow 100-D-50:8_SPA	Interim Closed Out
100-D-50:9	100-D-50:9_Service Area 2_Shallow 100-D-50:9_Service Area 2_OB 100-D-50:9_Service Area 2_SPA	Interim Closed Out
100-D-62, 100-D-77, 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow 100-D-62, 100-D-77, 100-D-83:1 Shallow Focused 100-D-62, 100-D-77, 100-D-83:1 SPA	Interim Closed Out
100-D-65	100-D-65_Shallow 100-D-65_Sediment	Interim Closed Out
100-D-66	100-D-66_Shallow 100-D-66_SPA	Interim Closed Out
100-D-69	100-D-69_Shallow & SPA	Interim Closed Out
100-D-71	This is the remediation of a facility; soil associated with this waste site was remediated with 100-D-104.	Interim Closed Out
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow 100-D-73 and 100-D-76_OB 100-D-73 and 100-D-76_SPA 100-D-73 and 100-D-76_OB Lift 1 100-D-73 and 100-D-76_OB Lift 2	Interim Closed Out
100-D-75:1	100-D-75:1_Shallow 100-D-75:1_SPA	Interim Closed Out
100-D-75:2	100-D-75:2_Shallow	Interim No Action
100-D-78	100-D-78 Shallow 100-D-78 SPA	Interim Closed Out
100-D-80:2	No soil data.	Interim Closed Out
100-D-81	100-D-81 Shallow	Interim Closed Out
100-D-83:2	No soil samples collected; piping and value pit removed; soil removed during remediation of 100-D-100.	Interim Closed Out

Table 1. Summary of 100-DH Source OU Remediated Waste Sites, Decision Units, and Reclassification Status

Waste Site Name	Waste Site/Decision Unit	Reclassification Status
100-D-83:3 100-D-83:3	100-D-83:3_Shallow 100-D-83:3_OB 100-D-83:3_SPA	Interim Closed Out
100-D-83:5	100-D-83:5-West_Shallow 100-D-83:5-East_Shallow 100-D-83:5_OB 100-D-83:5_SPA_4 100-D-83:5_Shallow Focused	Interim Closed Out
100-84:2	100-D-84:2_Area 3_Shallow 100-D-84:2_Area 4_Shallow Focused 100-D-84:2_Area 4_SPA	Interim Closed Out
100-D-85:2	100-D-85:2_Shallow 100-D-85:2_OB	Interim Closed Out
100-D-86:1	100-D-86:1_Shallow 100-D-86:1_Deep 100-D-86:1_OB	Interim Closed Out
100-D-86:3	100-D-86:3_Shallow 100-D-86:3_SPA	Interim Closed Out
100-D-96:1	100-D-96:1_Shallow	Interim No Action
100-D-96:2	100-D-96:2_Shallow&SPA	Interim Closed Out
100-D-97	100-D-97_Shallow Focused 100-D-97_Shallow	Interim Closed Out
100-98:2	100-D-98:2_Shallow	Interim No Action
100-98:3	No soil data.	Interim Closed Out
100-D-99	100-D-99_Shallow 100-D-99_SPA	Interim Closed Out
100-D-100	100-D-100_Shallow 1 100-D-100_Shallow 2 100-D-100_Shallow 3 100-D-100_Shallow 4 100-D-100_Shallow 5 100-D-100_Shallow 6 100-D-100_Shallow 7 100-D-100_Shallow 8 100-D-100_Tier II SPA 100-D-100_Tier II OB 100-D-100_Tier III OB (SP1VL1) 100-D-100 OB in 100-D-50:1 (BFVL1) 100-D-100 OB in 100-D-50:1 (BFVL2) 100-D-100 OB in 100-D-50:1 (BFVL3) 100-D-100 OB in 100-D-50:1 (BFVL4) 100-D-100 OB in 100-D-50:1 (BFVL5) 100-D-100 OB in 100-D-62/100-D-77 (BFVL1) 100-D-100 OB in 100-D-62/100-D-77 (BFVL2) 100-D-100 OB in 100-D-50:6 (VLIN1) 100-D-100 OB in 100-D-50:6 (SP2VL2N) 100-D-100 OB in 100-D-50:6 (SP2VL3N) 100-D-100 OB in 100-D-50:6 (VL1S) 100-D-100 OB in 100-D-50:6 (SP2VL2S) 100-D-100 OB in 100-D-50:6 (SP2VL3S) 100-D-100 OB in 100-D-50:6 (SP2VL4S) 100-D-100 OB in 100-D-50:6 (SP2VL1W) 100-D-100_Tier III SPA1_SE 100-D-100_Tier III SPA_SW 100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 100-D-50:7_SPA_West 100-D-100 Decon_Pad	Interim Closed Out
100-D-101	100-D-101_Shallow	Interim No Action
100-D-102	100-D-102_Shallow	Interim No Action
100-D-103	100-D-103_Shallow	Interim No Action
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow 100-D-105 Test Pit 4 (Segment 7)_Shallow 100-D-105 Test Pit 5 (Segment 8)_Shallow 100-D-105 Test Pit 6 (Segment 9)_Shallow 100-D-105 Test Pit 8 (Segment 11)_Shallow 100-D-105 Test Pit 9 (Segment 12)_Shallow 100-D-105 Test Pit 10 (Segment 14)_Shallow 100-D-105 Test Pit 11 (Segment 15)_Shallow 100-D-105 Test Pit 12 (Segment 4)_shallow 100-D-105 Test Pit 13 (Segment 5)_shallow	Interim No Action
100-D-106	100-D-106_Shallow 100-D-106_SPA 100-D-106_Shallow Focused	Interim Closed Out

Table 1. Summary of 100-DH Source OU Remediated Waste Sites, Decision Units, and Reclassification Status

Waste Site Name	Waste Site/Decision Unit	Reclassification Status
100-D-107	100-D-107_Shallow	Interim No Action
116-DR-3	116-DR-3_Shallow	Interim No Action
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow 118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow 118-D-2:1_Sample Area C: Trench 7_Shallow 118-D-2:1_OB 118-D-2:1_Shallow Focused	Interim Closed Out
118-D-2:2	118-D-2:2: Sample Area A_Shallow 118-D-2:2: Sample Area B_Shallow	Interim Closed Out
118-D-3:1	118-D-3:1_Shallow Zone 1 118-D-3:1_Deep Zone 1 118-D-3:1_Shallow Zone 2 118-D-3:1_Deep Zone 2 118-D-3:1_Deep Zone 3	Interim Closed Out
118-D-3:2	118-D-3:2_Shallow Zone 118-D-3:2_Shallow Focused	Interim Closed Out
1607-D2:5	1607-D2:5_Shallow 1607-D2:5_SPA	Interim Closed Out
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow 100-H-42 Excav2_Shallow 100-H-28:2 & 100-H-42_SPA 100-H-28:2 & 100-H-42_OB 100-H-28:2 & 100-H-42_Shallow Focused	Interim Closed Out
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North 100-H-28:3, 100-H-28:5 and 100-H-44_OB South 100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused 100-H-28:3 and 100-H-44_Shallow 100-H-28:5_Shallow	Interim Closed Out
100-H-28:4	100-H-28:4_Shallow 100-H-28:4_Shallow Focused	Interim Closed Out
100-H-28:7	100-H-28:7_Shallow	Interim No Action
100-H-43	100-H-43_Shallow 100-H-43_Shallow Focused 100-H-43_SPA	Interim Closed Out
100-H-46	100-H-46_Shallow_DU1 100-H-46_Shallow_DU2 100-H-46_DU3_OB	Interim Closed Out
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	Interim Closed Out
100-H-49:1	100-H-49:1_Shallow Focused	Interim Closed Out
100-H-51:1	100-H-51:1_Shallow 100-H-51:1_Shallow focused	Interim Closed Out
100-H-51:2	100-H-51:2_Shallow	Interim Closed Out
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow 100-H-51:6_Shallow Focused	Interim Closed Out
100-H-54	100-H-54_shallow	Interim No Action
100-H-56	100-H-56_Shallow	Interim No Action
100-H-57	100-H-57_shallow	Interim No Action
100-H-59:1	100-H-59:1_Shallow 100-H-59:1_SPA	Interim Closed Out
100-H-59:2	100-H-59:2_Shallow 100-H-59:2_Shallow Focused 100-H-59:2_SPA	Interim Closed Out
126-H-2	126-H-2 East and Pump Room Clearwell_Shallow	Interim Closed Out
132-H-3	132-H-3_Area A _OB 132-H-3_Area B _OB 132-H-3_Area C _OB 132-H-3_Area D _SPA 132-H-3_Shallow	Interim Closed Out
600-380	No soil data.	Interim Closed Out
600-381	600-381_Shallow	Interim No Action
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	Interim Closed Out
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	Interim Closed Out
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	Interim Closed Out

a. Waste sites 100-D-108 and 100-D-109 were classified as no action sites.

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-8	100-D-8 Shallow	14133-76-7	Technetium-99	0.472	0.46	4.54E+01	25.7	Sampling Maps (using PDF Measure)	1.77E+00	-	---	1.77E+00	Scaled GWP SSL	No	Yes
100-D-8	100-D-8 Shallow	10028-17-8	Tritium	0.0149	12.6	2.06E+03	25.7	Sampling Maps (using PDF Measure)	8.01E+01	-	---	8.01E+01	Scaled GWP SSL	No	No
100-D-8	100-D-8 Shallow	7440-36-0	Antimony	1.3	5	NR	25.7	Sampling Maps (using PDF Measure)	NR	0.13	0.6	No	NR	No	No
100-D-8	100-D-8 Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	4.4	100	5.04E+02	25.7	Sampling Maps (using PDF Measure)	1.96E+01	-	---	1.96E+01	Scaled GWP SSL	No	No
100-D-14	100-D-14 Shallow	7440-42-8	Boron	1.4	320	7.78E+03	12.17	Sampling Maps (using PDF Measure)	6.39E+02	3.89	2	6.39E+02	Scaled GWP SSL	No	No
100-D-14	100-D-14 Shallow	7439-98-7	Molybdenum	0.28	8	1.82E+04	12.17	Sampling Maps (using PDF Measure)	1.49E+03	0.47	2	1.49E+03	Scaled GWP SSL	No	No
100-D-14	100-D-14 Shallow	7782-49-2	Selenium	1.4	5	2.01E+02	12.17	Sampling Maps (using PDF Measure)	1.65E+01	0.78	1	1.65E+01	Scaled GWP SSL	No	No
100-D-14	100-D-14 Shallow	NO2-N	Nitrogen in Nitrite	0.46	100	5.04E+01	12.17	Sampling Maps (using PDF Measure)	4.14E+00	-	0.75	4.14E+00	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7782-49-2	Selenium	0.81	5	2.01E+02	90.99	Sampling Maps (using PDF Measure)	2.21E+00	0.78	1	2.21E+00	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7440-42-8	Boron	1.2	320	7.78E+03	90.99	Sampling Maps (using PDF Measure)	8.55E+01	3.89	2	8.55E+01	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7439-98-7	Molybdenum	0.29	8	1.82E+04	90.99	Sampling Maps (using PDF Measure)	2.00E+02	0.47	2	2.00E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7782-49-2	Selenium	1.2	5	2.01E+02	23.84	Sampling Maps (using PDF Measure)	8.42E+00	0.78	1	8.42E+00	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7440-42-8	Boron	1.3	320	7.78E+03	23.84	Sampling Maps (using PDF Measure)	3.26E+02	3.89	2	3.26E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7439-98-7	Molybdenum	0.23	8	1.82E+04	23.84	Sampling Maps (using PDF Measure)	7.63E+02	0.47	2	7.63E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7439-98-7	Molybdenum	0.35	8	1.82E+04	47.137	Sampling Maps (using PDF Measure)	3.86E+02	0.47	2	3.86E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7782-49-2	Selenium	1.1	5	2.01E+02	47.137	Sampling Maps (using PDF Measure)	4.26E+00	0.78	1	4.26E+00	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_4	7440-42-8	Boron	1.2	320	7.78E+03	52.94	Sampling Maps (using PDF Measure)	1.47E+02	3.89	2	1.47E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_4	7439-98-7	Molybdenum	0.23	8	1.82E+04	52.94	Sampling Maps (using PDF Measure)	3.43E+02	0.47	2	3.43E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_6	7439-98-7	Molybdenum	0.51	8	1.82E+04	59.79	Sampling Maps (using PDF Measure)	3.04E+02	0.47	2	3.04E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_7	7440-42-8	Boron	1.7	320	7.78E+03	48.7	Sampling Maps (using PDF Measure)	1.60E+02	3.89	2	1.60E+02	Scaled GWP SSL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_7	7439-98-7	Molybdenum	0.36	8	1.82E+04	48.7	Sampling Maps (using PDF Measure)	3.73E+02	0.47	2	3.73E+02	Scaled GWP SSL	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-	7440-42-8	Boron	1.1	320	7.78E+03	1	Sewer pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	7440-22-4	Silver	0.14	8	5.57E+02	1	Sewer pipeline	5.57E+02	0.167	0.2	5.57E+02	Scaled GWP SSL	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	3.9	1000	5.04E+02	1	Sewer pipeline	5.04E+02	-	---	5.04E+02	Scaled GWP SSL	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	56-55-3	Benzo(a)anthracene	0.012	0.015	NR	1	Sewer pipeline	NR	-	0.015	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	50-32-8	Benzo(a)pyrene	0.022	0.015	NR	1	Sewer pipeline	NR	-	0.015	No	NR	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	205-99-2	Benzo(b)fluoranthene	0.025	0.015	NR	1	Sewer pipeline	NR	-	0.015	No	NR	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	191-24-2	Benzo(ghi)perylene	0.016	48	NA	1	Sewer pipeline	NA	-	0.03	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	207-08-9	Benzo(k)fluoranthene	0.01	0.015	NR	1	Sewer pipeline	NR	-	0.015	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	218-01-9	Chrysene	0.016	0.12	NR	1	Sewer pipeline	NR	-	0.1	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	84-66-2	Diethyl phthalate	0.029	1280	1.44E+03	1	Sewer pipeline	1.44E+03	-	0.33	1.44E+03	Scaled GWP SSL	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	206-44-0	Fluoranthene	0.033	64	NR	1	Sewer pipeline	NR	-	0.05	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.013	0.33	NR	1	Sewer pipeline	NR	-	0.03	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	85-01-8	Phenanthrene	0.016	240	NA	1	Sewer pipeline	NA	-	0.05	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	129-00-0	Pyrene	0.036	48	NR	1	Sewer pipeline	NR	-	0.05	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloro	0.0028	0.0257	NR	1	Sewer pipeline	NR	-	0.0033	No	NR	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	11097-69-1	Aroclor-1254	0.012	0.017	NR	1	Sewer pipeline	NR	-	0.0165	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	10028-17-8	Tritium	0.15	12.6	2.06E+03	1	pipeline	2.06E+03	-	---	2.06E+03	Scaled GWP SSL	No	No
100-D-50:4	100-D-50:4_Shallow	10045-97-3	Cesium-137	0.2588	1465	NR	1	pipeline	NR	0.00105	0.1	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	7440-42-8	Boron	0.96	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:4	100-D-50:4_Shallow	7439-98-7	Molybdenum	0.72	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:4	100-D-50:4_Shallow	50-32-8	Benzo(a)pyrene	0.0072	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	205-99-2	Benzo(b)fluoranthene	0.02	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:4	100-D-50:4_Shallow	207-08-9	Benzo(k)fluoranthene	0.0067	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	218-01-9	chrysene	0.023	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	206-44-0	fluoranthene	0.099	64	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	85-01-8	Phenanthrene	0.14	240	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	129-00-0	Pyrene	0.065	48	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-50:4	100-D-50:4_Shallow	11096-82-5	Aroclor-1260	0.012	0.017	NR	1	pipeline	NR	-	0.0165	No	NR	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	7440-50-8	copper	23.4	59.2	2.86E+05	1	pipeline	2.86E+05	22	1	2.86E+05	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	7440-42-8	Boron	4.1	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	7439-98-7	Molybdenum	0.76	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	83-32-9	Acenaphthene	9.4	96	1.89E+03	1	pipeline	1.89E+03	-	0.1	1.89E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	208-96-8	Acenaphthylene	0.22	96	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	120-12-7	Anthracene	1,300,000	240	3.89E+05	1	pipeline	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	Yes	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	56-55-3	Benzo(a)anthracene	11,000	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	50-32-8	Benzo(a)pyrene	2,300	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	205-99-2	Benzo(b)fluoranthene	3,500	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	191-24-2	Benzo(ghi)perylene	470	48	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	207-08-9	Benzo(k)fluoranthene	1,500	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	218-01-9	chrysene	9,100	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	--	Dibenz(a,h)anthracene	2.4	0.03	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	206-44-0	fluoranthene	26,000	64	NR	1	pipeline	NR	-	0.05	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	86-73-7	Fluorene	10,000	64	2.02E+03	1	pipeline	2.02E+03	-	0.03	2.02E+03	Scaled GWP SSL	Yes	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	193-39-5	Indeno(1,2,3-cd)pyrene	2,000	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	91-20-3	Naphthalene	9.70	16	1.58E+02	1	pipeline	1.58E+02	-	0.1	1.58E+02	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	85-01-8	Phenanthrene	61,000	240	NA	1	pipeline	NA	-	0.05	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	129-00-0	Pyrene	24,000	48	NR	1	pipeline	NR	-	0.05	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	7440-42-8	Boron	1.3	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	7439-98-7	Molybdenum	0.31	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	83-32-9	Acenaphthene	0.38	96	1.89E+03	1	pipeline	1.89E+03	-	0.1	1.89E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	208-96-8	Acenaphthylene	0.06	96	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	120-12-7	Anthracene	1,100	240	3.89E+05	1	pipeline	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	56-55-3	Benzo(a)anthracene	720	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	50-32-8	Benzo(a)pyrene	110	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	205-99-2	Benzo(b)fluoranthene	210	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	191-24-2	Benzo(ghi)perylene	22	48	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	207-08-9	Benzo(k)fluoranthene	39	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	218-01-9	chrysene	230	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	--	Dibenz(a,h)anthracene	0.18	0.03	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	206-44-0	fluoranthene	480	64	NR	1	pipeline	NR	-	0.05	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	86-73-7	Fluorene	42	64	2.02E+03	1	pipeline	2.02E+03	-	0.03	2.02E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	193-39-5	Indeno(1,2,3-cd)pyrene	8.4	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	91-20-3	Naphthalene	0.78	240	1.58E+02	1	pipeline	1.58E+02	-	0.1	1.58E+02	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	85-01-8	Phenanthrene	600	240	NA	1	pipeline	NA	-	0.05	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	129-00-0	Pyrene	540	48	NR	1	pipeline	NR	-	0.05	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	11097-69-1	Aroclor-1254	0.020	0.017	NR	1	pipeline	NR	-	0.0165	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	7440-42-8	Boron	0.97	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	7439-98-7	Molybdenum	0.37	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	83-32-9	Acenaphthene	0.25	240	1.89E+03	1	pipeline	1.89E+03	-	0.1	1.89E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	120-12-7	Anthracene	0.68	240	3.89E+05	1	pipeline	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	56-55-3	Benzo(a)anthracene	1.1	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	50-32-8	Benzo(a)pyrene	1.1	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	205-99-2	Benzo(b)fluoranthene	1.1	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	191-24-2	Benzo(ghi)perylene	0.64	48	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	207-08-9	Benzo(k)fluoranthene	0.49	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	218-01-9	chrysene	1	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	--	Dibenz(a,h)anthracene	0.21	0.03	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	206-44-0	fluoranthene	2.4	64	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	86-73-7	Fluorene	0.38	64	2.02E+03	1	pipeline	2.02E+03	-	0.03	2.02E+03	Scaled GWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.67	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	85-01-8	Phenanthrene	1.7	240	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	129-00-0	Pyrene	2.4	48	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	11097-69-1	Aroclor-1254	0.013	0.017	NR	1	pipeline	NR	-	0.0165	No	NR	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	11096-82-5	Aroclor-1260	0.0048	0.017	NR	1	pipeline	NR	-	0.0165	No	NR	No	No
100-D-50:7	100-D-50:7_Shallow Focused	7440-42-8	Boron	1.1	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:7	100-D-50:7_Shallow Focused	7439-98-7	Molybdenum	0.72	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:7	100-D-50:7_Shallow Focused	7439-97-6	Mercury	2.6	0.33	NR	1	pipeline	NR	0.0131	---	No	NR	No	Yes
100-D-50:7	100-D-50:7_Shallow Focused	7440-66-6	zinc	406	480	NR	1	pipeline	NR	67.8	1	No	NR	No	No
100-D-50:7	100-D-50:7_Shallow Focused	72-54-8	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.0095	0.0365	NR	1	pipeline	NR	-	0.0033	No	NR	No	No
100-D-50:7	100-D-50:7_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloro	0.018	0.0257	NR	1	pipeline	NR	-	0.0033	No	NR	No	No
100-D-50:7	100-D-50:7_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloro	0.58	0.0257	NR	1	pipeline	NR	-	0.0033	No	NR	No	Yes
100-D-50:8	100-D-50:8_Shallow	7440-42-8	Boron	1.2	320	7.78E+03	1	Sampling Maps (using PDF Measure)	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:8	100-D-50:8_Shallow	7439-98-7	Molybdenum	0.38	8	1.82E+04	1	Sampling Maps (using PDF Measure)	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	7440-42-8	Boron	1.3	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	7439-98-7	Molybdenum	0.32	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	56-55-3	Benzo(a)anthracene	0.015	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	50-32-8	Benzo(a)pyrene	0.024	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:9	100-D-50:9_Service Area 2_Shallow	205-99-2	Benzo(b)fluoranthene	0.066	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:9	100-D-50:9_Service Area 2_Shallow	191-24-2	Benzo(ghi)perylene	0.04	48	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	207-08-9	Benzo(k)fluoranthene	0.019	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-50:9	100-D-50:9_Service Area 2_Shallow	218-01-9	chrysene	0.068	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.039	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	7440-42-8	Boron	1.3	320	7.78E+03	104.34	Sampling Maps (using PDF Measure)	7.45E+01	3.89	2	7.45E+01	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	7439-98-7	Molybdenum	0.43	8	1.82E+04	104.34	Sampling Maps (using PDF Measure)	1.74E+02	0.47	2	1.74E+02	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	83-32-9	Acenaphthene	0.19	96	1.89E+03	104.34	Sampling Maps (using PDF Measure)	1.81E+01	-	0.1	1.81E+01	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	208-96-8	Acenaphthylene	0.013	96	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	120-12-7	Anthracene	0.39	240	3.89E+05	104.34	Sampling Maps (using PDF Measure)	3.73E+03	-	0.05	3.73E+03	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	56-55-3	Benzo(a)anthracene	0.66	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	50-32-8	Benzo(a)pyrene	0.023	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	205-99-2	Benzo(b)fluoranthene	0.5	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	191-24-2	Benzo(ghi)perylene	0.32	48	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	207-08-9	Benzo(k)fluoranthene	0.18	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	218-01-9	chrysene	0.56	0.12	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	--	Dibenz(a,h)anthracene	0.092	0.03	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	206-44-0	fluoranthene	1.2	64	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	86-73-7	Fluorene	0.25	64	2.02E+03	104.34	Sampling Maps (using PDF Measure)	1.93E+01	-	0.03	1.93E+01	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.3	0.33	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	85-01-8	Phenanthrene	1.2	240	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	129-00-0	Pyrene	1.3	48	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	11096-82-5	Aroclor-1260	0.0075	0.017	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-42-8	Boron	1.7	320	7.78E+03	104.34	Sampling Maps (using PDF Measure)	7.45E+01	3.89	2	7.45E+01	Scaled GWP SSL	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7439-98-7	Molybdenum	0.51	8	1.82E+04	104.34	Sampling Maps (using PDF Measure)	1.74E+02	0.47	2	1.74E+02	Scaled GWP SSL	No	No

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-62-2	Vanadium	113	85.1	NR	104.34	Sampling Maps (using PDF Measure)	NR	85.1	2.5	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	56-55-3	Benzo(a)anthracene	0.011	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	50-32-8	Benzo(a)pyrene	0.016	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.017	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.012	0.015	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	218-01-9	chrysene	0.018	0.12	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	206-44-0	fluoranthene	0.034	64	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.014	0.33	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	129-00-0	Pyrene	0.04	48	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	11096-82-5	Aroclor-1260	0.0034	0.017	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
100-D-65	100-D-65_Shallow	7440-42-8	Boron	1.48	320	7.78E+03	24.22	Sampling Maps (using PDF Measure)	3.21E+02	3.89	2	3.21E+02	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	7439-98-7	Molybdenum	0.539	8	1.82E+04	24.22	Sampling Maps (using PDF Measure)	7.51E+02	0.47	2	7.51E+02	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	3.68	100	5.04E+02	24.22	Sampling Maps (using PDF Measure)	2.08E+01	-	---	2.08E+01	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	83-32-9	Acenaphthene	0.00801	96	1.89E+03	24.22	Sampling Maps (using PDF Measure)	7.80E+01	-	0.1	7.80E+01	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	208-96-8	Acenaphthylene	0.000266	96	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Shallow	56-55-3	Benzo(a)anthracene	0.0035	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Shallow	50-32-8	Benzo(a)pyrene	0.00586	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Shallow	205-99-2	Benzo(b)fluoranthene	0.00514	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Shallow	191-24-2	Benzo(ghi)perylene	0.00329	48	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-65	100-D-65_Shallow	207-08-9	Benzo(k)fluoranthene	0.00301	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Shallow	218-01-9	chrysene	0.00768	0.12	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-65	100-D-65_Shallow	86-73-7	Fluorene	0.002	64	2.02E+03	24.22	Sampling Maps (using PDF Measure)	8.32E+01	-	0.03	8.32E+01	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	206-44-0	fluoranthene	0.00957	64	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-65	100-D-65_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.00823	0.33	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-65	100-D-65_Shallow	91-20-3	Naphthalene	0.00516	16	1.58E+02	24.22	Sampling Maps (using PDF Measure)	6.54E+00	-	0.1	6.54E+00	Scaled GWP SSL	No	No
100-D-65	100-D-65_Shallow	85-01-8	Phenanthrene	0.00541	240	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-65	100-D-65_Shallow	129-00-0	Pyrene	0.00487	48	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-65	100-D-65_Sediment	10045-97-3	Cesium-137	0.0444	1465	NR	24.22	Sampling Maps (using PDF Measure)	NR	0.00105	0.1	No	NR	No	No
100-D-65	100-D-65_Sediment	7440-42-8	Boron	3.6	320	7.78E+03	24.22	Sampling Maps (using PDF Measure)	3.21E+02	3.89	2	3.21E+02	Scaled GWP SSL	No	No
100-D-65	100-D-65_Sediment	7440-47-3	Chromium	44.2	18.5	NR	24.22	Sampling Maps (using PDF Measure)	NR	18.5	0.2	No	NR	No	Yes
100-D-65	100-D-65_Sediment	7440-50-8	Copper	30.2	59.2	2.86E+05	24.22	Sampling Maps (using PDF Measure)	1.18E+04	22	1	1.18E+04	Scaled GWP SSL	No	No
100-D-65	100-D-65_Sediment	7439-92-1	Lead	11	10.2	NR	24.22	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
100-D-65	100-D-65_Sediment	7439-96-5	Manganese	639	512	NR	24.22	Sampling Maps (using PDF Measure)	NR	512	5	No	NR	No	Yes
100-D-65	100-D-65_Sediment	7439-97-6	Mercury	0.011	0.33	NR	24.22	Sampling Maps (using PDF Measure)	NR	0.0131	---	No	NR	No	No
100-D-65	100-D-65_Sediment	7439-98-7	Molybdenum	0.8	8	1.82E+04	24.22	Sampling Maps (using PDF Measure)	7.51E+02	0.47	2	7.51E+02	Scaled GWP SSL	No	No
100-D-65	100-D-65_Sediment	7440-02-0	Nickel	21.9	83	NR	24.22	Sampling Maps (using PDF Measure)	NR	19.1	4	No	NR	No	No
100-D-65	100-D-65_Sediment	7440-66-6	Zinc	96.1	480	NR	24.22	Sampling Maps (using PDF Measure)	NR	67.8	1	No	NR	No	No
100-D-65	100-D-65_Sediment	83-32-9	Acenaphthene	0.23	96	1.89E+03	24.22	Sampling Maps (using PDF Measure)	7.80E+01	-	0.1	7.80E+01	Scaled GWP SSL	No	No
100-D-65	100-D-65_Sediment	56-55-3	Benzo(a)anthracene	0.0059	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Sediment	50-32-8	Benzo(a)pyrene	0.0095	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Sediment	205-99-2	Benzo(b)fluoranthene	0.0091	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Sediment	207-08-9	Benzo(k)fluoranthene	0.0089	0.015	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-65	100-D-65_Sediment	218-01-9	chrysene	0.009	0.12	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-65	100-D-65_Sediment	86-73-7	Fluorene	0.0085	64	2.02E+03	24.22	Sampling Maps (using PDF Measure)	8.32E+01	-	0.03	8.32E+01	Scaled GWP SSL	No	No
100-D-65	100-D-65_Sediment	131-11-3	Dimethyl phthalate	0.36	1600	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-D-65	100-D-65_Sediment	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroe	0.00033	0.0257	NR	24.22	Sampling Maps (using PDF Measure)	NR	-	0.0033	No	NR	No	No
100-D-66	100-D-66_Shallow	7440-02-0	Nickel	5.6	83	NR	23.76	Sampling Maps (using PDF Measure)	NR	19.1	4	No	NR	No	No
100-D-66	100-D-66_Shallow	10028-17-8	Tritium	3.43	12.6	2.06E+03	23.76	Sampling Maps (using PDF Measure)	8.66E+01	-	---	8.66E+01	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	7440-42-8	Boron	1.12	320	7.78E+03	23.76	Sampling Maps (using PDF Measure)	3.27E+02	3.89	2	3.27E+02	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	7439-98-7	Molybdenum	0.461	8	1.82E+04	23.76	Sampling Maps (using PDF Measure)	7.65E+02	0.47	2	7.65E+02	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	14808-79-8	Sulfate	264	25000	1.26E+04	23.76	Sampling Maps (using PDF Measure)	5.30E+02	-	5	5.30E+02	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	22.3	1000	5.04E+02	23.76	Sampling Maps (using PDF Measure)	2.12E+01	-	---	2.12E+01	Scaled GWP SSL	Yes	No
100-D-66	100-D-66_Shallow	83-32-9	Acenaphthene	0.019	96	1.89E+03	23.76	Sampling Maps (using PDF Measure)	7.95E+01	-	0.1	7.95E+01	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	208-96-8	Acenaphthylene	0.0445	96	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-66	100-D-66_Shallow	120-12-7	Anthracene	0.0108	240	3.89E+05	23.76	Sampling Maps (using PDF Measure)	1.64E+04	-	0.05	1.64E+04	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	56-55-3	Benzo(a)anthracene	0.0284	0.015	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-66	100-D-66_Shallow	50-32-8	Benzo(a)pyrene	0.0174	0.015	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-66	100-D-66_Shallow	205-99-2	Benzo(b)fluoranthene	0.0154	0.015	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-66	100-D-66_Shallow	191-24-2	Benzo(ghi)perylene	0.0127	48	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-66	100-D-66_Shallow	207-08-9	Benzo(k)fluoranthene	0.0289	0.015	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-66	100-D-66_Shallow	218-01-9	chrysene	0.111	0.12	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-66	100-D-66_Shallow	--	Dibenz(a,h)anthracene	0.00674	0.03	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-66	100-D-66_Shallow	206-44-0	fluoranthene	0.0387	64	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-66	100-D-66_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.00969	0.33	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-66	100-D-66_Shallow	91-20-3	Naphthalene	0.0293	16	1.58E+02	23.76	Sampling Maps (using PDF Measure)	6.67E+00	-	0.1	6.67E+00	Scaled GWP SSL	No	No
100-D-66	100-D-66_Shallow	85-01-8	Phenanthrene	0.0469	240	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-66	100-D-66_Shallow	129-00-0	Pyrene	0.0328	48	NR	23.76	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-69	100-D-69_Shallow & SPA	7440-42-8	Boron	1.5	320	7.78E+03	20.94	Sampling Maps (using PDF Measure)	3.71E+02	3.89	2	3.71E+02	Scaled GWP SSL	No	No
100-D-69	100-D-69_Shallow & SPA	7439-98-7	Molybdenum	2.8	8	1.82E+04	20.94	Sampling Maps (using PDF Measure)	8.68E+02	0.47	2	8.68E+02	Scaled GWP SSL	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7440-42-8	Boron	1.1	320	7.78E+03	58.07	Sampling Maps (using PDF Measure)	1.34E+02	3.89	2	1.34E+02	Scaled GWP SSL	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7439-98-7	Molybdenum	0.31	8	1.82E+04	58.07	Sampling Maps (using PDF Measure)	3.13E+02	0.47	2	3.13E+02	Scaled GWP SSL	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	75-09-2	Methylene Chloride	0.0031	0.5	2.90E-01	58.07	Sampling Maps (using PDF Measure)	4.99E-03	-	0.005	5.00E-03	RDL	No	No
100-D-75:1	100-D-75:1_Shallow	7440-42-8	Boron	1.3	320	7.78E+03	129.6	Sampling Maps (using PDF Measure)	6.00E+01	3.89	2	6.00E+01	Scaled GWP SSL	No	No
100-D-75:1	100-D-75:1_Shallow	85-01-8	Phenanthrene	0.019	240	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:1	100-D-75:1_Shallow	129-00-0	Pyrene	0.023	48	NR	129.6	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-75:1	100-D-75:1_Shallow	11096-82-5	Aroclor-1260	0.046	0.017	NR	129.6	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	Yes
100-D-75:2	100-D-75:2_Shallow	7440-42-8	Boron	3.23	320	7.78E+03	129.6	Sampling Maps (using PDF Measure) -	6.00E+01	3.89	2	6.00E+01	Scaled GWP SSL	No	No
100-D-75:2	100-D-75:2_Shallow	7440-43-9	Cadmium	0.991	0.81	2.69E+01	129.6	Sampling Maps (using PDF Measure) -	2.07E-01	0.563	0.2	5.63E-01	BG	Yes	Yes
100-D-75:2	100-D-75:2_Shallow	7440-50-8	Copper	24	59.2	2.86E+05	129.6	Sampling Maps (using PDF Measure) -	2.21E+03	22	1	2.21E+03	Scaled GWP SSL	No	No
100-D-75:2	100-D-75:2_Shallow	7439-92-1	Lead	89.2	10.2	NR	129.6	Sampling Maps (using PDF Measure) -	NR	10.2	0.5	No	NR	No	Yes
100-D-75:2	100-D-75:2_Shallow	7439-98-7	Molybdenum	1.12	8	1.82E+04	129.6	Sampling Maps (using PDF Measure) -	1.40E+02	0.47	2	1.40E+02	Scaled GWP SSL	No	No
100-D-75:2	100-D-75:2_Shallow	7440-66-6	Zinc	140	480	NR	129.6	Sampling Maps (using PDF Measure) -	NR	67.8	1	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	56-55-3	Benzo(a)anthracene	0.00598	0.015	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.015	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	50-32-8	Benzo(a)pyrene	0.00484	0.015	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.015	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	205-99-2	Benzo(b)fluoranthene	0.0169	0.015	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.015	No	NR	No	Yes
100-D-75:2	100-D-75:2_Shallow	191-24-2	Benzo(ghi)perylene	0.00483	48	NA	129.6	Sampling Maps (using PDF Measure) -	NA	-	0.03	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	207-08-9	Benzo(k)fluoranthene	0.00886	0.015	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.015	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	218-01-9	Chrysene	0.02	0.12	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.1	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	53-70-3	Dibenz(a,h)anthracene	0.000812	0.03	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.03	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	206-44-0	Fluoranthene	0.0379	64	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.05	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	129-00-0	pyrene	0.0336	48	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.05	No	NR	No	No
100-D-75:2	100-D-75:2_Shallow	85-01-8	Phenanthrene	0.039	240	NA	129.6	Sampling Maps (using PDF Measure) -	NA	-	0.05	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	11096-82-5	Aroclor-1260	0.0262	0.017	NR	129.6	Sampling Maps (using PDF Measure) -	NR	-	0.0165	No	NR	No	Yes
100-D-78	100-D-78 Shallow	7440-42-8	Boron	1.2	320	7.78E+03	1	Sampling Maps (using PDF Measure)	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-78	100-D-78 Shallow	7439-98-7	Molybdenum	0.32	8	1.82E+04	1	Sampling Maps (using PDF Measure)	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-78	100-D-78 Shallow	NO2-N	Nitrogen in Nitrite	0.82	100	5.04E+01	1	Sampling Maps (using PDF Measure)	5.04E+01	-	0.75	5.04E+01	Scaled GWP SSL	No	No
100-D-78	100-D-78 Shallow	14808-79-8	Sulfate	652	25000	1.26E+04	1	Sampling Maps (using PDF Measure)	1.26E+04	-	5	1.26E+04	Scaled GWP SSL	No	No
100-D-81	100-D-81 Shallow	7440-42-8	Boron	1.5	320	7.78E+03	43.57	Multiple Areas; however considered one	1.78E+02	3.89	2	1.78E+02	Scaled GWP SSL	No	No
100-D-81	100-D-81 Shallow	7439-98-7	Molybdenum	0.28	8	1.82E+04	43.57	Multiple Areas; however considered one	4.17E+02	0.47	2	4.17E+02	Scaled GWP SSL	No	No
100-D-81	100-D-81 Shallow	50-32-8	Benzo(a)pyrene	0.0098	0.015	NR	43.57	Multiple Areas; however considered one measurenet only	NR	-	0.015	No	NR	No	No
100-D-81	100-D-81 Shallow	205-99-2	Benzo(b)fluoranthene	0.006	0.015	NR	43.57	Multiple Areas; however considered one measurenet only	NR	-	0.015	No	NR	No	No
100-D-81	100-D-81 Shallow	218-01-9	Chrysene	0.0057	0.12	NR	43.57	Multiple Areas; however considered one measurenet only	NR	-	0.1	No	NR	No	No
100-D-83:3	100-D-83:3 Shallow	56-55-3	Benzo(a)anthracene	0.078	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-83:3	100-D-83:3 Shallow	50-32-8	Benzo(a)pyrene	0.071	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-83:3	100-D-83:3 Shallow	205-99-2	Benzo(b)fluoranthene	0.094	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-83:3	100-D-83:3 Shallow	191-24-2	Benzo(ghi)perylene	0.042	48	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-83:3	100-D-83:3 Shallow	218-01-9	Chrysene	0.09	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	No
100-D-83:3	100-D-83:3 Shallow	131-11-3	Dimethyl phthalate	0.038	1600	NA	1	pipeline	NA	-	0.33	NA	-	No	No
100-D-83:3	100-D-83:3 Shallow	206-44-0	Fluoranthene	0.14	64	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-83:3	100-D-83:3 Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.097	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	No
100-D-83:3	100-D-83:3 Shallow	85-01-8	Phenanthrene	0.07	240	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-83:3	100-D-83:3 Shallow	129-00-0	Pyrene	0.046	48	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-83:5	100-D-83:5-West_Shallow	7439-92-1	Lead	44.3	10.2	NR	1	pipeline	NR	10.2	0.5	No	NR	No	Yes
100-D-83:5	100-D-83:5-West_Shallow	7439-97-6	Mercury	14.5	0.33	NR	1	pipeline	NR	0.0131	---	No	NR	No	Yes
100-D-83:5	100-D-83:5-West_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	15.6	1000	5.04E+02	1	pipeline	5.04E+02	-	---	5.04E+02	Scaled GWP SSL	No	No
100-D-83:5	100-D-83:5-East_Shallow	7440-42-8	Boron	3.4	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-83:5	100-D-83:5-East_Shallow	7439-98-7	Molybdenum	0.24	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-83:5	100-D-83:5_Shallow Focused	7439-98-7	Molybdenum	0.37	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-83:5	100-D-83:5_Shallow Focused	7440-62-2	Vanadium	97.9	85.1	NR	1	pipeline	NR	85.1	2.5	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	7440-42-8	Boron	1.4	320	7.78E+03	1	pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	7439-98-7	Molybdenum	0.55	8	1.82E+04	1	pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	7782-49-2	Selenium	0.88	5	2.01E+02	1	pipeline	2.01E+02	0.78	1	2.01E+02	Scaled GWP SSL	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	56-55-3	Benzo(a)anthracene	0.027	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	205-99-2	Benzo(b)fluoranthene	0.033	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	218-01-9	Chrysene	0.035	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	206-44-0	Fluoranthene	0.052	64	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	85-01-8	Phenanthrene	0.017	240	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	129-00-0	Pyrene	0.027	48	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-39-3	Barium	146	200	NR	1	pipeline	NR	132	0.5	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-42-8	Boron	10.4	320	NR	1	pipeline	NR	3.89	2	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7439-98-7	Molybdenum	0.38	8	NR	1	pipeline	NR	0.47	2	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	56-55-3	Benzo(a)anthracene	0.026	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-32-8	Benzo(a)pyrene	0.022	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.028	0.015	NR	1	pipeline	NR	-	0.015	No	NR	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.019	48	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.0076	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	218-01-9	Chrysene	0.025	0.12	NR	1	pipeline	NR	-	0.1	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	206-44-0	Fluoranthene	0.047	64	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.015	0.33	NR	1	pipeline	NR	-	0.03	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	85-01-8	Phenanthrene	0.02	240	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	129-00-0	Pyrene	0.046	48	NR	1	pipeline	NR	-	0.05	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	72-55-9	4,4'-DDE	0.0024	0.0257	NR	1	pipeline	NR	-	0.0033	No	NR	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-29-3	4,4'-DDT	0.00085	0.0257	NR	1	pipeline	NR	-	0.0033	No	NR	No	No
100-D-85:2	100-D-85:2_Shallow	7440-42-8	Boron	0.9	320	7.78E+03	42.14	waste site consists of 16 pipeline segments	1.85E+02	3.89	2	1.85E+02	Scaled GWP SSL	No	No
100-D-85:2	100-D-85:2_Shallow	7439-98-7	Molybdenum	0.25	8	1.82E+04	42.14	waste site consists of 16 pipeline segments	4.32E+02	0.47	2	4.32E+02	Scaled GWP SSL	No	No
100-D-85:2	100-D-85:2_Shallow	SR-RAD	Total beta radiostrontium	0.194	27.6	2.94E+04	42.14	waste site consists of 16 pipeline segments	6.97E+02	0.000178	---	6.97E+02	Scaled GWP SSL	No	No
100-D-85:2	100-D-85:2_Shallow	11097-69-1	Aroclor-1254	0.088	0.017	NR	42.14	waste site consists of 16 pipeline segments	NR	-	0.0165	No	NR	No	Yes
100-D-86:1	100-D-86:1_Deep	SR-RAD	Total beta radiostrontium	0.352	27.6	2.94E+04	52.29	Sampling Maps (using PDF Measure)	5.61E+02	0.000178	---	5.61E+02	Scaled GWP SSL	No	
100-D-86:1	100-D-86:1_Deep	7440-62-2	Vanadium	85.6	85.1	7.78E+03	52.29	Sampling Maps (using PDF Measure)	1.49E+02	85.1	2.5	1.49E+02	Scaled GWP SSL	No	
100-D-86:1	100-D-86:1_Deep	56-55-3	Benzo(a)anthracene	0.024	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	
100-D-86:1	100-D-86:1_Deep	50-32-8	Benzo(a)pyrene	0.04	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	
100-D-86:1	100-D-86:1_Deep	205-99-2	Benzo(b)fluoranthene	0.024	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	
100-D-86:1	100-D-86:1_Deep	191-24-2	Benzo(ghi)perylene	0.03	48	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	
100-D-86:1	100-D-86:1_Deep	207-08-9	Benzo(k)fluoranthene	0.0086	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	
100-D-86:1	100-D-86:1_Deep	218-01-9	chrysene	0.028	0.12	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	
100-D-86:1	100-D-86:1_Deep	206-44-0	fluoranthene	0.06	64	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	
100-D-86:1	100-D-86:1_Deep	193-39-5	Indeno(1,2,3-cd)pyrene	0.019	0.33	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	
100-D-86:1	100-D-86:1_Deep	85-01-8	Phenanthrene	0.037	240	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	
100-D-86:1	100-D-86:1_Deep	129-00-0	Pyrene	0.074	48	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	
100-D-86:1	100-D-86:1_Deep	11097-69-1	Aroclor-1254	0.042	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	
100-D-86:1	100-D-86:1_Shallow	SR-RAD	Total beta radiostrontium	0.232	27.6	2.94E+04	52.29	Sampling Maps (using PDF Measure)	5.61E+02	0.000178	---	5.61E+02	Scaled GWP SSL	No	No
100-D-86:1	100-D-86:1_Shallow	7440-42-8	Boron	1.2	320	7.78E+03	52.29	Sampling Maps (using PDF Measure)	1.49E+02	3.89	2	1.49E+02	Scaled GWP SSL	No	No
100-D-86:1	100-D-86:1_Shallow	7439-98-7	Molybdenum	0.32	8	1.82E+04	52.29	Sampling Maps (using PDF Measure)	3.48E+02	0.47	2	3.48E+02	Scaled GWP SSL	No	No
100-D-86:1	100-D-86:1_Shallow	83-32-9	Acenaphthene	0.014	96	1.89E+03	52.29	Sampling Maps (using PDF Measure)	3.61E+01	-	0.1	3.61E+01	Scaled GWP SSL	No	No
100-D-86:1	100-D-86:1_Shallow	56-55-3	Benzo(a)anthracene	0.042	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-86:1	100-D-86:1_Shallow	50-32-8	Benzo(a)pyrene	0.032	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-86:1	100-D-86:1_Shallow	205-99-2	Benzo(b)fluoranthene	0.024	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-86:1	100-D-86:1_Shallow	191-24-2	Benzo(ghi)perylene	0.014	48	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	207-08-9	Benzo(k)fluoranthene	0.011	0.015	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-86:1	100-D-86:1_Shallow	218-01-9	chrysene	0.046	0.12	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-86:1	100-D-86:1_Shallow	206-44-0	fluoranthene	0.093	64	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-86:1	100-D-86:1_Shallow	86-73-7	fluorene	0.014	64	2.02E+03	52.29	Sampling Maps (using PDF Measure)	3.86E+01	-	0.03	3.86E+01	Scaled GWP SSL	No	No

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-86:1	100-D-86:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.016	0.33	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-86:1	100-D-86:1_Shallow	85-01-8	Phenanthrene	0.076	240	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	129-00-0	Pyrene	0.11	48	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-86:1	100-D-86:1_Shallow	11097-69-1	Aroclor-1254	0.084	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	Yes
100-D-86:1	100-D-86:1_Shallow	11096-82-5	Aroclor-1260	0.013	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	7440-42-8	Boron	3.2	320	7.78E+03	42.03	Sampling Maps (using PDF Measure)	1.85E+02	3.89	2	1.85E+02	Scaled GWP SSL	No	No
100-D-86:3	100-D-86:3_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloro	0.0024	0.0257	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0033	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	56-55-3	Benzo(a)anthracene	0.006	0.015	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	50-32-8	Benzo(a)pyrene	0.015	0.015	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	205-99-2	Benzo(b)fluoranthene	0.012	0.015	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	207-08-9	Benzo(k)fluoranthene	0.0041	0.015	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	218-01-9	chrysene	0.015	0.12	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	60-57-1	Dieldrin	0.0011	0.0033	7.98E+00	42.03	Sampling Maps (using PDF Measure)	1.90E-01	-	0.0033	1.90E-01	Scaled GWP SSL	No	No
100-D-86:3	100-D-86:3_Shallow	206-44-0	fluoranthene	0.017	64	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	1024-57-3	Heptachlor epoxide	0.00077	0.002	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.00165	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	72-43-5	Methoxychlor	0.0027	4	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
100-D-86:3	100-D-86:3_Shallow	11096-82-5	Aroclor-1260	0.265	0.017	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	Yes
100-D-96:1	100-D-96:1_Shallow	7440-42-8	Boron	4.5	320	NR	1	French Drains	NR	3.89	2	No	NR	No	No
100-D-96:1	100-D-96:1_Shallow	7439-98-7	Molybdenum	0.373	8	NR	1	French Drains	NR	0.47	2	No	NR	No	No
100-D-96:1	100-D-96:1_Shallow	7439-92-1	Lead	11.7	10.2	NR	1	French Drains	NR	10.2	0.5	No	NR	No	Yes
100-D-96:1	100-D-96:1_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	161	1000	NR	1	French Drains	NR	-	---	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	7440-42-8	Boron	4.3	320	7.78E+03	10	Sampling Maps (using PDF Measure)	7.78E+02	3.89	2	7.78E+02	Scaled GWP SSL	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	7439-98-7	Molybdenum	0.45	8	1.82E+04	10	Sampling Maps (using PDF Measure)	1.82E+03	0.47	2	1.82E+03	Scaled GWP SSL	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	7439-92-1	Lead	64.6	10.2	NR	10	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
100-D-96:2	100-D-96:2_Shallow&SPA	16984-48-8	Fluoride	3.9	96	NR	10	Sampling Maps (using PDF Measure)	NR	2.81	5	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	15.9	1000	5.04E+02	10	Sampling Maps (using PDF Measure)	5.04E+01	-	---	5.04E+01	Scaled GWP SSL	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	56-55-3	Benzo(a)anthracene	0.026	0.015	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-96:2	100-D-96:2_Shallow&SPA	50-32-8	Benzo(a)pyrene	0.0095	0.015	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	205-99-2	Benzo(b)fluoranthene	0.0099	0.015	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	218-01-9	chrysene	0.02	0.12	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	206-44-0	fluoranthene	0.075	64	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	85-01-8	Phenanthrene	0.047	240	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	129-00-0	Pyrene	0.075	48	NR	10	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-97	100-D-97_Shallow Focused	7439-98-7	Molybdenum	0.37	8	1.82E+04	1.23	500 gallon fuel tank	1.48E+04	0.47	2	1.48E+04	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow Focused	67-66-3	Chloroform	0.0039	0.717	1.28E-01	1.23	500 gallon fuel tank	1.04E-01	-	0.005	1.04E-01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow Focused	75-09-2	Methylene chloride	0.0056	0.5	2.90E-01	1.23	500 gallon fuel tank	2.36E-01	-	0.005	2.36E-01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow Focused	108-88-3	Toluene	0.0018	64	1.00E+02	1.23	500 gallon fuel tank	8.14E+01	-	0.005	8.14E+01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	7440-42-8	Boron	1.2	320	7.78E+03	1.23	500 gallon fuel tank	6.32E+03	3.89	2	6.32E+03	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	7439-98-7	Molybdenum	0.52	8	1.82E+04	1.23	500 gallon fuel tank	1.48E+04	0.47	2	1.48E+04	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	67-64-1	Acetone	0.031	720	3.66E+02	1.23	500 gallon fuel tank	2.98E+02	-	0.02	2.98E+02	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	67-66-3	Chloroform	0.0033	0.717	1.28E-01	1.23	500 gallon fuel tank	1.04E-01	-	0.005	1.04E-01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	56-55-3	Benzo(a)anthracene	0.012	0.015	NR	1.23	500 gallon fuel tank	NR	-	0.015	No	NR	No	No
100-D-97	100-D-97_Shallow	--	Dibenz(a,h)anthracene	0.013	0.03	NR	1.23	500 gallon fuel tank	NR	-	0.03	No	NR	No	No
100-D-97	100-D-97_Shallow	11097-69-1	Aroclor-1254	0.033	0.017	NR	1.23	500 gallon fuel tank	NR	-	0.0165	No	NR	No	Yes
100-D-97	100-D-97_Shallow	78-93-3	2-Butanone	0.022	480	2.58E+02	1.23	500 gallon fuel tank	2.10E+02	-	0.01	2.10E+02	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	591-78-6	2-Hexanone	0.019	8	2.47E+00	1.23	500 gallon fuel tank	2.01E+00	-	0.02	2.01E+00	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	108-10-1	4-methyl-2-pentanone	0.019	64	3.85E+01	1.23	500 gallon fuel tank	3.13E+01	-	0.01	3.13E+01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	108-90-7	Chlorobenzene	0.00071	16	2.21E+01	1.23	500 gallon fuel tank	1.80E+01	-	0.005	1.80E+01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	75-09-2	Methylene chloride	0.0069	0.5	2.90E-01	1.23	500 gallon fuel tank	2.36E-01	-	0.005	2.36E-01	Scaled GWP SSL	No	No
100-D-97	100-D-97_Shallow	108-88-3	Toluene	0.0014	64	1.00E+02	1.23	500 gallon fuel tank	8.14E+01	-	0.005	8.14E+01	Scaled GWP SSL	No	No
100-D-98:2	100-D-98:2_Shallow	7440-42-8	Boron	5.17	320	7.78E+03	1	Pipeline	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-98:2	100-D-98:2_Shallow	7439-98-7	Molybdenum	0.796	8	1.82E+04	1	Pipeline	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	7440-42-8	Boron	1.5	320	7.78E+03	1	Sampling Maps (using PDF Measure)	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	7439-98-7	Molybdenum	0.49	8	1.82E+04	1	Sampling Maps (using PDF Measure)	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	7782-49-2	Selenium	0.94	5	2.01E+02	1	Sampling Maps (using PDF Measure)	2.01E+02	0.78	1	2.01E+02	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	7440-66-6	Zinc	105	480	NR	1	Sampling Maps (using PDF Measure)	NR	67.8	1	No	NR	No	No
100-D-99	100-D-99_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	33.4	1000	5.04E+02	1	Sampling Maps (using PDF Measure)	5.04E+02	-	---	5.04E+02	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	14808-79-8	Sulfate	612	25000	1.26E+04	1	Sampling Maps (using PDF Measure)	1.26E+04	-	5	1.26E+04	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloro	0.00087	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	No	NR	No	No
100-D-99	100-D-99_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloro	0.002	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	No	NR	No	No
100-D-99	100-D-99_Shallow	56-55-3	Benzo(a)anthracene	0.014	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-99	100-D-99_Shallow	50-32-8	Benzo(a)pyrene	0.021	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-99	100-D-99_Shallow	205-99-2	Benzo(b)fluoranthene	0.02	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
100-D-99	100-D-99_Shallow	191-24-2	Benzo(ghi)perylene	0.021	48	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-99	100-D-99_Shallow	207-08-9	Benzo(k)fluoranthene	0.0066	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-99	100-D-99_Shallow	67-66-3	Chloroform	0.0041	0.141	1.28E-01	1	Sampling Maps (using PDF Measure)	1.28E-01	-	0.005	1.28E-01	Scaled GWP SSL	No	No
100-D-99	100-D-99_Shallow	218-01-9	chrysene	0.014	0.12	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-99	100-D-99_Shallow	206-44-0	fluoranthene	0.017	64	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-99	100-D-99_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.014	0.33	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-99	100-D-99_Shallow	108-88-3	Toluene	0.00077	64	1.00E+02	1	Sampling Maps (using PDF Measure)	1.00E+02	-	0.005	1.00E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 1	7440-42-8	Boron	1.3	320	7.78E+03	24.06	Sampling Maps (using PDF Measure)	3.23E+02	3.89	2	3.23E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 1	7439-98-7	Molybdenum	0.32	8	1.82E+04	24.06	Sampling Maps (using PDF Measure)	7.56E+02	0.47	2	7.56E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 2	7440-42-8	Boron	0.99	320	7.78E+03	24.06	Sampling Maps (using PDF Measure)	3.23E+02	3.89	2	3.23E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 2	7439-98-7	Molybdenum	0.32	8	1.82E+04	24.06	Sampling Maps (using PDF Measure)	7.56E+02	0.47	2	7.56E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 4	7439-98-7	Molybdenum	0.25	8	1.82E+04	24.06	Sampling Maps (using PDF Measure)	7.56E+02	0.47	2	7.56E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 5	7439-98-7	Molybdenum	0.29	8	1.82E+04	24.06	Sampling Maps (using PDF Measure)	7.56E+02	0.47	2	7.56E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 6	7439-98-7	Molybdenum	0.33	8	1.82E+04	24.06	Sampling Maps (using PDF Measure)	7.56E+02	0.47	2	7.56E+02	Scaled GWP SSL	No	No
100-D-100	100-D-100_Shallow 8	7440-42-8	Boron	1.1	320	7.78E+03	24.06	Sampling Maps (using PDF Measure)	3.23E+02	3.89	2	3.23E+02	Scaled GWP SSL	No	No
100-D-101	100-D-101_Shallow	7440-42-8	Boron	5.37	320	7.78E+03	29.4	Sampling Maps (using PDF Measure)	2.65E+02	3.89	2	2.65E+02	Scaled GWP SSL	No	No
100-D-101	100-D-101_Shallow	7439-98-7	Molybdenum	0.441	8	1.82E+04	29.4	Sampling Maps (using PDF Measure)	6.19E+02	0.47	2	6.19E+02	Scaled GWP SSL	No	No
100-D-101	100-D-101_Shallow	7439-92-1	Lead	71.4	10.2	NR	29.4	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
100-D-101	100-D-101_Shallow	7440-66-6	Zinc	192	480	NR	29.4	Sampling Maps (using PDF Measure)	NR	67.8	1	No	NR	No	No
100-D-101	100-D-101_Shallow	117-81-7	Bis(2-ethylhexyl) phthalate	0.201	0.6	NR	29.4	Sampling Maps (using PDF Measure)	NR	-	0.33	No	NR	No	No
100-D-101	100-D-101_Shallow	218-01-9	chrysene	2.47	0.12	NR	29.4	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	Yes
100-D-101	100-D-101_Shallow	206-44-0	fluoranthene	3.55	64	NR	29.4	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-101	100-D-101_Shallow	129-00-0	Pyrene	5.08	48	NR	29.4	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-101	100-D-101_Shallow	14808-79-8	Sulfate	2100	25000	1.26E+04	29.4	Sampling Maps (using PDF Measure)	4.29E+02	-	5	4.29E+02	Scaled GWP SSL	Yes	No
100-D-101	100-D-101_Shallow	108-88-3	Toluene	0.00065	720	1.00E+02	29.4	Sampling Maps (using PDF Measure)	3.40E+00	-	0.005	3.40E+00	Scaled GWP SSL	No	No
100-D-101	100-D-101_Shallow	67-64-1	Acetone	0.0075	64	3.66E+02	29.4	Sampling Maps (using PDF Measure)	1.25E+01	-	0.02	1.25E+01	Scaled GWP SSL	No	No
100-D-102	100-D-102_Shallow	7440-42-8	Boron	0.758	320	7.78E+03	78.5	Sampling Maps (using PDF Measure)	9.91E+01	3.89	2	9.91E+01	Scaled GWP SSL	No	No
100-D-102	100-D-102_Shallow	7439-98-7	Molybdenum	0.389	8	1.82E+04	78.5	Sampling Maps (using PDF Measure)	2.32E+02	0.47	2	2.32E+02	Scaled GWP SSL	No	No
100-D-102	100-D-102_Shallow	10045-97-3	Cesium-137	0.081	1465	NR	78.5	Sampling Maps (using PDF Measure)	NR	0.00105	0.1	No	NR	No	No
100-D-102	100-D-102_Shallow	SR-RAD	Total beta radiostrontium	0.438	27.6	2.94E+04	78.5	Sampling Maps (using PDF Measure)	3.74E+02	0.000178	---	3.74E+02	Scaled GWP SSL	No	No
100-D-102	100-D-102_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	5.99	1000	5.04E+02	78.5	Sampling Maps (using PDF Measure)	6.42E+00	-	---	6.42E+00	Scaled GWP SSL	No	No
100-D-103	100-D-103_Shallow	7439-98-7	molybdenum	0.27	8	1.82E+04	4	Sampling Maps (using PDF Measure)	4.55E+03	0.47	2	4.55E+03	Scaled GWP SSL	No	No

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-D-103	100-D-103_Shallow	117-81-7	Bis(2-ethylhexyl) phthalate	0.071	0.6	NR	4	Sampling Maps (using PDF Measure)	NR	-	0.33	No	NR	No	No
100-D-103	100-D-103_Shallow	78-93-3	2-Butanone	0.0065	480	NR	4	Sampling Maps (using PDF Measure)	NR	-	0.01	No	NR	No	No
100-D-103	100-D-103_Shallow	108-88-3	Toluene	0.004	64	NR	4	Sampling Maps (using PDF Measure)	NR	-	0.005	No	NR	No	No
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7440-42-8	Boron	1.35	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7439-98-7	Molybdenum	0.323	8	1.82E+04	1	pipelines	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7440-42-8	Boron	0.88	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7439-98-7	Molybdenum	0.27	8	1.82E+04	1	pipelines	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-42-8	Boron	1.25	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-43-9	Cadmium	0.884	0.81	2.69E+01	1	pipelines	2.69E+01	0.563	0.2	2.69E+01	Scaled GWP SSL	No	Yes
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-62-2	Vanadium	111	85.1	NR	1	pipelines	NR	85.1	2.5	No	NR	No	Yes
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-42-8	Boron	1.14	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-43-9	Cadmium	0.874	0.81	2.69E+01	1	pipelines	2.69E+01	0.563	0.2	2.69E+01	Scaled GWP SSL	No	Yes
100-D-105	100-D-105 Test Pit 13 (Segment 5)_Shallow	7440-66-6	Zinc	77	480	NR	1	pipelines	NR	67.8	1	No	NR	No	No
100-D-105	100-D-105 Test Pit 8 (Segment 11)_Shallow	7440-42-8	Boron	3.03	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 9 (Segment 12)_Shallow	7440-42-8	Boron	1.1	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 10 (Segment 14)_Shallow	7440-62-2	Vanadium	87.6	85.1	NR	1	pipelines	NR	85.1	2.5	No	NR	No	Yes
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7440-42-8	Boron	2.3	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7439-98-7	Molybdenum	0.26	8	1.82E+04	1	pipelines	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 12 (Segment 4)_Shallow	7440-42-8	Boron	1.55	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 13 (Segment 5)_Shallow	7440-42-8	Boron	1.030	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-105	100-D-105 Test Pit 13 (Segment 5)_Shallow	7440-43-9	Cadmium	0.238	0.81	2.69E+01	1	pipelines	2.69E+01	0.563	0.2	2.69E+01	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow	7440-42-8	Boron	2	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow	7439-98-7	Molybdenum	0.58	8	1.82E+04	1	pipelines	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow	7782-49-2	Selenium	0.81	5	2.01E+02	1	pipelines	2.01E+02	0.78	1	2.01E+02	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow	56-55-3	Benzo(a)anthracene	0.012	0.015	NR	1	pipelines	NR	-	0.015	No	NR	No	No
100-D-106	100-D-106_Shallow	50-32-8	Benzo(a)pyrene	0.0076	0.015	NR	1	pipelines	NR	-	0.015	No	NR	No	No
100-D-106	100-D-106_Shallow	218-01-9	chrysene	0.01	0.12	NR	1	pipelines	NR	-	0.1	No	NR	No	No
100-D-106	100-D-106_Shallow	206-44-0	fluoranthene	0.019	64	NR	1	pipelines	NR	-	0.05	No	NR	No	No
100-D-106	100-D-106_Shallow	129-00-0	Pyrene	0.015	48	NR	1	pipelines	NR	-	0.05	No	NR	No	No
100-D-106	100-D-106_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloro	0.00051	0.0257	NR	1	pipelines	NR	-	0.0033	No	NR	No	No
100-D-106	100-D-106_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloro	0.0014	0.0257	NR	1	pipelines	NR	-	0.0033	No	NR	No	No
100-D-106	100-D-106_Shallow Focused	7440-42-8	Boron	1.8	320	7.78E+03	1	pipelines	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow Focused	7439-98-7	Molybdenum	0.55	8	1.82E+04	1	pipelines	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow Focused	7782-49-2	Selenium	1.2	5	2.01E+02	1	pipelines	2.01E+02	0.78	1	2.01E+02	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow Focused	7440-66-6	Zinc	147	480	NR	1	pipelines	NR	67.8	1	No	NR	No	No
100-D-106	100-D-106_Shallow Focused	86-73-7	Fluorene	0.05	64	2.02E+03	1	pipelines	2.02E+03	-	0.03	2.02E+03	Scaled GWP SSL	No	No
100-D-106	100-D-106_Shallow Focused	50-29-3	4,4'-DDT	0.015	0.0257	NR	1	pipelines	NR	-	0.0033	No	NR	No	No
100-D-106	100-D-106_Shallow Focused	57-74-9	Chlordane	0.0077	0.025	NR	1	pipelines	NR	-	0.0165	No	NR	No	No
100-D-107	100-D-107_Shallow	7440-42-8	Boron	65.1	320	7.78E+03	33.4	Sampling Maps (using PDF Measure)	2.33E+02	3.89	2	2.33E+02	Scaled GWP SSL	No	No
100-D-107	100-D-107_Shallow	7439-98-7	Molybdenum	1.14	8	1.82E+04	33.4	Sampling Maps (using PDF Measure)	5.44E+02	0.47	2	5.44E+02	Scaled GWP SSL	No	No
100-D-107	100-D-107_Shallow	7440-62-2	Vanadium	106	85.1	NR	33.4	Sampling Maps (using PDF Measure)	NR	85.1	2.5	No	NR	No	Yes
100-D-107	100-D-107_Shallow	7440-36-0	Antimony	9.61	5	NR	33.4	Sampling Maps (using PDF Measure)	NR	0.13	0.6	No	NR	No	Yes
100-D-107	100-D-107_Shallow	7440-39-3	Barium	2380	200	3.89E+05	33.4	Sampling Maps (using PDF Measure)	1.16E+04	132	0.5	1.16E+04	Scaled GWP SSL	No	Yes
100-D-107	100-D-107_Shallow	7440-41-7	Beryllium	2.05	1.51	NR	33.4	Sampling Maps (using PDF Measure)	NR	1.51	0.2	No	NR	No	Yes
100-D-107	100-D-107_Shallow	7440-50-8	Copper	25.5	59.2	2.86E+05	33.4	Sampling Maps (using PDF Measure)	8.57E+03	22	1	8.57E+03	Scaled GWP SSL	No	No
100-D-107	100-D-107_Shallow	7439-92-1	Lead	64.7	10.2	NR	33.4	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
100-D-107	100-D-107_Shallow	7439-96-5	Manganese	531	512	NR	33.4	Sampling Maps (using PDF Measure)	NR	512	5	No	NR	No	Yes
100-D-107	100-D-107_Shallow	56-55-3	Benzo(a)anthracene	0.00149	0.015	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-107	100-D-107_Shallow	50-32-8	Benzo(a)pyrene	0.00102	0.015	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-107	100-D-107_Shallow	205-99-2	Benzo(b)fluoranthene	0.0021	0.015	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
100-D-107	100-D-107_Shallow	218-01-9	Chrysene	0.000921	0.12	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
100-D-107	100-D-107_Shallow	--	Dibenz(a,h)anthracene	0.00672	0.03	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
100-D-107	100-D-107_Shallow	206-44-0	Fluoranthene	0.00579	64	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
100-D-107	100-D-107_Shallow	85-01-8	Phenanthrene	0.00959	240	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-107	100-D-107_Shallow	11096-82-5	Aroclor-1260	0.00146	0.017	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
116-DR-3	116-DR-3_Shallow	10045-97-3	Cesium-137	0.0548	1465	NR	17.5	Sampling Maps (using PDF Measure)	NR	0.00105	0.1	No	NR	No	No
116-DR-3	116-DR-3_Shallow	10028-17-8	Tritium	0.471	12.6	2.06E+03	17.5	Sampling Maps (using PDF Measure)	1.18E+02	-	---	1.18E+02	Scaled GWP SSL	No	No
116-DR-3	116-DR-3_Shallow	7439-92-1	Lead	17.7	10.2	NR	17.5	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
116-DR-3	116-DR-3_Shallow	7782-49-2	Selenium	1.4	5	2.01E+02	17.5	Sampling Maps (using PDF Measure)	1.15E+01	0.78	1	1.15E+01	Scaled GWP SSL	No	No
116-DR-3	116-DR-3_Shallow	11096-82-5	Aroclor-1260	0.00146	-	NR	17.5	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	Yes
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	7440-42-8	Boron	2.2	320	7.78E+03	51.82	Average of 4 sites within 118-D-2:1	1.50E+02	3.89	2	1.50E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	7439-98-7	Molybdenum	0.39	8	1.82E+04	51.82	Average of 4 sites within 118-D-2:1	3.51E+02	0.47	2	3.51E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	10028-17-8	Tritium	0.071	12.6	2.06E+03	51.82	Average of 4 sites within 118-D-2:1	3.97E+01	-	---	3.97E+01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	205-99-2	Benzo(b)fluoranthene	0.0093	0.015	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.015	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	207-08-9	Benzo(k)fluoranthene	0.0039	0.015	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.015	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	206-44-0	Fluoranthene	0.017	64	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.05	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	129-00-0	Pyrene	0.015	48	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.05	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	7440-42-8	Boron	2.2	320	7.78E+03	51.82	Average of 4 sites within 118-D-2:1	1.50E+02	3.89	2	1.50E+02	Scaled GWP SSL	No	No

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	7439-98-7	Molybdenum	0.39	8	1.82E+04	51.82	Average of 4 sites within 118-D-2:1	3.51E+02	0.47	2	3.51E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0069	12.8	1.60E+01	51.82	Average of 4 sites within 118-D-2:1	3.08E-01	-	0.013	3.08E-01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10198-40-0	Cobalt-60	0.0329	13900	NR	51.82	Average of 4 sites within 118-D-2:1	NR	0.00000842	0.05	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10028-17-8	Tritium	0.127	12.6	2.06E+03	51.82	Average of 4 sites within 118-D-2:1	3.97E+01	-	---	3.97E+01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	120-12-7	Anthracene	0.0064	240	3.89E+05	51.82	Average of 4 sites within 118-D-2:1	7.51E+03	-	0.05	7.51E+03	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11097-69-1	Aroclor-1254	0.0095	0.017	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.0165	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11096-82-5	Aroclor-1260	0.0069	0.017	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.0165	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	56-55-3	Benzo(a)anthracene	0.0064	0.015	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.015	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	218-01-9	Chrysene	0.017	0.12	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.1	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	206-44-0	Fluoranthene	0.038	64	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.05	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	91-20-3	Naphthalene	0.02	16	1.58E+02	51.82	Average of 4 sites within 118-D-2:1	3.06E+00	-	0.1	3.06E+00	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	85-01-8	Phenanthrene	0.024	240	NA	51.82	Average of 4 sites within 118-D-2:1	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	129-00-0	Pyrene	0.026	48	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.05	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	7440-42-8	Boron	1.7	320	7.78E+03	51.82	Average of 4 sites within 118-D-2:1	1.50E+02	3.89	2	1.50E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	7439-98-7	Molybdenum	0.43	8	1.82E+04	51.82	Average of 4 sites within 118-D-2:1	3.51E+02	0.47	2	3.51E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10045-97-3	Cesium-137	1.31	1465	NR	51.82	Average of 4 sites within 118-D-2:1	NR	0.00105	0.1	No	NR	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	SR-RAD	Total beta radiostrontium	1.67	27.6	2.94E+04	51.82	Average of 4 sites within 118-D-2:1	5.67E+02	0.000178	---	5.67E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10028-17-8	Tritium	1.56	12.6	2.06E+03	51.82	Average of 4 sites within 118-D-2:1	3.97E+01	-	---	3.97E+01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	11097-69-1	Aroclor-1254	0.041	0.017	NR	51.82	Average of 4 sites within 118-D-2:1	NR	-	0.0165	No	NR	No	Yes
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0056	12.8	1.60E+01	51.82	Average of 4 sites within 118-D-2:1	3.08E-01	-	0.013	3.08E-01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10045-97-3	Cesium-137	1.61	1465	NR	51.82	Average of 4 sites within 118-D-2:1	NR	0.00105	0.1	No	NR	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10098-97-2	Total beta radiostrontium	2.01	27.6	2.94E+04	51.82	Average of 4 sites within 118-D-2:1	5.67E+02	0.000178	---	5.67E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10028-17-8	Tritium	11.2	12.6	2.06E+03	51.82	Average of 4 sites within 118-D-2:1	3.97E+01	-	---	3.97E+01	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7440-42-8	Boron	1.2	320	7.78E+03	51.82	Average of 4 sites within 118-D-2:1	1.50E+02	3.89	2	1.50E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7439-98-7	Molybdenum	0.48	8	1.82E+04	51.82	Average of 4 sites within 118-D-2:1	3.51E+02	0.47	2	3.51E+02	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7782-49-2	Selenium	0.84	5	2.01E+02	51.82	Average of 4 sites within 118-D-2:1	3.87E+00	0.78	1	3.87E+00	Scaled GWP SSL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.013	12.8	1.60E+01	51.82	Average of 4 sites within 118-D-2:1	3.08E-01	-	0.013	3.08E-01	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	10028-17-8	Tritium	0.0152	12.6	2.06E+03	14.8	Sampling Maps (using PDF Measure)	1.39E+02	-	---	1.39E+02	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7440-42-8	Boron	2.3	320	7.78E+03	14.8	Sampling Maps (using PDF Measure)	5.25E+02	3.89	2	5.25E+02	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-98-7	Molybdenum	0.67	8	1.82E+04	14.8	Sampling Maps (using PDF Measure)	1.23E+03	0.47	2	1.23E+03	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-92-1	Lead	24.4	10.2	NR	14.8	Sampling Maps (using PDF Measure)	NR	10.2	0.5	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-97-6	Mercury	0.77	0.33	NR	14.8	Sampling Maps (using PDF Measure)	NR	0.0131	---	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	120-12-7	Anthracene	0.01	240	3.89E+05	14.8	Sampling Maps (using PDF Measure)	2.63E+04	-	0.05	2.63E+04	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	11096-82-5	Aroclor-1260	0.031	0.017	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	56-55-3	Benzo(a)anthracene	0.04	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	50-32-8	Benzo(a)pyrene	0.086	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	205-99-2	Benzo(b)fluoranthene	0.032	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	191-24-2	Benzo(ghi)perylene	0.036	48	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	207-08-9	Benzo(k)fluoranthene	0.046	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	218-01-9	Chrysene	0.037	0.12	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	206-44-0	Fluoranthene	0.061	64	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.05	0.33	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	85-01-8	Phenanthrene	0.093	240	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	129-00-0	Pyrene	0.19	48	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	7440-42-8	Boron	1.5	320	7.78E+03	14.8	Sampling Maps (using PDF Measure)	5.25E+02	3.89	2	5.25E+02	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	14133-76-7	Technetium-99	0.363	0.46	4.54E+01	14.8	Sampling Maps (using PDF Measure)	3.07E+00	-	---	3.07E+00	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	10028-17-8	Tritium	0.0287	12.3	2.06E+03	14.8	Sampling Maps (using PDF Measure)	1.39E+02	-	---	1.39E+02	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	120-12-7	Anthracene	0.05	240	3.89E+05	14.8	Sampling Maps (using PDF Measure)	2.63E+04	-	0.05	2.63E+04	Scaled GWP SSL	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	11096-82-5	Aroclor-1260	0.0055	0.017	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.0165	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	56-55-3	Benzo(a)anthracene	0.054	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes

Table 2. Comparison of EPCs from the 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
118-D-2:2	118-D-2:2: Sample Area B_Shallow	50-32-8	Benzo(a)pyrene	0.042	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	205-99-2	Benzo(b)fluoranthene	0.052	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	191-24-2	Benzo(ghi)perylene	0.026	48	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	207-08-9	Benzo(k)fluoranthene	0.027	0.015	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	218-01-9	Chrysene	0.057	0.12	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	206-44-0	Fluoranthene	0.068	64	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.033	0.33	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	85-01-8	Phenanthrene	0.029	240	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	129-00-0	Pyrene	0.058	48	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	7439-98-7	Molybdenum	0.24	8	1.82E+04	30.287	Sampling Maps (using PDF Measure)	6.00E+02	0.47	2	6.00E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	10028-17-8	Tritium	0.0276	12.6	2.06E+03	30.287	Sampling Maps (using PDF Measure)	6.79E+01	-	---	6.79E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.2	100	5.04E+02	30.287	Sampling Maps (using PDF Measure)	1.66E+01	-	---	1.66E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	56-55-3	Benzo(a)anthracene	0.023	0.015	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	50-32-8	Benzo(a)pyrene	0.029	0.015	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	205-99-2	Benzo(b)fluoranthene	0.03	0.015	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	191-24-2	Benzo(ghi)perylene	0.02	48	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	207-08-9	Benzo(k)fluoranthene	0.019	0.015	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	218-01-9	Chrysene	0.027	0.12	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	206-44-0	Fluoranthene	0.035	64	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	0.33	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.03	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	129-00-0	Pyrene	0.043	48	NR	30.287	Sampling Maps (using PDF Measure)	NR	-	0.05	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	75-09-2	Methylene chloride	0.0022	0.5	2.90E-01	30.287	Sampling Maps (using PDF Measure)	9.57E-03	-	0.005	9.57E-03	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	13981-37-8	Nickel-63	6.29	83	NR	37.83	Sampling Maps (using PDF Measure)	NR	-	---	No	NR	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	10028-17-8	Tritium	0.0264	12.6	2.06E+03	37.83	Sampling Maps (using PDF Measure)	5.44E+01	-	---	5.44E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	7440-42-8	Boron	0.91	320	7.78E+03	37.83	Sampling Maps (using PDF Measure)	2.06E+02	3.89	2	2.06E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	7439-98-7	Molybdenum	0.25	8	1.82E+04	37.83	Sampling Maps (using PDF Measure)	4.81E+02	0.47	2	4.81E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	67-64-1	Acetone	0.02	720	3.66E+02	37.83	Sampling Maps (using PDF Measure)	9.68E+00	-	0.02	9.68E+00	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0.78	100	5.04E+02	37.83	Sampling Maps (using PDF Measure)	1.33E+01	-	---	1.33E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	13981-37-8	Nickel-63	7.72	83	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	---	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	SR-RAD	Total beta radiostrontium	0.384	27.6	2.94E+04	19.435	Sampling Maps (using PDF Measure)	1.51E+03	0.000178	---	1.51E+03	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	7440-42-8	Boron	1.2	320	7.78E+03	19.435	Sampling Maps (using PDF Measure)	4.00E+02	3.89	2	4.00E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	7439-98-7	Molybdenum	1.1	8	1.82E+04	19.435	Sampling Maps (using PDF Measure)	9.36E+02	0.47	2	9.36E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	67-64-1	Acetone	0.0088	720	3.66E+02	19.435	Sampling Maps (using PDF Measure)	1.88E+01	-	0.02	1.88E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	21	100	5.04E+02	19.435	Sampling Maps (using PDF Measure)	2.59E+01	-	---	2.59E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	56-55-3	Benzo(a)anthracene	0.013	0.015	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	50-32-8	Benzo(a)pyrene	0.046	0.015	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	205-99-2	Benzo(b)fluoranthene	0.049	0.015	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	191-24-2	Benzo(ghi)perylene	0.022	48	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	207-08-9	Benzo(k)fluoranthene	0.021	0.015	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	218-01-9	Chrysene	0.032	0.12	NR	19.435	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10045-97-3	Cesium-137	1.59	1465	NR	25.51	Sampling Maps (using PDF Measure)	NR	0.00105	0.1	No	NR	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10198-40-0	Cobalt-60	0.159	13900	NR	25.51	Sampling Maps (using PDF Measure)	NR	0.00000842	0.05	No	NR	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	13981-37-8	Nickel-63	515	83	NR	25.51	Sampling Maps (using PDF Measure)	NR	-	---	No	NR	No	Yes
118-D-3:1	118-D-3:1_Deep Zone 2	SR-RAD	Total beta radiostrontium	0.225	27.6	2.94E+04	25.51	Sampling Maps (using PDF Measure)	1.15E+03	0.000178	---	1.15E+03	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10028-17-8	Tritium	0.0568	12.6	2.06E+03	25.51	Sampling Maps (using PDF Measure)	8.06E+01	-	---	8.06E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	7440-42-8	Boron	0.97	320	7.78E+03	25.51	Sampling Maps (using PDF Measure)	3.05E+02	3.89	2	3.05E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	7439-98-7	Molybdenum	0.23	8	1.82E+04	25.51	Sampling Maps (using PDF Measure)	7.13E+02	0.47	2	7.13E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	67-64-1	Acetone	0.012	720	3.66E+02	25.51	Sampling Maps (using PDF Measure)	1.44E+01	-	0.02	1.44E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	4.3	100	5.04E+02	25.51	Sampling Maps (using PDF Measure)	1.98E+01	-	---	1.98E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	10028-17-8	Tritium	0.0808	12.6	2.06E+03	19.78	Sampling Maps (using PDF Measure)	1.04E+02	-	---	1.04E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	7439-98-7	Molybdenum	0.22	8	1.82E+04	19.78	Sampling Maps (using PDF Measure)	9.19E+02	0.47	2	9.19E+02	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	67-64-1	Acetone	0.0063	720	3.66E+02	19.78	Sampling Maps (using PDF Measure)	1.85E+01	-	0.02	1.85E+01	Scaled GWP SSL	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.2	100	5.04E+02	19.78	Sampling Maps (using PDF Measure)	2.55E+01	-	---	2.55E+01	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Zone	10028-17-8	Tritium	0.0627	12.6	2.06E+03	19.21	Sampling Maps (using PDF Measure)	1.07E+02	-	---	1.07E+02	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Zone	7440-42-8	Boron	1.7	320	7.78E+03	19.21	Sampling Maps (using PDF Measure)	4.05E+02	3.89	2	4.05E+02	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Zone	16887-00-6	Chloride	147	25000	1.26E+04	19.21	Sampling Maps (using PDF Measure)	6.56E+02	-	2	6.56E+02	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Zone	75-09-2	Methylene chloride	0.0014	0.5	2.90E-01	19.21	Sampling Maps (using PDF Measure)	1.51E-02	-	0.005	1.51E-02	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Focused	7440-42-8	Boron	1.7	320	7.78E+03	19.21	Sampling Maps (using PDF Measure)	4.05E+02	3.89	2	4.05E+02	Scaled GWP SSL	No	No
118-D-3:2	118-D-3:2_Shallow Focused	131-11-3	Dimethyl phthalate	0.55	1600	NA	19.21	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	7440-42-8	Boron	2.1	320	7.78E+03	1	Sampling Maps (using PDF Measure)	7.78E+03	3.89	2	7.78E+03	Scaled GWP SSL	No	No
1607-D2:5	1607-D2:5_Shallow	7439-98-7	Molybdenum	0.53	8	1.82E+04	1	Sampling Maps (using PDF Measure)	1.82E+04	0.47	2	1.82E+04	Scaled GWP SSL	No	No
1607-D2:5	1607-D2:5_Shallow	7782-49-2	Selenium	0.85	5	2.01E+02	1	Sampling Maps (using PDF Measure)	2.01E+02	0.78	1	2.01E+02	Scaled GWP SSL	No	No
1607-D2:5	1607-D2:5_Shallow	56-55-3	Benzo(a)anthracene	0.0055	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
1607-D2:5	1607-D2:5_Shallow	50-32-8	Benzo(a)pyrene	0.0086	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
1607-D2:5	1607-D2:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.011	0.015	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.015	No	NR	No	No
1607-D2:5	1607-D2:5_Shallow	218-01-9	Chrysene	0.0062	0.12	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.1	No	NR	No	No

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

2. ECF-HANFORD-11-0063. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

NR – the calculated soil screening level for the COPC is non-representative (ECF-HANFORD-12-0004), indicating no effective limit either because there was no simulated COPC breakthrough within 1000 years, or because the calculated soil concentration limit is higher than is physically possible to exist.

NA - Indicates that a drinking water standard was not available.

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7440-42-8	Boron	25.7	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7439-98-7	Molybdenum	0.31	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7439-92-1	Lead	17.3	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	95-95-4	2,4,5-Trichlorophenol	0.016	80	1.15E+04	1	pipelines	1.15E+04	-	0.33	1.15E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0011	0.0257	2.07E+03	1	pipelines	2.07E+03	-	0.0033	2.07E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0029	0.0257	NR	1	pipelines	NR	-	0.0033	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11097-69-1	Aroclor-1254	0.024	0.017	1.85E+03	1	pipelines	1.85E+03	-	0.0165	1.85E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11096-82-5	Aroclor-1260	0.017	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	83-32-9	Acenaphthene	0.016	96	2.09E+04	1	pipelines	2.09E+04	-	0.1	2.09E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	56-55-3	Benzo(a)anthracene	0.032	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-32-8	Benzo(a)pyrene	0.047	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	205-99-2	Benzo(b)fluoranthene	0.037	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	191-24-2	Benzo(ghi)perylene	0.043	48	NA	1	pipelines	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	207-08-9	Benzo(k)fluoranthene	0.013	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	218-01-9	Chrysene	0.029	0.12	NR	1	pipelines	NR	-	0.1	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	206-44-0	Fluoranthene	0.078	64	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	86-73-7	Fluorene	0.012	64	2.18E+04	1	pipelines	2.18E+04	-	0.03	2.18E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.025	0.33	NR	1	pipelines	NR	-	0.03	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	85-01-8	Phenanthrene	0.07	240	NA	1	pipelines	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	129-00-0	Pyrene	0.082	48	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	541-73-1	1,3-Dichlorobenzene	0.014	24	NA	1	pipelines	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	106-46-7	1,4-Dichlorobenzene	0.014	0.33	4.59E+01	1	pipelines	4.59E+01	-	0.005	4.59E+01	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	88-06-2	2,4,6-Trichlorophenol	0.013	0.795	1.46E+01	1	pipelines	1.46E+01	-	0.33	1.46E+01	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	91-58-7	2-Chloronaphthalene	0.018	64	1.43E+04	1	pipelines	1.43E+04	-	0.33	1.43E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	13981-37-8	Nickel-63	8.99	83	1.70E+06	1	pipelines	1.70E+06	-	---	1.70E+06	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7440-42-8	Boron	3.6	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7440-47-3	Chromium	21.2	18.5	NR	1	pipelines	NR	18.5	0.2	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-92-1	Lead	21.1	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-97-6	Mercury	4.9	0.33	2.83E+03	1	pipelines	2.83E+03	0.0131	---	2.83E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00026	0.0257	2.07E+03	1	pipelines	2.07E+03	-	0.0033	2.07E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00065	0.0257	NR	1	pipelines	NR	-	0.0033	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11097-69-1	Aroclor-1254	0.01	0.017	1.85E+03	1	pipelines	1.85E+03	-	0.0165	1.85E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11096-82-5	Aroclor-1260	0.034	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	83-32-9	Acenaphthene	0.013	96	2.09E+04	1	pipelines	2.09E+04	-	0.1	2.09E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	56-55-3	Benzo(a)anthracene	0.024	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-32-8	Benzo(a)pyrene	0.027	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.026	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.008	48	NA	1	pipelines	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.01	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	218-01-9	Chrysene	0.021	0.12	NR	1	pipelines	NR	-	0.1	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	131-11-3	Dimethyl phthalate	0.043	1600	NA	1	pipelines	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	206-44-0	Fluoranthene	0.059	64	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	86-73-7	Fluorene	0.012	64	2.18E+04	1	pipelines	2.18E+04	-	0.03	2.18E+04	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	0.33	NR	1	pipelines	NR	-	0.03	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	85-01-8	Phenanthrene	0.048	240	NA	1	pipelines	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	129-00-0	Pyrene	0.059	48	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-50-8	Copper	24.9	59.2	1.36E+05	1	pipelines	1.36E+05	22	1	1.36E+05	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-42-8	Boron	17.6	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-98-7	Molybdenum	1.66	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	14808-79-8	Sulfate	426	25000	1.39E+05	1	pipelines	1.39E+05	-	5	1.39E+05	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-92-1	Lead	27.2	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-97-6	Mercury	4.85	0.33	2.83E+03	1	pipelines	2.83E+03	0.0131	---	2.83E+03	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-22-4	Silver	3.14	100	5.57E+02	1	pipelines	5.57E+02	0.167	0.2	5.57E+02	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11097-69-1	Aroclor-1254	0.0393	0.017	1.85E+03	1	pipelines	1.85E+03	-	0.0165	1.85E+03	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11096-82-5	Aroclor-1260	0.0115	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7440-42-8	Boron	1.7	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7439-98-7	Molybdenum	0.32	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7440-47-3	Chromium	19	18.5	NR	1	pipelines	NR	18.5	0.2	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7782-49-2	Selenium	1.4	5	2.22E+03	1	pipelines	2.22E+03	0.78	1	2.22E+03	Scaled GWP SSL	No	No

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00037	0.0257	2.07E+03	1	pipelines	2.07E+03	-	0.0033	2.07E+03	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	131-11-3	Dimethyl phthalate	0.095	1600	NA	1	pipelines	NA	-	0.33	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	7440-42-8	Boron	6.8	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	7439-98-7	Molybdenum	0.3	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	7439-92-1	Lead	35.9	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	11097-69-1	Aroclor-1254	0.0071	0.017	1.85E+03	1	pipelines	1.85E+03	-	0.0165	1.85E+03	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	11096-82-5	Aroclor-1260	0.27	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0046	0.0257	NR	1	pipelines	NR	-	0.0033	NR	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	72-43-5	Methoxychlor	0.0011	4	2.41E+05	1	pipelines	2.41E+05	-	0.0165	2.41E+05	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	131-11-3	Dimethyl phthalate	0.056	1600	NA	1	pipelines	NA	-	0.33	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	129-00-0	Pyrene	0.035	48	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	7439-92-1	Lead	37.3	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:4	100-H-28:4_Shallow	7439-98-7	Molybdenum	0.36	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	7782-49-2	Selenium	0.87	5	2.22E+03	1	pipelines	2.22E+03	0.78	1	2.22E+03	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	11097-69-1	Aroclor-1254	0.0054	0.017	1.85E+03	1	pipelines	1.85E+03	-	0.0165	1.85E+03	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	11096-82-5	Aroclor-1260	0.061	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:4	100-H-28:4_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0011	0.0257	2.07E+03	1	pipelines	2.07E+03	-	0.0033	2.07E+03	Scaled GWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	60-57-1	Dieldrin	0.00092	0.0033	1.47E+00	1	pipelines	1.47E+00	-	0.0033	1.47E+00	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7440-42-8	Boron	2.4	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7439-98-7	Molybdenum	0.286	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7439-92-1	Lead	24	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7782-49-2	Selenium	0.781	5	2.22E+03	1	pipelines	2.22E+03	0.78	1	2.22E+03	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	11096-82-5	Aroclor-1260	0.00877	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00435	0.0257	2.07E+03	1	pipelines	2.07E+03	-	0.0033	2.07E+03	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.000447	0.0257	NR	1	pipelines	NR	-	0.0033	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	83-32-9	Acenaphthene	0.022	96	2.09E+04	1	pipelines	2.09E+04	-	0.1	2.09E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	120-12-7	Anthracene	0.0197	240	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	56-55-3	Benzo(a)anthracene	0.0534	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-32-8	Benzo(a)pyrene	0.0472	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.0518	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	191-24-2	Benzo(ghi)perylene	0.0987	48	NA	1	pipelines	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	207-08-9	Benzo(k)fluoranthene	0.62	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	218-01-9	Chrysene	0.187	0.12	NR	1	pipelines	NR	-	0.1	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	--	Dibenz(a,h)anthracene	0.018	0.03	NR	1	pipelines	NR	-	0.03	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	206-44-0	Fluoranthene	0.073	64	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	86-73-7	Fluorene	0.019	64	2.18E+04	1	pipelines	2.18E+04	-	0.03	2.18E+04	Scaled GWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.026	0.33	NR	1	pipelines	NR	-	0.03	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	85-01-8	Phenanthrene	0.12	240	NA	1	pipelines	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	129-00-0	Pyrene	0.331	48	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:7	100-H-28:7_Shallow	7440-47-3	Chromium	20.9	18.5	NR	1	pipelines	NR	18.5	0.2	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	7440-42-8	Boron	1.4	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-28:7	100-H-28:7_Shallow	7439-98-7	Molybdenum	0.36	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-28:7	100-H-28:7_Shallow	7439-92-1	Lead	13.8	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	50-32-8	Benzo(a)pyrene	0.02	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	205-99-2	Benzo(b)fluoranthene	0.0075	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	207-08-9	Benzo(k)fluoranthene	0.027	0.015	NR	1	pipelines	NR	-	0.015	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	218-01-9	Chrysene	0.0063	0.12	NR	1	pipelines	NR	-	0.1	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	206-44-0	Fluoranthene	0.048	64	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:7	100-H-28:7_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.017	0.33	NR	1	pipelines	NR	-	0.03	NR	-	No	No
100-H-28:7	100-H-28:7_Shallow	85-01-8	Phenanthrene	0.038	240	NA	1	pipelines	NA	-	0.05	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	129-00-0	Pyrene	0.097	48	3.89E+05	1	pipelines	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	7439-92-1	Lead	12	10.2	NR	65.1367	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	7440-42-8	Boron	1	320	8.59E+04	65.1367	Sampling Maps (using PDF Measure)	1.32E+03	3.89	2	1.32E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.005	0.0257	2.07E+03	65.1367	Sampling Maps (using PDF Measure)	3.17E+01	-	0.0033	3.17E+01	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00068	0.0257	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	56-55-3	Benzo(a)anthracene	0.016	0.015	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	50-32-8	Benzo(a)pyrene	0.026	0.015	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	205-99-2	Benzo(b)fluoranthene	0.028	0.015	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	191-24-2	Benzo(ghi)perylene	0.025	48	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	207-08-9	Benzo(k)fluoranthene	0.011	0.015	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	218-01-9	Chrysene	0.023	0.12	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	206-44-0	Fluoranthene	0.033	64	3.89E+05	65.1367	Sampling Maps (using PDF Measure)	5.97E+03	-	0.05	5.97E+03	Scaled GWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.021	0.33	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	85-01-8	Phenanthrene	0.016	240	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	129-00-0	Pyrene	0.034	48	3.89E+05	65.1367	Sampling Maps (using PDF Measure)	5.97E+03	-	0.05	5.97E+03	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	7440-42-8	Boron	1.4	320	8.59E+04	35.46	Sampling Maps (using PDF Measure)	2.42E+03	3.89	2	2.42E+03	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	7439-98-7	Molybdenum	0.37	8	1.51E+04	35.46	Sampling Maps (using PDF Measure)	4.27E+02	0.47	2	4.27E+02	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	7439-92-1	Lead	55.4	10.2	NR	35.46	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-43	100-H-43_Shallow	7782-49-2	Selenium	0.98	5	2.22E+03	35.46	Sampling Maps (using PDF Measure)	6.25E+01	0.78	1	6.25E+01	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	83-32-9	Acenaphthene	0.014	96	2.09E+04	35.46	Sampling Maps (using PDF Measure)	5.89E+02	-	0.1	5.89E+02	Scaled GWP SSL	No	No

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-H-43	100-H-43_Shallow	56-55-3	Benzo(a)anthracene	0.082	0.015	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-43	100-H-43_Shallow	50-32-8	Benzo(a)pyrene	0.081	0.015	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-43	100-H-43_Shallow	205-99-2	Benzo(b)fluoranthene	0.077	0.015	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-43	100-H-43_Shallow	191-24-2	Benzo(ghi)perylene	0.043	48	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-43	100-H-43_Shallow	207-08-9	Benzo(k)fluoranthene	0.041	0.015	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-43	100-H-43_Shallow	218-01-9	Chrysene	0.09	0.12	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-43	100-H-43_Shallow	--	Dibenz(a,h)anthracene	0.02	0.03	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-43	100-H-43_Shallow	206-44-0	Fluoranthene	0.069	64	3.89E+05	35.46	Sampling Maps (using PDF Measure)	1.10E+04	-	0.05	1.10E+04	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	86-73-7	Fluorene	0.01	64	2.18E+04	35.46	Sampling Maps (using PDF Measure)	6.15E+02	-	0.03	6.15E+02	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.076	0.33	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-43	100-H-43_Shallow	85-01-8	Phenanthrene	0.054	240	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-43	100-H-43_Shallow	129-00-0	Pyrene	0.099	48	3.89E+05	35.46	Sampling Maps (using PDF Measure)	1.10E+04	-	0.05	1.10E+04	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	11097-69-1	Aroclor-1254	0.003	0.017	1.85E+03	35.46	Sampling Maps (using PDF Measure)	5.21E+01	-	0.0165	5.21E+01	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow	60-57-1	Dieldrin	0.00076	0.0033	1.47E+00	35.46	Sampling Maps (using PDF Measure)	4.13E-02	-	0.0033	4.13E-02	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	7440-42-8	Boron	2	320	8.59E+04	35.46	Sampling Maps (using PDF Measure)	2.42E+03	3.89	2	2.42E+03	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	7439-92-1	Lead	37.7	10.2	NR	35.46	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-43	100-H-43_Shallow Focused	7439-98-7	Molybdenum	0.25	8	1.51E+04	35.46	Sampling Maps (using PDF Measure)	4.27E+02	0.47	2	4.27E+02	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	7782-49-2	Selenium	0.81	5	2.22E+03	35.46	Sampling Maps (using PDF Measure)	6.25E+01	0.78	1	6.25E+01	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	56-55-3	Benzo(a)anthracene	0.0042	0.015	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-43	100-H-43_Shallow Focused	218-01-9	Chrysene	0.006	0.12	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-43	100-H-43_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0025	0.0257	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-43	100-H-43_Shallow Focused	60-57-1	Dieldrin	0.0025	0.0033	1.47E+00	35.46	Sampling Maps (using PDF Measure)	4.13E-02	-	0.0033	4.13E-02	Scaled GWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	72-20-8	Endrin	0.00053	0.2	2.02E+02	35.46	Sampling Maps (using PDF Measure)	5.70E+00	-	0.0033	5.70E+00	Scaled GWP SSL	No	No
100-H-46	100-H-46_Shallow_DU1	7440-50-8	Copper	24	59.2	1.36E+05	14.53	Sampling Maps (using PDF Measure)	9.39E+03	22	1	9.39E+03	Scaled GWP SSL	No	No
100-H-46	100-H-46_Shallow_DU1	7440-42-8	Boron	1.9	320	8.59E+04	14.53	Sampling Maps (using PDF Measure)	5.91E+03	3.89	2	5.91E+03	Scaled GWP SSL	No	No
100-H-46	100-H-46_Shallow_DU1	7439-98-7	Molybdenum	0.77	8	1.51E+04	14.53	Sampling Maps (using PDF Measure)	1.04E+03	0.47	2	1.04E+03	Scaled GWP SSL	No	No
100-H-46	100-H-46_Shallow_DU2	7440-42-8	Boron	1.2	320	8.59E+04	33.16	Sampling Maps (using PDF Measure)	2.59E+03	3.89	2	2.59E+03	Scaled GWP SSL	No	No
100-H-46	100-H-46_Shallow_DU2	7439-98-7	Molybdenum	0.33	8	1.51E+04	33.16	Sampling Maps (using PDF Measure)	4.56E+02	0.47	2	4.56E+02	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7440-42-8	Boron	7.6	320	8.59E+04	19.83	Sampling Maps (using PDF Measure)	4.33E+03	3.89	2	4.33E+03	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7439-98-7	Molybdenum	0.31	8	1.51E+04	19.83	Sampling Maps (using PDF Measure)	7.63E+02	0.47	2	7.63E+02	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7439-92-1	Lead	36.1	10.2	NR	19.83	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	83-32-9	Acenaphthene	0.26	96	2.09E+04	19.83	Sampling Maps (using PDF Measure)	1.05E+03	-	0.1	1.05E+03	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	208-96-8	Acenaphthylene	0.049	96	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	120-12-7	Anthracene	0.29	240	3.89E+05	19.83	Sampling Maps (using PDF Measure)	1.96E+04	-	0.05	1.96E+04	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	56-55-3	Benzo(a)anthracene	180	0.015	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	50-32-8	Benzo(a)pyrene	14	0.015	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	205-99-2	Benzo(b)fluoranthene	6.9	0.015	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	191-24-2	Benzo(ghi)perylene	4.3	48	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	207-08-9	Benzo(k)fluoranthene	2.8	0.015	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	218-01-9	Chrysene	10	0.12	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	--	Dibenz(a,h)anthracene	0.13	0.03	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	206-44-0	Fluoranthene	54	64	3.89E+05	19.83	Sampling Maps (using PDF Measure)	1.96E+04	-	0.05	1.96E+04	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	86-73-7	Fluorene	0.19	64	2.18E+04	19.83	Sampling Maps (using PDF Measure)	1.10E+03	-	0.03	1.10E+03	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	3.2	0.33	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	85-01-8	Phenanthrene	51	240	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	129-00-0	Pyrene	31	48	3.89E+05	19.83	Sampling Maps (using PDF Measure)	1.96E+04	-	0.05	1.96E+04	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11097-69-1	Aroclor-1254	0.23	0.017	1.85E+03	19.83	Sampling Maps (using PDF Measure)	9.31E+01	-	0.0165	9.31E+01	Scaled GWP SSL	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11096-82-5	Aroclor-1260	0.033	0.017	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	7440-42-8	Boron	4.1	320	8.59E+04	11.73	Sampling Maps (using PDF Measure)	7.32E+03	3.89	2	7.32E+03	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	7439-98-7	Molybdenum	0.25	8	1.51E+04	11.73	Sampling Maps (using PDF Measure)	1.29E+03	0.47	2	1.29E+03	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	7439-92-1	Lead	27.5	10.2	NR	11.73	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	7440-50-8	Copper	23.1	59.2	1.36E+05	11.73	Sampling Maps (using PDF Measure)	1.16E+04	22	1	1.16E+04	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	208-96-8	Acenaphthylene	0.082	96	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	56-55-3	Benzo(a)anthracene	0.16	0.015	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	50-32-8	Benzo(a)pyrene	0.12	0.015	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.13	0.015	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.14	48	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.068	0.015	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	218-01-9	Chrysene	0.15	0.12	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	206-44-0	Fluoranthene	0.31	64	3.89E+05	11.73	Sampling Maps (using PDF Measure)	3.32E+04	-	0.05	3.32E+04	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	86-73-7	Fluorene	0.021	64	2.18E+04	11.73	Sampling Maps (using PDF Measure)	1.86E+03	-	0.03	1.86E+03	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.067	0.33	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	91-20-3	Naphthalene	0.013	16	1.74E+03	11.73	Sampling Maps (using PDF Measure)	1.48E+02	-	0.1	1.48E+02	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	85-01-8	Phenanthrene	0.45	240	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	129-00-0	Pyrene	0.28	48	3.89E+05	11.73	Sampling Maps (using PDF Measure)	3.32E+04	-	0.05	3.32E+04	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	11096-82-5	Aroclor-1260	0.035	0.017	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.004	0.0257	2.07E+03	11.73	Sampling Maps (using PDF Measure)	1.76E+02	-	0.0033	1.76E+02	Scaled GWP SSL	No	No
100-H-49:1	100-H-49:1_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0023	0.0257	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	7440-42-8	Boron	1.8	320	8.59E+04	15.32	Sampling Maps (using PDF Measure)	5.61E+03	3.89	2	5.61E+03	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	7439-98-7	Molybdenum	0.35	8	1.51E+04	15.32	Sampling Maps (using PDF Measure)	9.87E+02	0.47	2	9.87E+02	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	7439-92-1	Lead	81.3	10.2	NR	15.32	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	83-32-9	Acenaphthene	0.02	96	2.09E+04	15.32	Sampling Maps (using PDF Measure)	1.36E+03	-	0.1	1.36E+03	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	56-55-3	Benzo(a)anthracene	0.12	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	50-32-8	Benzo(a)pyrene	0.093	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	205-99-2	Benzo(b)fluoranthene	0.092	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
100-H-51:1	100-H-51:1_Shallow	191-24-2	Benzo(ghi)perylene	0.063	48	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	207-08-9	Benzo(k)fluoranthene	0.014	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	218-01-9	Chrysene	0.12	0.12	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	206-44-0	Fluoranthene	0.14	64	3.89E+05	15.32	Sampling Maps (using PDF Measure)	2.54E+04	-	0.05	2.54E+04	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	86-73-7	Fluorene	0.0087	64	2.18E+04	15.32	Sampling Maps (using PDF Measure)	1.42E+03	-	0.03	1.42E+03	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.038	0.033	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	91-20-3	Naphthalene	0.016	16	1.74E+03	15.32	Sampling Maps (using PDF Measure)	1.13E+02	-	0.1	1.13E+02	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	85-01-8	Phenanthrene	0.035	240	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	129-00-0	Pyrene	0.14	48	3.89E+05	15.32	Sampling Maps (using PDF Measure)	2.54E+04	-	0.05	2.54E+04	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0018	0.0257	2.07E+03	15.32	Sampling Maps (using PDF Measure)	1.35E+02	-	0.0033	1.35E+02	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0023	0.0257	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	7439-92-1	Lead	14.7	10.2	NR	15.32	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	7440-42-8	Boron	1	320	8.59E+04	15.32	Sampling Maps (using PDF Measure)	5.61E+03	3.89	2	5.61E+03	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow focused	50-32-8	Benzo(a)pyrene	0.013	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	205-99-2	Benzo(b)fluoranthene	0.0059	0.015	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	218-01-9	Chrysene	0.0076	0.12	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	206-44-0	Fluoranthene	0.016	64	3.89E+05	15.32	Sampling Maps (using PDF Measure)	2.54E+04	-	0.05	2.54E+04	Scaled GWP SSL	No	No
100-H-51:1	100-H-51:1_Shallow focused	85-01-8	Phenanthrene	0.015	240	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	129-00-0	Pyrene	0.019	48	3.89E+05	15.32	Sampling Maps (using PDF Measure)	2.54E+04	-	0.05	2.54E+04	Scaled GWP SSL	No	No
100-H-51:2	100-H-51:2_Shallow	7440-42-8	Boron	2.5	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-51:2	100-H-51:2_Shallow	11096-82-5	Aroclor-1260	0.013	0.017	NR	1	pipelines	NR	-	0.0165	NR	-	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-42-8	Boron	47.3	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7439-98-7	Molybdenum	3.5	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-39-3	Barium	211	200	3.89E+05	1	pipelines	3.89E+05	132	0.5	3.89E+05	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-47-3	Chromium	27.8	18.5	NR	1	pipelines	NR	18.5	0.2	NR	-	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-50-8	Copper	62.5	59.2	1.36E+05	1	pipelines	1.36E+05	22	1	1.36E+05	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7439-92-1	Lead	10.9	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-02-0	Nickel	39	19.1	2.89E+05	1	pipelines	2.89E+05	19.1	4	2.89E+05	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7782-49-2	Selenium	0.81	5	2.22E+03	1	pipelines	2.22E+03	0.78	1	2.22E+03	Scaled GWP SSL	No	No
100-H-51:3 & 100-H-51:6	100-H-51:6_Shallow Focused	7440-42-8	Boron	9.3	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-54	100-H-54_shallow	10045-97-3	Cesium-137	4.449	1465	NR	35	Sampling Maps (using PDF Measure)	NR	0.00105	0.1	NR	-	No	No
100-H-54	100-H-54_shallow	14683-23-9	Europium-152	2.046	--	NR	35	Sampling Maps (using PDF Measure)	NR	-	---	NR	-	No	No
100-H-54	100-H-54_shallow	14391-16-3	Europium-155	0.497	--	NR	35	Sampling Maps (using PDF Measure)	NR	-	---	NR	-	No	No
100-H-54	100-H-54_shallow	13981-16-3	Plutonium-238	0.119	--	NR	35	Sampling Maps (using PDF Measure)	NR	0.00000378	---	NR	-	No	No
100-H-54	100-H-54_shallow	15117-96-1	Uranium-235	0.14	0.5	NA	35	Sampling Maps (using PDF Measure)	NA	0.000109	---	NA	-	No	No
100-H-54	100-H-54_shallow	7440-42-8	Boron	1.45	320	8.59E+04	35	Sampling Maps (using PDF Measure)	2.45E+03	3.89	2	2.45E+03	Scaled GWP SSL	No	No
100-H-54	100-H-54_shallow	7440-43-9	Cadmium	2.26	0.81	2.96E+02	35	Sampling Maps (using PDF Measure)	8.47E+00	0.563	0.2	8.47E+00	Scaled GWP SSL	No	No
100-H-54	100-H-54_shallow	7440-47-3	Chromium	34.7	18.5	NR	35	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	No
100-H-54	100-H-54_shallow	7440-50-8	Copper	36.2	59.2	1.36E+05	35	Sampling Maps (using PDF Measure)	3.90E+03	22	1	3.90E+03	Scaled GWP SSL	No	No
100-H-54	100-H-54_shallow	7439-92-1	Lead	73.2	ly	NR	35	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-54	100-H-54_shallow	7439-98-7	Molybdenum	0.711	8	1.51E+04	35	Sampling Maps (using PDF Measure)	4.32E+02	0.47	2	4.32E+02	Scaled GWP SSL	No	No
100-H-54	100-H-54_shallow	7440-66-6	Zinc	336	480	3.89E+05	35	Sampling Maps (using PDF Measure)	1.11E+04	67.8	1	1.11E+04	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7440-39-3	Barium	392	200	3.89E+05	1	pipelines	3.89E+05	132	0.5	3.89E+05	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7440-42-8	Boron	69	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7440-50-8	Copper	29.8	59.2	1.36E+05	1	pipelines	1.36E+05	22	1	1.36E+05	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7439-92-1	Lead	84	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-56	100-H-56_Shallow	7439-97-6	Mercury	15.9	0.33	2.83E+03	1	pipelines	2.83E+03	0.0131	---	2.83E+03	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7439-98-7	Molybdenum	0.48	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7782-49-2	Selenium	1.55	5	2.22E+03	1	pipelines	2.22E+03	0.78	1	2.22E+03	Scaled GWP SSL	No	No
100-H-56	100-H-56_Shallow	7440-66-6	Zinc	70.9	480	3.89E+05	1	pipelines	3.89E+05	67.8	1	3.89E+05	Scaled GWP SSL	No	No
100-H-57	100-H-57_shallow	7440-39-3	Barium	237	200	3.89E+05	1	pipelines	3.89E+05	132	0.5	3.89E+05	Scaled GWP SSL	No	No
100-H-57	100-H-57_shallow	7440-42-8	Boron	33.6	320	8.59E+04	1	pipelines	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
100-H-57	100-H-57_shallow	7439-92-1	Lead	32.5	10.2	NR	1	pipelines	NR	10.2	0.5	NR	-	No	No
100-H-57	100-H-57_shallow	7439-97-6	Mercury	0.4	0.33	2.83E+03	1	pipelines	2.83E+03	0.0131	---	2.83E+03	Scaled GWP SSL	No	No
100-H-57	100-H-57_shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	14.3	1000	5.57E+03	1	pipelines	5.57E+03	-	---	5.57E+03	Scaled GWP SSL	No	No
100-H-57	100-H-57_shallow	7439-98-7	Molybdenum	0.28	8	1.51E+04	1	pipelines	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
100-H-59:1	100-H-59:1_Shallow	7440-42-8	Boron	2.7	320	8.59E+04	15.875	Sampling Maps (using PDF Measure)	5.41E+03	3.89	2	5.41E+03	Scaled GWP SSL	No	No
100-H-59:1	100-H-59:1_Shallow	7439-98-7	Molybdenum	0.33	8	1.51E+04	15.875	Sampling Maps (using PDF Measure)	9.53E+02	0.47	2	9.53E+02	Scaled GWP SSL	No	No
100-H-59:1	100-H-59:1_Shallow	7439-92-1	Lead	25.5	10.2	NR	15.875	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
100-H-59:2	100-H-59:2_Shallow	60-57-1	Dieldrin	0.00085	0.0033	1.47E+00	31.913	Sampling Maps (using PDF Measure)	4.59E-02	-	0.0033	4.59E-02	Scaled GWP SSL	No	No
100-H-59:2	100-H-59:2_Shallow	7440-42-8	Boron	3.7	320	8.59E+04	31.913	Sampling Maps (using PDF Measure)	2.69E+03	3.89	2	2.69E+03	Scaled GWP SSL	No	No
100-H-59:2	100-H-59:2_Shallow	7439-98-7	Molybdenum	0.56	8	1.51E+04	31.913	Sampling Maps (using PDF Measure)	4.74E+02	0.47	2	4.74E+02	Scaled GWP SSL	No	No
100-H-59:2	100-H-59:2_Shallow Focused	7440-42-8	Boron	1.5	320	8.59E+04	31.913	Sampling Maps (using PDF Measure)	2.69E+03	3.89	2	2.69E+03	Scaled GWP SSL	No	No
126-H-2	126-H-2 East and Pump Room Clearwell_Shallow	7439-92-1	Lead	59.7	10.2	NR	17.11	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
132-H-3	132-H-3_Shallow	10198-40-0	Cobalt-60	0.0461	13,900	NR	24.04	Sampling Maps (using PDF Measure)	NR	0.00000842	0.05	NR	-	No	No
132-H-3	132-H-3_Shallow	13981-37-8	Nickel-63	6.72	83	1.70E+06	24.04	Sampling Maps (using PDF Measure)	7.05E+04	-	---	7.05E+04	Scaled GWP SSL	No	No
132-H-3	132-H-3_Shallow	7440-42-8	Boron	0.99	320	8.59E+04	24.04	Sampling Maps (using PDF Measure)	3.57E+03	3.89	2	3.57E+03	Scaled GWP SSL	No	No
132-H-3	132-H-3_Shallow	7439-98-7	Molybdenum	0.35	8	1.51E+04	24.04	Sampling Maps (using PDF Measure)	6.29E+02	0.47	2	6.29E+02	Scaled GWP SSL	No	No
132-H-3	132-H-3_Shallow	10098-97-2	Strontium-90	1.76	27.6	1.57E+05	24.04	Sampling Maps (using PDF Measure)	6.51E+03	-	---	6.51E+03	Scaled GWP SSL	No	No
132-H-3	132-H-3_Shallow	10028-17-8	Tritium	0.0102	12.6	1.80E+04	24.04	Sampling Maps (using PDF Measure)	7.48E+02	-	---	7.48E+02	Scaled GWP SSL	No	No
132-H-3	132-H-3_Shallow	7440-47-3	Chromium	13.5	18.5	NR	24.04	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	No
132-H-3	132-H-3_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.3	1000	5.57E+03	24.04	Sampling Maps (using PDF Measure)	2.32E+02	-	---	2.32E+02	Scaled GWP SSL	No	No
600-381	600-381_Shallow	7440-42-8	Boron	2.4	320	8.59E+04	1	Assumed based on site	8.59E+04	3.89	2	8.59E+04	Scaled GWP SSL	No	No
600-381	600-381_Shallow	7439-98-7	Molybdenum	0.27	8	1.51E+04	1	Assumed based on site	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
600-381	600-381_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	17.3	1000	5.57E+03	1	Assumed based on site	5.57E+03	-	---	5.57E+03	Scaled GWP SSL	No	No

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
600-381	600-381_Shallow	94-75-7	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.013	7	NA	1	Assumed based on site	NA	-	---	NA	-	No	No
600-381	600-381_Shallow	56-55-3	Benzo(a)anthracene	0.0038	0.015	NR	1	Assumed based on site	NR	-	0.015	NR	-	No	No
600-381	600-381_Shallow	50-32-8	Benzo(a)pyrene	0.02	0.015	NR	1	Assumed based on site	NR	-	0.015	NR	-	No	No
600-381	600-381_Shallow	205-99-2	Benzo(b)fluoranthene	0.0064	0.015	NR	1	Assumed based on site	NR	-	0.015	NR	-	No	No
600-381	600-381_Shallow	191-24-2	Benzo(ghi)perylene	0.0099	48	NA	1	Assumed based on site	NA	-	0.03	NA	-	No	No
600-381	600-381_Shallow	218-01-9	Chrysene	0.014	0.12	NR	1	Assumed based on site	NR	-	0.1	NR	-	No	No
600-381	600-381_Shallow	84-74-2	Di-n-butylphthalate	0.052	160	2.26E+04	1	Assumed based on site	2.26E+04	-	0.33	2.26E+04	Scaled GWP SSL	No	No
600-381	600-381_Shallow	206-44-0	Fluoranthene	0.015	64	3.89E+05	1	Assumed based on site	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
600-381	600-381_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.025	0.33	NR	1	Assumed based on site	NR	-	0.03	NR	-	No	No
600-381	600-381_Shallow	85-01-8	Phenanthrene	0.034	240	NA	1	Assumed based on site	NA	-	0.05	NA	-	No	No
600-381	600-381_Shallow	129-00-0	Pyrene	0.019	48	3.89E+05	1	Assumed based on site	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	208-96-8	Acenaphthylene	0.195	96	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	7439-98-7	Molybdenum	0.326	8	1.51E+04	1.82	Sampling Maps (using PDF Measure)	8.31E+03	0.47	2	8.31E+03	Scaled GWP SSL	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	56-55-3	Benzo(a)anthracene	0.00103	0.015	NR	1.82	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.000926	0.015	NR	1.82	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.00216	48	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	206-44-0	Fluoranthene	0.00137	64	3.89E+05	1.82	Sampling Maps (using PDF Measure)	2.14E+05	-	0.05	2.14E+05	Scaled GWP SSL	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.00484	0.33	NR	1.82	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	129-00-0	Pyrene	0.00172	48	3.89E+05	1.82	Sampling Maps (using PDF Measure)	2.14E+05	-	0.05	2.14E+05	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-39-3	Barium	147	200	3.89E+05	1	Description of the site close 2 to 5 ft	3.89E+05	132	0.5	3.89E+05	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-43-9	Cadmium	10.8	0.81	2.96E+02	1	Description of the site close 2 to 5 ft	2.96E+02	0.563	0.2	2.96E+02	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-50-8	Copper	32.3	59.2	1.36E+05	1	Description of the site close 2 to 5 ft	1.36E+05	22	1	1.36E+05	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-92-1	Lead	181	10.2	NR	1	Description of the site close 2 to 5 ft	NR	10.2	0.5	NR	-	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-96-5	Manganese	1890	512	3.89E+05	1	Description of the site close 2 to 5 ft	3.89E+05	512	5	3.89E+05	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-97-6	Mercury	0.744	0.33	2.83E+03	1	Description of the site close 2 to 5 ft	2.83E+03	0.0131	---	2.83E+03	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-98-7	Molybdenum	0.426	8	1.51E+04	1	Description of the site close 2 to 5 ft	1.51E+04	0.47	2	1.51E+04	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-02-0	Nickel	63.3	19.1	2.89E+05	1	Description of the site close 2 to 5 ft	2.89E+05	19.1	4	2.89E+05	Scaled GWP SSL	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-66-6	Zinc	1670	480	3.89E+05	1	Description of the site close 2 to 5 ft	3.89E+05	67.8	1	3.89E+05	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7439-92-1	Lead	80.7	10.2	NR	4.38	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7440-42-8	Boron	3.42	320	8.59E+04	4.38	Sampling Maps (using PDF Measure)	1.96E+04	3.89	2	1.96E+04	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7439-98-7	Molybdenum	0.381	8	1.51E+04	4.38	Sampling Maps (using PDF Measure)	3.45E+03	0.47	2	3.45E+03	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	14808-79-8	Sulfate	359	25000	1.39E+05	4.38	Sampling Maps (using PDF Measure)	3.18E+04	-	5	3.18E+04	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7440-66-6	Zinc	108	480	3.89E+05	4.38	Sampling Maps (using PDF Measure)	8.88E+04	67.8	1	8.88E+04	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	57-12-5	Cyanide	0.202	20	4.30E+02	4.38	Sampling Maps (using PDF Measure)	9.82E+01	-	---	9.82E+01	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	NO3-N	Nitrogen in nitrate	14.4	1000	5.57E+03	4.38	Sampling Maps (using PDF Measure)	1.27E+03	-	0.75	1.27E+03	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	120-12-7	Anthracene	0.0617	240	3.89E+05	4.38	Sampling Maps (using PDF Measure)	8.88E+04	-	0.05	8.88E+04	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	56-55-3	Benzo(a)anthracene	0.072	0.015	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	50-32-8	Benzo(a)pyrene	0.076	0.015	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.0572	0.015	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No

Table 3. Comparison of EPCs from the 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Groundwater

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	90th Percentile Hanford Site Background (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does EPC Exceed Soil Screening Level Protective of Groundwater?	Does EPC Exceed Remedial Action Goal Protective of Groundwater?
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	191-24-2	Benzo(ghi)perylene	0.0499	48	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	207-08-9	Benzo(k)fluoranthene	0.0193	0.015	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.015	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	218-01-9	Chrysene	0.0725	0.12	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.1	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	--	Dibenz(a,h)anthracene	0.0388	0.03	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	206-44-0	Fluoranthene	0.122	64	3.89E+05	4.38	Sampling Maps (using PDF Measure)	8.88E+04	-	0.05	8.88E+04	Scaled GWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.0325	0.33	NR	4.38	Sampling Maps (using PDF Measure)	NR	-	0.03	NR	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	85-01-8	Phenanthrene	0.102	240	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	129-00-0	Pyrene	0.236	48	3.89E+05	4.38	Sampling Maps (using PDF Measure)	8.88E+04	-	0.05	8.88E+04	Scaled GWP SSL	No	No

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

2. ECF-HANFORD-11-0063. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

NR – the calculated soil screening level for the COPC is non-representative (ECF-HANFORD-12-0004), indicating no effective limit either because there was no simulated COPC breakthrough within 1000 years, or because the calculated soil concentration limit is higher than is physically possible to exist.

NA - Indicates that a drinking water standard was not available.

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-D-8	100-D-8 Shallow	14133-76-7	Technetium-99	0.472	0.92	NA	25.7	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-8	100-D-8 Shallow	10028-17-8	Tritium	0.0149	25.2	NA	25.7	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-8	100-D-8 Shallow	7440-36-0	Antimony	1.3	5	NA	25.7	Sampling Maps (using PDF Measure)	NA	0.13	0.6	NA	-	No	No
100-D-8	100-D-8 Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	4.4	2000	NA	25.7	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-14	100-D-14 Shallow	7782-49-2	Selenium	1.4	1	2.01E+01	12.17	Sampling Maps (using PDF Measure)	1.65E+00	0.78	1	1.65E+00	Scaled SWP SSL	No	Yes
100-D-14	100-D-14 Shallow	7782-49-2	Selenium	0.46	1	2.01E+01	12.17	Sampling Maps (using PDF Measure)	1.65E+00	0.78	1	1.65E+00	Scaled SWP SSL	No	No
100-D-14	100-D-14 Shallow	NO2-N	Nitrogen in Nitrite	0.46	200	NA	12.17	Sampling Maps (using PDF Measure)	NA	-	0.75	NA	-	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7782-49-2	Selenium	0.81	1	2.01E+01	90.99	Sampling Maps (using PDF Measure)	2.21E-01	0.78	1	1.00E+00	RDL	No	No
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7782-49-2	Selenium	1.2	1	2.01E+01	23.84	Sampling Maps (using PDF Measure)	8.42E-01	0.78	1	1.00E+00	RDL	Yes	Yes
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7782-49-2	Selenium	1.1	1	2.01E+01	47.137	Sampling Maps (using PDF Measure)	4.26E-01	0.78	1	1.00E+00	RDL	Yes	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0.14	2000	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	56-55-3	Benzo(a)anthracene	3.9	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	50-32-8	Benzo(a)pyrene	0.012	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	205-99-2	Benzo(b)fluoranthene	0.022	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	191-24-2	Benzo(ghi)perylene	0.025	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	207-08-9	Benzo(k)fluoranthene	0.016	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	218-01-9	Chrysene	0.01	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	84-66-2	Diethyl phthalate	0.016	4600	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	206-44-0	Fluoranthene	0.029	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.033	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	85-01-8	Phenanthrene	0.013	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	129-00-0	Pyrene	0.016	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.036	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	Yes
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12,100-D-108, 100-D-109_Shallow	11097-69-1	Aroclor-1254	0.0028	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-50:4	100-D-50:4_Shallow	10028-17-8	Tritium	0.15	25.2	NA	1	pipeline	NA	-	---	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	10045-97-3	Cesium-137	0.258	2930	NA	1	pipeline	NA	0.00105	---	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	50-32-8	Benzo(a)pyrene	0.15	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:4	100-D-50:4_Shallow	205-99-2	Benzo(b)fluoranthene	0.0072	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	207-08-9	Benzo(k)fluoranthene	0.02	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:4	100-D-50:4_Shallow	218-01-9	chrysene	0.0067	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	206-44-0	fluoranthene	0.023	18	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	85-01-8	Phenanthrene	0.099	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	129-00-0	Pyrene	0.14	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:4	100-D-50:4_Shallow	11096-82-5	Aroclor-1260	0.065	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-50:4	100-D-50:4_Shallow	7440-50-8	copper	0.012	22	4.03E+03	1	pipeline	4.03E+03	22	1	4.03E+03	Scaled SWP SSL	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	83-32-9	Acenaphthene	23.4	129	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	208-96-8	Acenaphthylene	9.4	129	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	120-12-7	Anthracene	0.22	1920	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	56-55-3	Benzo(a)anthracene	1,300,000	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	50-32-8	Benzo(a)pyrene	11,000	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	205-99-2	Benzo(b)fluoranthene	2,300	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	191-24-2	Benzo(ghi)perylene	3,500	192	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	207-08-9	Benzo(k)fluoranthene	470	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	218-01-9	chrysene	1,500	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	--	Dibenz(a,h)anthracene	9,100	0.03	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	206-44-0	fluoranthene	2.4	18	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	86-73-7	Fluorene	26,000	260	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	193-39-5	Indeno(1,2,3-cd)pyrene	10,000	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	91-20-3	Naphthalene	2,000	988	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	85-01-8	Phenanthrene	9.70	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	129-00-0	Pyrene	61,000	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 1	7439-97-6	Mercury	24,000	0.33	NR	1	pipeline	NR	0.0131	---	NR	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	7440-42-8	Boron	1.3	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	7439-98-7	Molybdenum	0.31	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	83-32-9	Acenaphthene	0.38	129	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	208-96-8	Acenaphthylene	0.06	129	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	120-12-7	Anthracene	1,100	1920	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	56-55-3	Benzo(a)anthracene	720	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	50-32-8	Benzo(a)pyrene	110	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	205-99-2	Benzo(b)fluoranthene	210	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	191-24-2	Benzo(ghi)perylene	22	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	207-08-9	Benzo(k)fluoranthene	39	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	218-01-9	chrysene	230	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	--	Dibenz(a,h)anthracene	0.18	0.03	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	206-44-0	fluoranthene	480	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	86-73-7	Fluorene	42	260	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	193-39-5	Indeno(1,2,3-cd)pyrene	8.4	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	91-20-3	Naphthalene	0.78	988	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	85-01-8	Phenanthrene	600	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	129-00-0	Pyrene	540	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep 2	11097-69-1	Aroclor-1254	0.020	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	7440-42-8	Boron	0.97	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	7439-98-7	Molybdenum	0.37	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	83-32-9	Acenaphthene	0.25	129	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	120-12-7	Anthracene	0.68	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	56-55-3	Benzo(a)anthracene	1.1	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	50-32-8	Benzo(a)pyrene	1.1	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	205-99-2	Benzo(b)fluoranthene	1.1	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	191-24-2	Benzo(ghi)perylene	0.64	192	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	207-08-9	Benzo(k)fluoranthene	0.49	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	218-01-9	chrysene	1	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	--	Dibenz(a,h)anthracene	0.21	0.03	NA	1	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	206-44-0	fluoranthene	2.4	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	86-73-7	Fluorene	0.38	260	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.67	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	85-01-8	Phenanthrene	1.7	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	129-00-0	Pyrene	2.4	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	11097-69-1	Aroclor-1254	0.013	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-50:6_126-DR-1	100-D-50:6_126-DR-1_Deep Focused	11096-82-5	Aroclor-1260	0.0048	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-50:7	100-D-50:7_Shallow Focused	7440-66-6	zinc	2.6	67.8	NR	1	pipeline	NR	67.8	1	NR	-	No	No
100-D-50:7	100-D-50:7_Shallow Focused	72-54-8	4,4'-DDD (Dichlorodiphenyldichloroethane)	406	0.0033	NA	1	pipeline	NA	-	0.0033	NA	-	No	Yes
100-D-50:7	100-D-50:7_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0095	0.0033	NA	1	pipeline	NA	-	0.0033	NA	-	No	Yes
100-D-50:7	100-D-50:7_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.018	0.0033	NR	1	pipeline	NR	-	0.0033	NR	-	No	Yes
100-D-50:7	100-D-50:7_Shallow Focused	56-55-3	Benzo(a)anthracene	0.58	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:8	100-D-50:8_Shallow	7440-42-8	Boron	1.2	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-50:8	100-D-50:8_Shallow	7439-98-7	Molybdenum	0.38	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	50-32-8	Benzo(a)pyrene	0.015	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	205-99-2	Benzo(b)fluoranthene	0.024	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-50:9	100-D-50:9_Service Area 2_Shallow	191-24-2	Benzo(ghi)perylene	0.066	192	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	207-08-9	Benzo(k)fluoranthene	0.04	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-50:9	100-D-50:9_Service Area 2_Shallow	218-01-9	chrysene	0.019	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.068	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-50:9	100-D-50:9_Service Area 2_Shallow	83-32-9	Acenaphthene	0.039	129	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	208-96-8	Acenaphthylene	0.19	129	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	120-12-7	Anthracene	0.013	1920	NA	104.34	pipeline	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	56-55-3	Benzo(a)anthracene	0.39	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	50-32-8	Benzo(a)pyrene	0.66	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	205-99-2	Benzo(b)fluoranthene	0.023	0.015	NA	104.34	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	191-24-2	Benzo(ghi)perylene	0.5	192	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	207-08-9	Benzo(k)fluoranthene	0.32	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	218-01-9	chrysene	0.18	0.1	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	--	Dibenz(a,h)anthracene	0.56	0.03	NA	104.34	pipeline	NA	-	0.03	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	206-44-0	fluoranthene	0.092	18	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	86-73-7	Fluorene	1.2	260	NA	104.34	pipeline	NA	-	0.03	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.25	0.33	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	85-01-8	Phenanthrene	0.3	1920	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	129-00-0	Pyrene	1.2	192	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	11097-69-1	Aroclor-1254	1.3	0.017	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0.0075	2000	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-42-8	Boron	1.7	--	NA	104.34	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7439-98-7	Molybdenum	0.51	--	NA	104.34	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-62-2	Vanadium	113	--	NA	104.34	Sampling Maps (using PDF Measure)	NA	85.1	2.5	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	56-55-3	Benzo(a)anthracene	0.011	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	50-32-8	Benzo(a)pyrene	0.016	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.017	0.015	NA	104.34	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.012	0.015	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	218-01-9	chrysene	0.018	0.1	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	206-44-0	fluoranthene	0.034	18	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.014	0.33	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	129-00-0	Pyrene	0.04	192	NA	104.34	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-62, 100-D-77 and 100-D-	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	11096-82-5	Aroclor-1260	0.0034	0.017	NR	104.34	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-65	100-D-65_Shallow	83-32-9	Acenaphthene	0.00801	129	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Shallow	208-96-8	Acenaphthylene	0.000266	129	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Shallow	56-55-3	Benzo(a)anthracene	0.0035	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Shallow	50-32-8	Benzo(a)pyrene	0.00586	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Shallow	205-99-2	Benzo(b)fluoranthene	0.00514	0.015	NA	24.22	pipeline	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Shallow	191-24-2	Benzo(ghi)perylene	0.00329	192	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-65	100-D-65_Shallow	207-08-9	Benzo(k)fluoranthene	0.00301	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Shallow	218-01-9	chrysene	0.00768	0.1	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Shallow	86-73-7	Fluorene	0.002	260	NA	24.22	pipeline	NA	-	0.03	NA	-	No	No
100-D-65	100-D-65_Shallow	206-44-0	fluoranthene	0.00957	18	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-65	100-D-65_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.00823	0.33	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-65	100-D-65_Shallow	91-20-3	Naphthalene	0.00516	988	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Shallow	85-01-8	Phenanthrene	0.00541	1920	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-65	100-D-65_Shallow	129-00-0	Pyrene	0.00487	192	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-65	100-D-65_Sediment	10045-97-3	Cesium-137	0.0444	2930	NA	24.22	pipeline	NA	0.00105	---	NA	-	No	No
100-D-65	100-D-65_Sediment	7440-42-8	Boron	3.6	--	NA	24.22	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-65	100-D-65_Sediment	7440-47-3	Chromium	44.2	18.5	NR	24.22	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	Yes
100-D-65	100-D-65_Sediment	7440-50-8	Copper	30.2	22	4.03E+03	24.22	pipeline	1.66E+02	22	1	1.66E+02	Scaled SWP SSL	No	Yes
100-D-65	100-D-65_Sediment	7439-92-1	Lead	11	10.2	NR	24.22	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-65	100-D-65_Sediment	7439-96-5	Manganese	639	512	NA	24.22	Sampling Maps (using PDF Measure)	NA	512	5	NA	-	No	Yes
100-D-65	100-D-65_Sediment	7439-97-6	Mercury	0.011	0.33	NR	24.22	pipeline	NR	0.0131	---	NR	-	No	No
100-D-65	100-D-65_Sediment	7439-98-7	Molybdenum	0.8	--	NA	24.22	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-65	100-D-65_Sediment	7440-02-0	Nickel	21.9	27.4	NR	24.22	Sampling Maps (using PDF Measure)	NR	19.1	4	NR	-	No	No
100-D-65	100-D-65_Sediment	7440-66-6	Zinc	96.1	67.8	NR	24.22	pipeline	NR	67.8	1	NR	-	No	Yes
100-D-65	100-D-65_Sediment	83-32-9	Acenaphthene	0.23	129	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Sediment	56-55-3	Benzo(a)anthracene	0.0059	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Sediment	50-32-8	Benzo(a)pyrene	0.0095	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Sediment	205-99-2	Benzo(b)fluoranthene	0.0091	0.015	NA	24.22	pipeline	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Sediment	207-08-9	Benzo(k)fluoranthene	0.0089	0.015	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-65	100-D-65_Sediment	218-01-9	chrysene	0.009	0.1	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-65	100-D-65_Sediment	86-73-7	Fluorene	0.0085	260	NA	24.22	pipeline	NA	-	0.03	NA	-	No	No

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-D-65	100-D-65_Sediment	131-11-3	Dimethyl phthalate	0.36	14400	NA	24.22	pipeline	NA	-	0.33	NA	-	No	No
100-D-65	100-D-65_Sediment	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00033	0.0033	NA	24.22	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-D-66	100-D-66_Shallow	10028-17-8	Tritium	3.43	25.2	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-66	100-D-66_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	22.3	2000	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-66	100-D-66_Shallow	83-32-9	Acenaphthene	0.019	129	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-66	100-D-66_Shallow	208-96-8	Acenaphthylene	0.0445	129	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-66	100-D-66_Shallow	120-12-7	Anthracene	0.0108	1920	NA	23.76	pipeline	NA	-	0.05	NA	-	No	No
100-D-66	100-D-66_Shallow	56-55-3	Benzo(a)anthracene	0.0284	0.015	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-66	100-D-66_Shallow	50-32-8	Benzo(a)pyrene	0.0174	0.015	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-66	100-D-66_Shallow	205-99-2	Benzo(b)fluoranthene	0.0154	0.015	NA	23.76	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-66	100-D-66_Shallow	191-24-2	Benzo(ghi)perylene	0.0127	192	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-66	100-D-66_Shallow	207-08-9	Benzo(k)fluoranthene	0.0289	0.015	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-66	100-D-66_Shallow	218-01-9	chrysene	0.0289	0.1	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-66	100-D-66_Shallow	--	Dibenz(a,h)anthracene	0.00674	0.03	NA	23.76	pipeline	NA	-	0.03	NA	-	No	No
100-D-66	100-D-66_Shallow	206-44-0	fluoranthene	0.0387	18	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-66	100-D-66_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.00969	0.33	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-66	100-D-66_Shallow	91-20-3	Naphthalene	0.0293	988	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-66	100-D-66_Shallow	85-01-8	Phenanthrene	0.0469	1920	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-66	100-D-66_Shallow	129-00-0	Pyrene	0.0328	192	NA	23.76	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-69	100-D-69_Shallow&SPA	7440-42-8	Boron	1.5	--	NA	20.94	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-69	100-D-69_Shallow&SPA	7439-98-7	Molybdenum	2.8	--	NA	20.94	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7440-42-8	Boron	1.1	--	NA	58.07	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7439-98-7	Molybdenum	0.31	--	NA	58.07	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	75-09-2	Methylene Chloride	0.0031	0.94	NA	58.07	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-75:1	100-D-75:1_Shallow	7440-42-8	Boron	1.3	--	NA	129.6	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-75:1	100-D-75:1_Shallow	85-01-8	Phenanthrene	0.019	1920	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:1	100-D-75:1_Shallow	129-00-0	Pyrene	0.023	192	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:1	100-D-75:1_Shallow	11096-82-5	Aroclor-1260	0.046	0.017	NR	129.6	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-75:2	100-D-75:2_Shallow	7440-42-8	Boron	3.23	--	NA	129.6	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	7440-43-9	Cadmium	0.991	0.81	1.34E+00	129.6	Sampling Maps (using PDF Measure)	1.04E-02	0.563	0.2	5.63E-01	BG	Yes	Yes
100-D-75:2	100-D-75:2_Shallow	7440-50-8	Copper	24	22	4.03E+03	129.6	pipeline	3.11E+01	22	1	3.11E+01	Scaled SWP SSL	No	Yes
100-D-75:2	100-D-75:2_Shallow	7439-92-1	Lead	89.2	10.2	NR	129.6	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-75:2	100-D-75:2_Shallow	7439-98-7	Molybdenum	1.12	--	NA	129.6	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	7440-66-6	Zinc	140	67.8	NR	129.6	pipeline	NR	67.8	1	NR	-	No	Yes
100-D-75:2	100-D-75:2_Shallow	56-55-3	Benzo(a)anthracene	0.00598	0.015	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	50-32-8	Benzo(a)pyrene	0.00484	0.015	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	205-99-2	Benzo(b)fluoranthene	0.0169	0.015	NA	129.6	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-75:2	100-D-75:2_Shallow	191-24-2	Benzo(ghi)perylene	0.00483	192	NA	129.6	Sampling Maps (using PDF Measure) -	NA	-	0.03	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	207-08-9	Benzo(k)fluoranthene	0.00886	0.015	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	218-01-9	Chrysene	0.02	0.1	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	--	Dibenz(a,h)anthracene	0.000812	0.03	NA	129.6	pipeline	NA	-	0.03	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	206-44-0	Fluoranthene	0.0379	18	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	129-00-0	pyrene	0.0336	192	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	85-01-8	Phenanthrene	0.039	1920	NA	129.6	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-75:2	100-D-75:2_Shallow	11096-82-5	Aroclor-1260	0.0262	0.017	NR	129.6	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-78	100-D-78 Shallow	NO2-N	Nitrogen in Nitrite	0.82	200	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.75	NA	-	No	No
100-D-81	100-D-81 Shallow	50-32-8	Benzo(a)pyrene	0.0098	0.015	NA	43.57	pipeline	NA	-	0.015	NA	-	No	No
100-D-81	100-D-81 Shallow	205-99-2	Benzo(b)fluoranthene	0.006	0.015	NA	43.57	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-81	100-D-81 Shallow	218-01-9	Chrysene	0.0057	0.1	NA	43.57	Multiple Areas; however considered one meas	NA	-	0.1	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	56-55-3	Benzo(a)anthracene	0.078	0.015	NA	1	Multiple Areas; however considered one meas	NA	-	0.015	NA	-	No	Yes
100-D-83:3	100-D-83:3_Shallow	50-32-8	Benzo(a)pyrene	0.071	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-83:3	100-D-83:3_Shallow	205-99-2	Benzo(b)fluoranthene	0.094	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-83:3	100-D-83:3_Shallow	191-24-2	Benzo(ghi)perylene	0.042	192	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	218-01-9	Chrysene	0.09	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	131-11-3	Dimethyl phthalate	0.038	14400	NA	1	pipeline	NA	-	0.33	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	206-44-0	Fluoranthene	0.14	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.097	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	85-01-8	Phenanthrene	0.07	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-83:3	100-D-83:3_Shallow	129-00-0	Pyrene	0.046	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-83:3	100-D-83:5-West_Shallow	7439-92-1	Lead	44.3	10.2	NR	1	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-83:5	100-D-83:5-West_Shallow	7439-97-6	Mercury	14.5	0.33	NR	1	pipeline	NR	0.0131	---	NR	-	No	Yes
100-D-83:5	100-D-83:5-West_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	15.6	2000	NA	1	pipeline	NA	-	---	NA	-	No	No
100-D-83:5	100-D-83:5_Shallow Focused	7439-98-7	Molybdenum	0.37	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-83:5	100-D-83:5_Shallow Focused	7440-62-2	Vanadium	97.9	--	NA	1	pipeline	NA	85.1	2.5	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	7440-42-8	Boron	1.4	--	NA	1	pipeline	NA	3.89	2	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	7439-98-7	Molybdenum	0.55		NA	1	pipeline	NA	0.47	2	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	7782-49-2	Selenium	0.88	1	2.01E+01	1	pipeline	2.01E+01	0.78	1	2.01E+01	Scaled SWP SSL	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	56-55-3	Benzo(a)anthracene	0.027	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	205-99-2	Benzo(b)fluoranthene	0.033	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 3_Shallow	218-01-9	Chrysene	0.035	0.1	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	206-44-0	Fluoranthene	0.052	18	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	85-01-8	Phenanthrene	0.017	1920	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 3_Shallow	129-00-0	Pyrene	0.027	192	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-39-3	Barium	146	400	NA	1	pipeline	NA	132	0.5	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-42-8	Boron	10.4	--	NA	1	pipeline	NA	3.89	2	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7439-98-7	Molybdenum	0.38		NA	1	pipeline	NA	0.47	2	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	56-55-3	Benzo(a)anthracene	0.026	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-32-8	Benzo(a)pyrene	0.022	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.028	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.019	192	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.0076	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	218-01-9	Chrysene	0.025	0.1	NA	1	pipeline	NA	-	0.1	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	206-44-0	Fluoranthene	0.047	18	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.015	0.33	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	85-01-8	Phenanthrene	0.02	1920	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	129-00-0	Pyrene	0.046	192	NA	1	pipeline	NA	-	0.05	NA	-	No	No
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0024		NA	1	pipeline	NA	-	0.0033	NA	-	No	Yes
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00085		NR	1	pipeline	NR	-	0.0033	NR	-	No	Yes
100-D-85:2	100-D-85:2_Shallow	11097-69-1	Aroclor-1254	0.088	0.017	NR	42.14	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-86:1	100-D-86:1_Shallow	SR-RAD	Total beta radiostrontium	0.088	55.2	NA	52.29	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	83-32-9	Acenaphthene	0.014	129	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	56-55-3	Benzo(a)anthracene	0.042	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Shallow	50-32-8	Benzo(a)pyrene	0.032	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Shallow	205-99-2	Benzo(b)fluoranthene	0.024	0.015	NA	52.29	pipeline	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Shallow	191-24-2	Benzo(ghi)perylene	0.014	192	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	207-08-9	Benzo(k)fluoranthene	0.011	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	218-01-9	chrysene	0.046	0.1	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	206-44-0	fluoranthene	0.093	18	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	86-73-7	fluorene	0.014	260	NA	52.29	pipeline	NA	-	0.03	NA	-	No	No

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-D-86:1	100-D-86:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.016	0.33	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	85-01-8	Phenanthrene	0.076	1920	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	129-00-0	Pyrene	0.11	192	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Shallow	11097-69-1	Aroclor-1254	0.084	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-86:1	100-D-86:1_Shallow	11096-82-5	Aroclor-1260	0.013	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-86:1	100-D-86:1_Deep	SR-RAD	Total beta radiostrontium	0.352	55.2	NA	52.29	Sampling Maps (using PDF Measure)	NA	0.000178	---	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	7440-62-2	Vanadium	85.6	--	NA	52.29	Sampling Maps (using PDF Measure)	NA	85.1	2.5	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	56-55-3	Benzo(a)anthracene	0.024	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Deep	50-32-8	Benzo(a)pyrene	0.04	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Deep	205-99-2	Benzo(b)fluoranthene	0.024	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-86:1	100-D-86:1_Deep	191-24-2	Benzo(ghi)perylene	0.03	192	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	207-08-9	Benzo(k)fluoranthene	0.0086	0.015	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	218-01-9	chrysene	0.028	0.1	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	206-44-0	fluoranthene	0.06	18	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	193-39-5	Indeno(1,2,3-cd)pyrene	0.019	0.33	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	85-01-8	Phenanthrene	0.037	1920	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	129-00-0	Pyrene	0.074	192	NA	52.29	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:1	100-D-86:1_Deep	11097-69-1	Aroclor-1254	0.042	0.017	NR	52.29	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-86:3	100-D-86:3_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0024	0.0033	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-D-86:3	100-D-86:3_Shallow	56-55-3	Benzo(a)anthracene	0.006	0.015	NA	42.03	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	50-32-8	Benzo(a)pyrene	0.015	0.015	NA	42.03	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	205-99-2	Benzo(b)fluoranthene	0.012	0.015	NA	42.03	pipeline	NA	-	0.015	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	207-08-9	Benzo(k)fluoranthene	0.0041	0.015	NA	42.03	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	218-01-9	chrysene	0.015	0.1	NA	42.03	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	60-57-1	Dieldrin	0.0011	0.0033	2.77E+00	42.03	Sampling Maps (using PDF Measure)	6.59E-02	-	0.0033	6.59E-02	Scaled SWP SSL	No	No
100-D-86:3	100-D-86:3_Shallow	206-44-0	fluoranthene	0.017	18	NA	42.03	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-86:3	100-D-86:3_Shallow	1024-57-3	Heptachlor epoxide	0.00077	0.002	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.00165	NR	-	No	No
100-D-86:3	100-D-86:3_Shallow	72-43-5	Methoxychlor	0.0027	1.67	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-D-86:3	100-D-86:3_Shallow	11096-82-5	Aroclor-1260	0.265	0.017	NR	42.03	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-96:1	100-D-96:1_Shallow	7440-42-8	Boron	4.5	--	NA	1	pipeline	NA	3.89	2	NA	-	No	No
100-D-96:1	100-D-96:1_Shallow	7439-98-7	Molybdenum	0.373	--	NA	1	pipeline	NA	0.47	2	NA	-	No	No
100-D-96:1	100-D-96:1_Shallow	7439-92-1	Lead	11.7	10.2	NR	1	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-96:1	100-D-96:1_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	161	1000	NA	1	pipeline	NA	-	---	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	7439-92-1	Lead	64.6	10.2	NR	10	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-96:2	100-D-96:2_Shallow&SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	15.9	2000	NA	10	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	56-55-3	Benzo(a)anthracene	0.026	0.015	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-96:2	100-D-96:2_Shallow&SPA	50-32-8	Benzo(a)pyrene	0.0095	0.015	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	205-99-2	Benzo(b)fluoranthene	0.0099	0.015	NA	10	pipeline	NA	-	0.015	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	218-01-9	chrysene	0.02	0.1	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	206-44-0	fluoranthene	0.075	18	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	85-01-8	Phenanthrene	0.047	1920	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	129-00-0	Pyrene	0.075	192	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-96:2	100-D-96:2_Shallow&SPA	67-66-3	Chloroform	0.075	--	NA	10	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow Focused	7439-98-7	Molybdenum	0.37	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-97	100-D-97_Shallow Focused	67-66-3	Chloroform	0.0039	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow Focused	75-09-2	Methylene chloride	0.0056	0.94	NA	1.23	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow Focused	108-88-3	Toluene	0.0018	1360	NA	1.23	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow	7440-42-8	Boron	1.2	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-97	100-D-97_Shallow	7439-98-7	Molybdenum	0.52	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-97	100-D-97_Shallow	67-64-1	Acetone	0.031	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	-	0.02	NA	-	No	No
100-D-97	100-D-97_Shallow	67-66-3	Chloroform	0.0033	--	NA	1.23	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow	56-55-3	Benzo(a)anthracene	0.012	0.015	NA	1.23	500 gallon fuel tank	NA	-	0.015	NA	-	No	No
100-D-97	100-D-97_Shallow	--	Dibenz(a,h)anthracene	0.013	0.03	NA	1.23	pipeline	NA	-	0.03	NA	-	No	No
100-D-97	100-D-97_Shallow	11097-69-1	Aroclor-1254	0.033	0.017	NR	1.23	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-D-97	100-D-97_Shallow	78-93-3	2-Butanone	0.022	--	NA	1.23	pipeline	NA	-	0.01	NA	-	No	No
100-D-97	100-D-97_Shallow	591-78-6	2-Hexanone	0.019	--	NA	1.23	500 gallon fuel tank	NA	-	0.02	NA	-	No	No
100-D-97	100-D-97_Shallow	108-10-1	4-methyl-2-pentanone	0.019	--	NA	1.23	500 gallon fuel tank	NA	-	0.01	NA	-	No	No
100-D-97	100-D-97_Shallow	108-90-7	Chlorobenzene	0.00071	--	NA	1.23	500 gallon fuel tank	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow	75-09-2	Methylene chloride	0.0069	0.94	NA	1.23	500 gallon fuel tank	NA	-	0.005	NA	-	No	No
100-D-97	100-D-97_Shallow	108-88-3	Toluene	0.0014	1360	NA	1.23	500 gallon fuel tank	NA	-	0.005	NA	-	No	No
100-D-98:2	100-D-98:2_Shallow	7440-42-8	Boron	5.17	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-98:2	100-D-98:2_Shallow	7439-98-7	Molybdenum	0.796	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-99	100-D-99_Shallow	7440-42-8	Boron	1.5	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-99	100-D-99_Shallow	7439-98-7	Molybdenum	0.49	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-99	100-D-99_Shallow	7782-49-2	Selenium	0.94	1	2.01E+01	1	Sampling Maps (using PDF Measure)	2.01E+01	0.78	1	2.01E+01	Scaled SWP SSL	No	No
100-D-99	100-D-99_Shallow	7440-66-6	Zinc	105	67.8	NR	1	Sampling Maps (using PDF Measure)	NR	67.8	1	NR	-	No	Yes
100-D-99	100-D-99_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	33.4	2000	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-99	100-D-99_Shallow	14808-79-8	Sulfate	612	--	NA	1	Sampling Maps (using PDF Measure)	NA	-	5	NA	-	No	No
100-D-99	100-D-99_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00087	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-D-99	100-D-99_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.002	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-D-99	100-D-99_Shallow	56-55-3	Benzo(a)anthracene	0.014	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-99	100-D-99_Shallow	50-32-8	Benzo(a)pyrene	0.021	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-99	100-D-99_Shallow	205-99-2	Benzo(b)fluoranthene	0.02	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-D-99	100-D-99_Shallow	191-24-2	Benzo(ghi)perylene	0.021	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-99	100-D-99_Shallow	207-08-9	Benzo(k)fluoranthene	0.0066	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-99	100-D-99_Shallow	67-66-3	Chloroform	0.0041	--	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-99	100-D-99_Shallow	218-01-9	chrysene	0.014	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-99	100-D-99_Shallow	206-44-0	fluoranthene	0.017	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-99	100-D-99_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.014	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-D-99	100-D-99_Shallow	108-88-3	Toluene	0.00077	1360	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-100	100-D-100_Shallow 1	7440-42-8	Boron	1.3	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-100	100-D-100_Shallow 1	7439-98-7	Molybdenum	0.32	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-100	100-D-100_Shallow 2	7440-42-8	Boron	0.99	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-100	100-D-100_Shallow 2	7439-98-7	Molybdenum	0.32	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-100	100-D-100_Shallow 4	7439-98-7	Molybdenum	0.25	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-100	100-D-100_Shallow 5	7439-98-7	Molybdenum	0.29	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-100	100-D-100_Shallow 6	7439-98-7	Molybdenum	0.33	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-100	100-D-100_Shallow 8	7440-42-8	Boron	1.3	--	NA	24.06	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-101	100-D-101_Shallow	7440-42-8	Boron	5.37	--	NA	29.4	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-101	100-D-101_Shallow	7439-98-7	Molybdenum	0.441	--	NA	29.4	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-101	100-D-101_Shallow	7439-92-1	Lead	71.4	10.2	NR	29.4	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-101	100-D-101_Shallow	7440-66-6	Zinc	192	67.8	NR	29.4	pipeline	NR	67.8	1	NR	-	No	Yes
100-D-101	100-D-101_Shallow	117-81-7	Bis(2-ethylhexyl) phthalate	0.201	0.36	NA	29.4	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-D-101	100-D-101_Shallow	218-01-9	chrysene	0.201	0.1	NA	29.4	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-D-101	100-D-101_Shallow	206-44-0	fluoranthene	3.55	18	NA	29.4	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-101	100-D-101_Shallow	129-00-0	Pyrene	5.08	192	NA	29.4	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-D-101	100-D-101_Shallow	67-64-1	Acetone	0.0075	--	NA	29.4	Sampling Maps (using PDF Measure)	NA	-	0.02	NA	-	No	No
100-D-102	100-D-102_Shallow	10045-97-3	Cesium-137	0.081	2930	NA	78.5	pipeline	NA	0.00105	---	NA	-	No	No
100-D-102	100-D-102_Shallow	SR-RAD	Total beta radiostrontium	0.438	55.2	NA	78.5	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
100-D-102	100-D-102_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	5.99	2000	NA	78.5	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-D-103	100-D-103_shallow	7439-98-7	molybdenum	0.27	--	NA	4	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-103	100-D-103_shallow	117-81-7	Bis(2-ethylhexyl) phthalate	0.071	0.36	NA	4	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-D-103	100-D-103_shallow	78-93-3	2-Butanone	0.0065	--	NA	4	Sampling Maps (using PDF Measure)	NA	-	0.01	NA	-	No	No
100-D-103	100-D-103_shallow	108-88-3	Toluene	0.004	1360	NA	4	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7440-42-8	Boron	1.35	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7439-98-7	Molybdenum	0.323	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7440-42-8	Boron	0.88	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7439-98-7	Molybdenum	0.27	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-42-8	Boron	1.25	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-43-9	Cadmium	0.884	0.81	1.34E+00	1	Sampling Maps (using PDF Measure)	1.34E+00	0.563	0.2	1.34E+00	Scaled SWP SSL	No	Yes
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-62-2	Vanadium	111	--	NA	1	pipelines	NA	85.1	2.5	NA	-	No	No
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-42-8	Boron	1.14	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-43-9	Cadmium	0.874	0.81	1.34E+00	1	Sampling Maps (using PDF Measure)	1.34E+00	0.563	0.2	1.34E+00	Scaled SWP SSL	No	Yes
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-66-6	Zinc	67.8	67.8	NR	1	pipeline	NR	67.8	1	NR	-	No	No
100-D-105	100-D-105 Test Pit 8 (Segment 11)_Shallow	7440-42-8	Boron	3.03	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 9 (Segment 12)_Shallow	7440-42-8	Boron	1.1	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 10 (Segment 14)_Shallow	7440-62-2	Vanadium	87.6	--	NA	1	pipelines	NA	85.1	2.5	NA	-	No	No
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7440-42-8	Boron	2.3	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7439-98-7	Molybdenum	0.26	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 12 (Segment 4)_shallow	7440-42-8	Boron	1.55	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 13 (Segment 5)	7440-42-8	Boron	1.030	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-105	100-D-105 Test Pit 13 (Segment 5)	7440-43-9	Cadmium	0.238	0.81	1.34E+00	1	Sampling Maps (using PDF Measure)	1.34E+00	0.563	0.2	1.34E+00	Scaled SWP SSL	No	No
100-D-105	100-D-105 Test Pit 13 (Segment 5)	7440-66-6	Zinc	77	67.8	NR	1	Sampling Maps (using PDF Measure)	NR	67.8	1	NR	-	No	Yes
100-D-106	100-D-106_Shallow	7440-42-8	Boron	2	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-106	100-D-106_Shallow	7439-98-7	Molybdenum	0.58	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-106	100-D-106_Shallow	7782-49-2	Selenium	0.81	1	2.01E+01	1	Sampling Maps (using PDF Measure)	2.01E+01	0.78	1	2.01E+01	Scaled SWP SSL	No	No
100-D-106	100-D-106_Shallow	56-55-3	Benzo(a)anthracene	0.012	0.015	NA	1	pipelines	NA	-	0.015	NA	-	No	No
100-D-106	100-D-106_Shallow	50-32-8	Benzo(a)pyrene	0.0076	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-106	100-D-106_Shallow	218-01-9	chrysene	0.01	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-106	100-D-106_Shallow	206-44-0	fluoranthene	0.019	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-106	100-D-106_Shallow	129-00-0	Pyrene	0.015	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-106	100-D-106_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00051	0.0033	NA	1	pipelines	NA	-	0.0033	NA	-	No	No
100-D-106	100-D-106_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0014	0.0033	NR	1	pipelines	NR	-	0.0033	NR	-	No	No
100-D-106	100-D-106_Shallow Focused	7440-42-8	Boron	1.8	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
100-D-106	100-D-106_Shallow Focused	7439-98-7	Molybdenum	0.55	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
100-D-106	100-D-106_Shallow Focused	7782-49-2	Selenium	1.2	1	2.01E+01	1	Sampling Maps (using PDF Measure)	2.01E+01	0.78	1	2.01E+01	Scaled SWP SSL	No	Yes
100-D-106	100-D-106_Shallow Focused	7440-66-6	Zinc	147	67.8	NR	1	pipeline	NR	67.8	1	NR	-	No	Yes
100-D-106	100-D-106_Shallow Focused	86-73-7	Fluorene	0.05	260	NA	1	pipeline	NA	-	0.03	NA	-	No	No
100-D-106	100-D-106_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.015	0.0033	NR	1	pipelines	NR	-	0.0033	NR	-	No	Yes
100-D-106	100-D-106_Shallow Focused	57-74-9	Chlordane	0.0077	0.0165	NR	1	500 gallon fuel tank	NR	-	0.0165	NR	-	No	No
100-D-107	100-D-107_Shallow	7440-39-3	Barium	2380	400	NA	33.4	Sampling Maps (using PDF Measure)	NA	132	0.5	NA	-	No	Yes
100-D-107	100-D-107_Shallow	7440-41-7	Beryllium	2.05	1.51	NA	33.4	Sampling Maps (using PDF Measure)	NA	1.51	0.2	NA	-	No	Yes
100-D-107	100-D-107_Shallow	7440-50-8	Copper	25.5	22	4.03E+03	33.4	pipeline	1.21E+02	22	1	1.21E+02	Scaled SWP SSL	No	Yes
100-D-107	100-D-107_Shallow	7439-92-1	Lead	64.7	10.2	NR	33.4	pipeline	NR	10.2	0.5	NR	-	No	Yes
100-D-107	100-D-107_Shallow	7439-96-5	Manganese	531	512	NA	33.4	Sampling Maps (using PDF Measure)	NA	512	5	NA	-	No	Yes
100-D-107	100-D-107_Shallow	56-55-3	Benzo(a)anthracene	0.00149	0.015	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-107	100-D-107_Shallow	50-32-8	Benzo(a)pyrene	0.00102	0.015	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-D-107	100-D-107_Shallow	205-99-2	Benzo(b)fluoranthene	0.0021	0.015	NA	33.4	pipeline	NA	-	0.015	NA	-	No	No
100-D-107	100-D-107_Shallow	218-01-9	Chrysene	0.000921	0.1	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-D-107	100-D-107_Shallow	--	Dibenz(a,h)anthracene	0.00672	0.03	NA	33.4	pipeline	NA	-	0.03	NA	-	No	No
100-D-107	100-D-107_Shallow	206-44-0	Fluoranthene	0.00579	18	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-107	100-D-107_Shallow	85-01-8	Phenanthrene	0.00959	1920	NA	33.4	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-D-107	100-D-107_Shallow	11096-82-5	Aroclor-1260	0.00146	0.017	NR	33.4	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
116-DR-3	116-DR-3_Shallow	10045-97-3	Cesium-137	0.0548	2930	NA	17.5	pipeline	NA	0.00105	---	NA	-	No	No
116-DR-3	116-DR-3_Shallow	10028-17-8	Tritium	0.471	25.2	NA	17.5	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
116-DR-3	116-DR-3_Shallow	7439-92-1	Lead	17.7	10.2	NR	17.5	pipeline	NR	10.2	0.5	NR	-	No	Yes
116-DR-3	116-DR-3_Shallow	7782-49-2	Selenium	1.4		2.01E+01	17.5	pipeline	1.27E+01	0.78	1	1.27E+01	Scaled SWP SSL	No	Yes
116-DR-3	116-DR-3_Shallow	11096-82-5	Aroclor-1260	0.00146	0.017	NR	17.5	pipeline	NR	-	0.0165	NR	-	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	10028-17-8	Tritium	0.071	25.2	NA	51.82	pipeline	NA	-	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	205-99-2	Benzo(b)fluoranthene	0.0093	0.015	NA	51.82	pipeline	NA	-	0.015	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	207-08-9	Benzo(k)fluoranthene	0.0039	0.015	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	206-44-0	Fluoranthene	0.017	18	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	129-00-0	Pyrene	0.015	192	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10198-40-0	Cobalt-60	0.0329	27800	NA	51.82	Sampling Maps (using PDF Measure)	NA	0.00000842	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10028-17-8	Tritium	0.127	25.2	NA	51.82	Average of 4 sites within 118-D-2:1	NA	-	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	120-12-7	Anthracene	0.0064	1920	NA	51.82	pipeline	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11097-69-1	Aroclor-1254	0.0095	0.017	NR	51.82	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11096-82-5	Aroclor-1260	0.0069	0.017	NR	51.82	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	56-55-3	Benzo(a)anthracene	0.0064	0.015	NA	51.82	Average of 4 sites within 118-D-2:1	NA	-	0.015	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	218-01-9	Chrysene	0.017	0.1	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	206-44-0	Fluoranthene	0.038	18	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	91-20-3	Naphthalene	0.02	988	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	85-01-8	Phenanthrene	0.024	1920	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	129-00-0	Pyrene	0.026	192	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0069	--	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.013	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10045-97-3	Cesium-137	1.31	2930	NA	51.82	pipeline	NA	0.00105	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	SR-RAD	Total beta radiostrontium	1.67	55.2	NA	51.82	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10028-17-8	Tritium	1.56	25.2	NA	51.82	Average of 4 sites within 118-D-2:1	NA	-	---	NA	-	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	11097-69-1	Aroclor-1254	0.0056	0.017	NR	51.82	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0056	--	NA	51.82	Sampling Maps (using PDF Measure)	NA	-	0.013	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10045-97-3	Cesium-137	1.61	2930	NA	51.82	pipeline	NA	0.00105	---	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10098-97-2	Total beta radiostrontium	2.01	55.2	NA	51.82	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	10028-17-8	Tritium	11.2	25.2	NA	51.82	Average of 4 sites within 118-D-2:1	NA	-	---	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7440-42-8	Boron	1.2	--	NA	51.82	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7439-98-7	Molybdenum	0.48	--	NA	51.82	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
118-D-2:1	118-D-2:1_Shallow Focused	7782-49-2	Selenium	0.84	1	2.01E+01	51.82	Sampling Maps (using PDF Measure)	3.87E-01	0.78	1	1.00E+00	RDL	No	No
118-D-2:1	118-D-2:1_Shallow Focused	94-82-6	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.013	--	NA	51.82	pipeline	NA	-	0.013	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	10028-17-8	Tritium	0.0152	25.2	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-92-1	Lead	24.4	10.2	NR	14.8	pipeline	NR	10.2	0.5	NR	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-97-6	Mercury	0.77	0.33	NR	14.8	pipeline	NR	0.0131	---	NR	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	120-12-7	Anthracene	0.01	1920	NA	14.8	pipeline	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	11096-82-5	Aroclor-1260	0.031	0.017	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	56-55-3	Benzo(a)anthracene	0.04	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	50-32-8	Benzo(a)pyrene	0.086	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	205-99-2	Benzo(b)fluoranthene	0.032	0.015	NA	14.8	pipeline	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	191-24-2	Benzo(ghi)perylene	0.036	192	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	207-08-9	Benzo(k)fluoranthene	0.046	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area A_Shallow	218-01-9	Chrysene	0.037	0.1	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	206-44-0	Fluoranthene	0.061	18	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.05	0.33	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	85-01-8	Phenanthrene	0.093	1920	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area A_Shallow	129-00-0	Pyrene	0.19	192	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	14133-76-7	Technetium-99	0.363	0.92	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	10028-17-8	Tritium	0.0287	25.2	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	120-12-7	Anthracene	0.05	1920	NA	14.8	pipeline	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	11096-82-5	Aroclor-1260	0.0055	0.017	NR	14.8	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	56-55-3	Benzo(a)anthracene	0.054	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	50-32-8	Benzo(a)pyrene	0.042	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	205-99-2	Benzo(b)fluoranthene	0.052	0.015	NA	14.8	pipeline	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	191-24-2	Benzo(ghi)perylene	0.026	192	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	207-08-9	Benzo(k)fluoranthene	0.027	0.015	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-2:2	118-D-2:2: Sample Area B_Shallow	218-01-9	Chrysene	0.057	0.1	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	206-44-0	Fluoranthene	0.068	18	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.033	0.33	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	85-01-8	Phenanthrene	0.029	1920	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-2:2	118-D-2:2: Sample Area B_Shallow	129-00-0	Pyrene	0.058	192	NA	14.8	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	10028-17-8	Tritium	0.0276	25.2	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.2	2000	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	56-55-3	Benzo(a)anthracene	0.023	0.015	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	50-32-8	Benzo(a)pyrene	0.029	0.015	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	205-99-2	Benzo(b)fluoranthene	0.03	0.015	NA	30.287	pipeline	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	191-24-2	Benzo(ghi)perylene	0.02	192	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	207-08-9	Benzo(k)fluoranthene	0.019	0.015	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 1	218-01-9	Chrysene	0.027	0.1	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	206-44-0	Fluoranthene	0.035	18	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	0.33	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	129-00-0	Pyrene	0.043	192	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 1	75-09-2	Methylene chloride	0.0022	0.94	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	13981-37-8	Nickel-63	6.29	166	NA	30.287	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	10028-17-8	Tritium	0.0264	25.2	NA	37.83	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0.78	2000	**NA**	37.83	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 1	67-64-1	Acetone	0.02	--	**NA**	37.83	Sampling Maps (using PDF Measure)	NA	-	0.02	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	13981-37-8	Nickel-63	7.72	166	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	SR-RAD	Total beta radiostrontium	0.384	55.2	NA	19.435	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	67-64-1	Acetone	0.0088	--	**NA**	19.435	Sampling Maps (using PDF Measure)	NA	-	0.02	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	21	2000	**NA**	19.435	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	56-55-3	Benzo(a)anthracene	0.013	0.015	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	50-32-8	Benzo(a)pyrene	0.046	0.015	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	205-99-2	Benzo(b)fluoranthene	0.049	0.015	NA	19.435	pipeline	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	191-24-2	Benzo(ghi)perylene	0.022	192	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
118-D-3:1	118-D-3:1_Shallow Zone 2	207-08-9	Benzo(k)fluoranthene	0.021	0.015	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
118-D-3:1	118-D-3:1_Shallow Zone 2	218-01-9	Chrysene	0.032	0.1	NA	19.435	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10045-97-3	Cesium-137	1.59	2930	NA	25.51	pipeline	NA	0.00105	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10198-40-0	Cobalt-60	0.159	27800	NA	25.51	Sampling Maps (using PDF Measure)	NA	0.00000842	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	13981-37-8	Nickel-63	515	166	NA	25.51	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	Yes
118-D-3:1	118-D-3:1_Deep Zone 2	SR-RAD	Total beta radiostrontium	0.225	55.2	NA	25.51	waste site consists of 16 pipeline segments	NA	0.000178	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	10028-17-8	Tritium	0.0568	25.2	NA	25.51	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 2	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	4.3	2000	**NA**	25.51	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	10028-17-8	Tritium	0.0808	25.2	NA	19.78	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.2	2000	**NA**	19.78	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:1	118-D-3:1_Deep Zone 3	67-64-1	Acetone	0.0063	--	**NA**	19.78	Sampling Maps (using PDF Measure)	NA	-	0.02	NA	-	No	No
118-D-3:2	118-D-3:2_Shallow Zone	10028-17-8	Tritium	0.0627	25.2	NA	19.21	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
118-D-3:2	118-D-3:2_Shallow Zone	75-09-2	Methylene chloride	0.0014	0.94	NA	19.21	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
118-D-3:2	118-D-3:2_Shallow Focused	7440-42-8	Boron	1.7	--	NA	19.21	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
118-D-3:2	118-D-3:2_Shallow Focused	131-11-3	Dimethyl phthalate	0.55	14400	NA	19.21	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	7440-42-8	Boron	2.1	--	NA	1	Sampling Maps (using PDF Measure)	NA	3.89	2	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	7439-98-7	Molybdenum	0.53	--	NA	1	Sampling Maps (using PDF Measure)	NA	0.47	2	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	7782-49-2	Selenium	0.85	1	2.01E+01	1	Sampling Maps (using PDF Measure)	2.01E+01	0.78	1	2.01E+01	Scaled SWP SSL	No	No
1607-D2:5	1607-D2:5_Shallow	56-55-3	Benzo(a)anthracene	0.0055	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	50-32-8	Benzo(a)pyrene	0.0086	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.011	0.015	NA	1	pipeline	NA	-	0.015	NA	-	No	No
1607-D2:5	1607-D2:5_Shallow	218-01-9	Chrysene	0.0062	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

Table 4. Comparison of EPCs from 100-D Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?

2. ECF-HANFORD-11-0063. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

NR – the calculated soil screening level for the COPC is non-representative (ECF-HANFORD-12-0004), indicating no effective limit either because there was no simulated COPC breakthrough within 1000 years, or because the calculated soil concentration limit is higher than is physically possible to exist.

NA - Indicates that a surface water standard or criterion was not available.

Table 5. Comparison of EPCs from 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWp[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7439-92-1	Lead	17.3	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0011	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0029	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	95-95-4	2,4,5-Trichlorophenol	0.016	--	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11097-69-1	Aroclor-1254	0.024	0.017	5.91E+02	1	Sampling Maps (using PDF Measure)	5.91E+02	-	0.0165	5.91E+02	Scaled SWP SSL	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11096-82-5	Aroclor-1260	0.017	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	83-32-9	Acenaphthene	0.016	129	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	56-55-3	Benzo(a)anthracene	0.032	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-32-8	Benzo(a)pyrene	0.047	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	205-99-2	Benzo(b)fluoranthene	0.037	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	191-24-2	Benzo(ghi)perylene	0.043	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	207-08-9	Benzo(k)fluoranthene	0.013	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	218-01-9	Chrysene	0.029	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	206-44-0	Fluoranthene	0.078	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	86-73-7	Fluorene	0.012	260	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.025	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	85-01-8	Phenanthrene	0.07	1,920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	129-00-0	Pyrene	0.082	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	541-73-1	1,3-Dichlorobenzene	0.014	80	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	106-46-7	1,4-Dichlorobenzene	0.014	0.972	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.005	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	88-06-2	2,4,6-Trichlorophenol	0.013	0.42	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	91-58-7	2-Chloronaphthalene	0.018	206	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	13981-37-8	Nickel-63	8.99	166	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7440-47-3	Chromium	21.2	18.5	NR	1	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-92-1	Lead	21.1	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-97-6	Mercury	4.9	0.33	1.70E+01	1	Sampling Maps (using PDF Measure)	1.70E+01	0.0131	---	1.70E+01	Scaled SWP SSL	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00026	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00065	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11097-69-1	Aroclor-1254	0.01	0.017	5.91E+02	1	Sampling Maps (using PDF Measure)	5.91E+02	-	0.0165	5.91E+02	Scaled SWP SSL	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11096-82-5	Aroclor-1260	0.034	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	83-32-9	Acenaphthene	0.013	129	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	56-55-3	Benzo(a)anthracene	0.024	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-32-8	Benzo(a)pyrene	0.027	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.026	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.008	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.01	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	218-01-9	Chrysene	0.021	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	131-11-3	Dimethyl phthalate	0.043	14400	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	206-44-0	Fluoranthene	0.059	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	86-73-7	Fluorene	0.012	260	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	85-01-8	Phenanthrene	0.048	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	129-00-0	Pyrene	0.059	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-50-8	Copper	24.9	22	1.92E+03	1	Sampling Maps (using PDF Measure)	1.92E+03	22	1	1.92E+03	Scaled SWP SSL	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-92-1	Lead	27.2	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-97-6	Mercury	4.85	0.33	1.70E+01	1	Sampling Maps (using PDF Measure)	1.70E+01	0.0131	---	1.70E+01	Scaled SWP SSL	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11097-69-1	Aroclor-1254	0.0393	0.017	5.91E+02	1	Sampling Maps (using PDF Measure)	5.91E+02	-	0.0165	5.91E+02	Scaled SWP SSL	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11096-82-5	Aroclor-1260	0.0115	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-47-3	Chromium	19	18.5	NR	1	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7782-49-2	Selenium	1.4	1	2.22E+02	1	Sampling Maps (using PDF Measure)	2.22E+02	0.78	1	2.22E+02	Scaled SWP SSL	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00037	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	131-11-3	Dimethyl phthalate	0.095	14400	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	7439-92-1	Lead	35.9	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:4	100-H-28:4_Shallow Focused	11097-69-1	Aroclor-1254	0.0071	0.017	5.91E+02	1	Sampling Maps (using PDF Measure)	5.91E+02	-	0.0165	5.91E+02	Scaled SWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	11096-82-5	Aroclor-1260	0.27	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-H-28:4	100-H-28:4_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0046	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	Yes
100-H-28:4	100-H-28:4_Shallow Focused	72-43-5	Methoxychlor	0.0011	1.67	1.81E+02	1	Sampling Maps (using PDF Measure)	1.81E+02	-	0.0165	1.81E+02	Scaled SWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow Focused	131-11-3	Dimethyl phthalate	0.056	14400	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow Focused	129-00-0	Pyrene	0.035	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow	7439-92-1	Lead	37.3	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:4	100-H-28:4_Shallow	7782-49-2	Selenium	0.87	1	2.22E+02	1	Sampling Maps (using PDF Measure)	2.22E+02	0.78	1	2.22E+02	Scaled SWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	11097-69-1	Aroclor-1254	0.0054	0.017	5.91E+02	1	Sampling Maps (using PDF Measure)	5.91E+02	-	0.0165	5.91E+02	Scaled SWP SSL	No	No
100-H-28:4	100-H-28:4_Shallow	11096-82-5	Aroclor-1260	0.061	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-H-28:4	100-H-28:4_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0011	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-H-28:4	100-H-28:4_Shallow	60-57-1	Dieldrin	0.00092	0.0033	5.09E-01	1	Sampling Maps (using PDF Measure)	5.09E-01	-	0.0033	5.09E-01	Scaled SWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7439-92-1	Lead	24	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7782-49-2	Selenium	0.781	1	2.22E+02	1	Sampling Maps (using PDF Measure)	2.22E+02	0.78	1	2.22E+02	Scaled SWP SSL	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	11096-82-5	Aroclor-1260	0.00877	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00435	0.0033	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.000447	0.0033	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	83-32-9	Acenaphthene	0.022	129	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	120-12-7	Anthracene	0.0197	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	56-55-3	Benzo(a)anthracene	0.0534	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-32-8	Benzo(a)pyrene	0.0472	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.0518	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	191-24-2	Benzo(ghi)perylene	0.0987	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	207-08-9	Benzo(k)fluoranthene	0.62	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	218-01-9	Chrysene	0.187	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	--	Dibenz(a,h)anthracene	0.018	0.03	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	206-44-0	Fluoranthene	0.073	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No

Table 5. Comparison of EPCs from 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	86-73-7	Fluorene	0.019	260	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.026	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	85-01-8	Phenanthrene	0.12	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	129-00-0	Pyrene	0.331	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	7440-47-3	Chromium	20.9	18.5	NR	1	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	Yes
100-H-28:7	100-H-28:7_Shallow	7439-92-1	Lead	13.8	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:7	100-H-28:7_Shallow	50-32-8	Benzo(a)pyrene	0.02	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:7	100-H-28:7_Shallow	205-99-2	Benzo(b)fluoranthene	0.0075	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	207-08-9	Benzo(k)fluoranthene	0.027	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:7	100-H-28:7_Shallow	218-01-9	Chrysene	0.0063	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	206-44-0	Fluoranthene	0.048	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.017	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	85-01-8	Phenanthrene	0.038	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:7	100-H-28:7_Shallow	129-00-0	Pyrene	0.097	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	7439-92-1	Lead	12	10.2	NR	65.1367	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.005	0.0033	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00068	0.0033	NR	65.1367	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	56-55-3	Benzo(a)anthracene	0.016	0.015	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	50-32-8	Benzo(a)pyrene	0.026	0.015	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	205-99-2	Benzo(b)fluoranthene	0.028	0.015	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	191-24-2	Benzo(ghi)perylene	0.025	192	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	207-08-9	Benzo(k)fluoranthene	0.011	0.015	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	218-01-9	Chrysene	0.023	0.1	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	206-44-0	Fluoranthene	0.033	18	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.021	0.33	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	85-01-8	Phenanthrene	0.016	1920	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-42 Excav2_Shallow	129-00-0	Pyrene	0.034	192	NA	65.1367	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-43	100-H-43_Shallow	7439-92-1	Lead	55.4	10.2	NR	35.46	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-43	100-H-43_Shallow	7782-49-2	Selenium	0.98	1	2.22E+02	35.46	Sampling Maps (using PDF Measure)	6.25E+00	0.78	1	6.25E+00	Scaled SWP SSL	No	No
100-H-43	100-H-43_Shallow	83-32-9	Acenaphthene	0.014	129	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-43	100-H-43_Shallow	56-55-3	Benzo(a)anthracene	0.082	0.015	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-43	100-H-43_Shallow	50-32-8	Benzo(a)pyrene	0.081	0.015	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-43	100-H-43_Shallow	205-99-2	Benzo(b)fluoranthene	0.077	0.015	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-43	100-H-43_Shallow	191-24-2	Benzo(ghi)perylene	0.043	192	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-43	100-H-43_Shallow	207-08-9	Benzo(k)fluoranthene	0.041	0.015	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-43	100-H-43_Shallow	218-01-9	Chrysene	0.09	0.1	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-43	100-H-43_Shallow	--	Dibenz(a,h)anthracene	0.02	0.03	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-43	100-H-43_Shallow	206-44-0	Fluoranthene	0.069	18	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-43	100-H-43_Shallow	86-73-7	Fluorene	0.01	260	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-43	100-H-43_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.076	0.33	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-43	100-H-43_Shallow	85-01-8	Phenanthrene	0.054	1920	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-43	100-H-43_Shallow	129-00-0	Pyrene	0.099	192	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-43	100-H-43_Shallow	11097-69-1	Aroclor-1254	0.003	0.017	5.91E+02	35.46	Sampling Maps (using PDF Measure)	1.67E+01	-	0.0165	1.67E+01	Scaled SWP SSL	No	No
100-H-43	100-H-43_Shallow	60-57-1	Dieldrin	0.00076	0.0033	5.09E-01	35.46	Sampling Maps (using PDF Measure)	1.44E-02	-	0.0033	1.44E-02	Scaled SWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	7439-92-1	Lead	37.7	10.2	NR	35.46	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-43	100-H-43_Shallow Focused	7782-49-2	Selenium	0.81	1	2.22E+02	35.46	Sampling Maps (using PDF Measure)	6.25E+00	0.78	1	6.25E+00	Scaled SWP SSL	No	No
100-H-43	100-H-43_Shallow Focused	56-55-3	Benzo(a)anthracene	0.0042	0.015	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-43	100-H-43_Shallow Focused	218-01-9	Chrysene	0.006	0.1	NA	35.46	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-43	100-H-43_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0025	0.0033	NR	35.46	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-43	100-H-43_Shallow Focused	60-57-1	Dieldrin	0.0076	0.0033	5.09E-01	35.46	Sampling Maps (using PDF Measure)	1.44E-02	-	0.0033	1.44E-02	Scaled SWP SSL	No	Yes
100-H-43	100-H-43_Shallow Focused	72-20-8	Endrin	0.00053	0.039	2.32E-01	35.46	Sampling Maps (using PDF Measure)	6.55E-03	-	0.0033	6.55E-03	Scaled SWP SSL	No	No
100-H-46	100-H-46_Shallow_DU1	7440-50-8	Copper	24	22	1.92E+03	14.53	Sampling Maps (using PDF Measure)	1.32E+02	22	1	1.32E+02	Scaled SWP SSL	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7439-92-1	Lead	36.1	10.2	NR	19.83	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	83-32-9	Acenaphthene	0.26	129	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	208-96-8	Acenaphthylene	0.049	129	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	120-12-7	Anthracene	0.29	1,920	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	56-55-3	Benzo(a)anthracene	180	0.015	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	50-32-8	Benzo(a)pyrene	14	0.015	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	205-99-2	Benzo(b)fluoranthene	6.9	0.015	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	191-24-2	Benzo(ghi)perylene	4.3	192	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	207-08-9	Benzo(k)fluoranthene	2.8	0.015	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	218-01-9	Chrysene	10	0.1	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	--	Dibenz(a,h)anthracene	0.13	0.03	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	206-44-0	Fluoranthene	54	18	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	86-73-7	Fluorene	0.19	260	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	3.2	0.33	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	85-01-8	Phenanthrene	51	1920	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	129-00-0	Pyrene	31	192	NA	19.83	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11097-69-1	Aroclor-1254	0.23	0.017	5.91E+02	19.83	Sampling Maps (using PDF Measure)	2.98E+01	-	0.0165	2.98E+01	Scaled SWP SSL	No	Yes
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11096-82-5	Aroclor-1260	0.033	0.017	NR	19.83	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	7439-92-1	Lead	27.5	10.2	NR	11.73	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	7440-50-8	Copper	23.1	22	1.92E+03	11.73	Sampling Maps (using PDF Measure)	1.64E+02	22	1	1.64E+02	Scaled SWP SSL	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	208-96-8	Acenaphthylene	0.082	129	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	56-55-3	Benzo(a)anthracene	0.16	0.015	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	50-32-8	Benzo(a)pyrene	0.12	0.015	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.13	0.015	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.14	192	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	207-08-9	Benzo(k)fluoranthene	0.068	0.015	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	218-01-9	Chrysene	0.15	0.1	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	206-44-0	Fluoranthene	0.31	18	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	86-73-7	Fluorene	0.021	260	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.067	0.33	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No

Table 5. Comparison of EPCs from 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg-m/kg or pCi-m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
100-H-49:1	100-H-49:1_Shallow Focused	91-20-3	Naphthalene	0.013	988	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	85-01-8	Phenanthrene	0.45	1920	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	129-00-0	Pyrene	0.28	192	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-49:1	100-H-49:1_Shallow Focused	11096-82-5	Aroclor-1260	0.035	0.017	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.004	0.0033	NA	11.73	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	Yes
100-H-49:1	100-H-49:1_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0023	0.0033	NR	11.73	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow	7439-92-1	Lead	81.3	10.2	NR	15.32	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-51:1	100-H-51:1_Shallow	83-32-9	Acenaphthene	0.02	129	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	56-55-3	Benzo(a)anthracene	0.12	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-51:1	100-H-51:1_Shallow	50-32-8	Benzo(a)pyrene	0.093	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-51:1	100-H-51:1_Shallow	205-99-2	Benzo(b)fluoranthene	0.092	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
100-H-51:1	100-H-51:1_Shallow	191-24-2	Benzo(ghi)perylene	0.063	192	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	207-08-9	Benzo(k)fluoranthene	0.014	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	218-01-9	Chrysene	0.12	0.1	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	Yes
100-H-51:1	100-H-51:1_Shallow	206-44-0	Fluoranthene	0.14	18	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	86-73-7	Fluorene	0.0087	260	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.038	0.33	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	91-20-3	Naphthalene	0.016	988	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	85-01-8	Phenanthrene	0.035	1920	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	129-00-0	Pyrene	0.14	192	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0018	0.0033	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.0033	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0023	0	NR	15.32	Sampling Maps (using PDF Measure)	NR	-	0.0033	NR	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	7439-92-1	Lead	14.7	10.2	NR	15.32	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-51:1	100-H-51:1_Shallow focused	50-32-8	Benzo(a)pyrene	0.013	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	205-99-2	Benzo(b)fluoranthene	0.0059	0.015	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	218-01-9	Chrysene	0.0076	0.1	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	206-44-0	Fluoranthene	0.016	18	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	85-01-8	Phenanthrene	0.015	1920	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:1	100-H-51:1_Shallow focused	129-00-0	Pyrene	0.019	192	NA	15.32	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
100-H-51:2	100-H-51:2_Shallow	11096-82-5	Aroclor-1260	0.013	0.017	NR	1	Sampling Maps (using PDF Measure)	NR	-	0.0165	NR	-	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-39-3	Barium	211	400	NA	1	Sampling Maps (using PDF Measure)	NA	132	0.5	NA	-	No	No
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-47-3	Chromium	27.8	18.5	NR	1	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	Yes
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-50-8	Copper	62.5	22	1.92E+03	1	Sampling Maps (using PDF Measure)	1.92E+03	22	1	1.92E+03	Scaled SWP SSL	No	Yes
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7439-92-1	Lead	10.9	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-02-0	Nickel	39	27.4	1.50E+05	1	Sampling Maps (using PDF Measure)	1.50E+05	19.1	4	1.50E+05	Scaled SWP SSL	No	Yes
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7782-49-2	Selenium	0.81	1	2.22E+02	1	Sampling Maps (using PDF Measure)	2.22E+02	0.78	1	2.22E+02	Scaled SWP SSL	No	No
100-H-56	100-H-56_Shallow	7440-39-3	Barium	392	400	NA	1	Sampling Maps (using PDF Measure)	NA	132	0.5	NA	-	No	No
100-H-56	100-H-56_Shallow	7440-50-8	Copper	29.8	22	1.92E+03	1	Sampling Maps (using PDF Measure)	1.92E+03	22	1	1.92E+03	Scaled SWP SSL	No	Yes
100-H-56	100-H-56_Shallow	7439-92-1	Lead	84	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-56	100-H-56_Shallow	7439-97-6	Mercury	15.9	0.33	1.70E+01	1	Sampling Maps (using PDF Measure)	1.70E+01	0.0131	---	1.70E+01	Scaled SWP SSL	No	Yes
100-H-56	100-H-56_Shallow	7782-49-2	Selenium	1.55	1	2.22E+02	1	Sampling Maps (using PDF Measure)	2.22E+02	0.78	1	2.22E+02	Scaled SWP SSL	No	Yes
100-H-56	100-H-56_Shallow	7440-66-6	Zinc	70.9	67.8	2.25E+05	1	Sampling Maps (using PDF Measure)	2.25E+05	67.8	1	2.25E+05	Scaled SWP SSL	No	Yes
100-H-57	100-H-57_shallow	7440-39-3	Barium	237	400	NA	1	Sampling Maps (using PDF Measure)	NA	132	0.5	NA	-	No	No
100-H-57	100-H-57_shallow	7439-92-1	Lead	32.5	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-57	100-H-57_shallow	7439-97-6	Mercury	0.4	0.33	1.70E+01	1	Sampling Maps (using PDF Measure)	1.70E+01	0.0131	---	1.70E+01	Scaled SWP SSL	No	Yes
100-H-57	100-H-57_shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	14.3	2000	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
100-H-59:1	100-H-59:1_Shallow	7439-92-1	Lead	25.5	10.2	NR	15.875	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
100-H-59:2	100-H-59:2_Shallow	60-57-1	Dieldrin	0.00085	0.0033	5.09E-01	31.913	Sampling Maps (using PDF Measure)	1.60E-02	-	0.0033	1.60E-02	Scaled SWP SSL	No	No
126-H-2_Pump	126-H-2 East and Pump Room Clearwell_Shallow	7439-92-1	Lead	59.7	10.2	NR	17.11	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
132-H-3	132-H-3_Shallow	10198-40-0	Cobalt-60	0.0461	27800	NA	24.04	Sampling Maps (using PDF Measure)	NA	0.00000842	---	NA	-	No	No
132-H-3	132-H-3_Shallow	13981-37-8	Nickel-63	6.72	166	NA	24.04	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
132-H-3	132-H-3_Shallow	10098-97-2	Strontium-90	1.76	55.2	NA	24.04	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
132-H-3	132-H-3_Shallow	10028-17-8	Tritium	0.0102	25.2	NA	24.04	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
132-H-3	132-H-3_Shallow	7440-47-3	Chromium	13.5	18.5	NR	24.04	Sampling Maps (using PDF Measure)	NR	18.5	0.2	NR	-	No	No
132-H-3	132-H-3_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	1.3	2000	NA	24.04	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
600-381	600-381_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	17.3	2000	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
600-381	600-381_Shallow	94-75-7	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.013	--	NA	1	Sampling Maps (using PDF Measure)	NA	-	---	NA	-	No	No
600-381	600-381_Shallow	56-55-3	Benzo(a)anthracene	0.0038	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
600-381	600-381_Shallow	50-32-8	Benzo(a)pyrene	0.02	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
600-381	600-381_Shallow	205-99-2	Benzo(b)fluoranthene	0.0064	0.015	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
600-381	600-381_Shallow	191-24-2	Benzo(ghi)perylene	0.0099	192	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-381	600-381_Shallow	218-01-9	Chrysene	0.014	0.1	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
600-381	600-381_Shallow	84-74-2	Di-n-butylphthalate	0.052	540	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.33	NA	-	No	No
600-381	600-381_Shallow	206-44-0	Fluoranthene	0.015	18	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-381	600-381_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.025	0.33	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-381	600-381_Shallow	85-01-8	Phenanthrene	0.034	1920	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-381	600-381_Shallow	129-00-0	Pyrene	0.019	129	NA	1	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	208-96-8	Acenaphthylene	0.195	129	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	56-55-3	Benzo(a)anthracene	0.00103	0.015	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	205-99-2	Benzo(b)fluoranthene	0.000926	0.015	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	191-24-2	Benzo(ghi)perylene	0.00216	192	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	206-44-0	Fluoranthene	0.00137	18	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	0.00484	0.33	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-382	600-382:1, 600-382:2,600-382:3, 600-382:4, 600-382:5_Shallow Focused	129-00-0	Pyrene	0.00172	129	NA	1.82	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No

Table 5. Comparison of EPCs from 100-H Source OU Waste Site Decision Units to Soil Screening Levels Protective of Surface Water

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Does EPC Exceed Remedial Action Goal Protective of the River?
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-39-3	Barium	147	400	NA	1	Sampling Maps (using PDF Measure)	NA	132	0.5	NA	-	No	No
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-43-9	Cadmium	10.8	0.81	1.48E+01	1	Sampling Maps (using PDF Measure)	1.48E+01	0.563	0.2	1.48E+01	Scaled SWP SSL	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-50-8	Copper	32.3	22	1.92E+03	1	Sampling Maps (using PDF Measure)	1.92E+03	22	1	1.92E+03	Scaled SWP SSL	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-92-1	Lead	181	10.2	NR	1	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-96-5	Manganese	1890	512	NA	1	Sampling Maps (using PDF Measure)	NA	512	5	NA	-	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7439-97-6	Mercury	0.744	0.33	1.70E+01	1	Sampling Maps (using PDF Measure)	1.70E+01	0.0131	---	1.70E+01	Scaled SWP SSL	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-02-0	Nickel	63.3	27.4	1.50E+05	1	Sampling Maps (using PDF Measure)	1.50E+05	19.1	4	1.50E+05	Scaled SWP SSL	No	Yes
600-383	600-383:1, 600-383:2, 600-383:3,600-383:4, 600-383:5, 600-383:6, 600-383:7, 600-383:8, 600-383:9, 600-383:10_Shallow Focused	7440-66-6	Zinc	1670	67.8	2.25E+05	1	Sampling Maps (using PDF Measure)	2.25E+05	67.8	1	2.25E+05	Scaled SWP SSL	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7439-92-1	Lead	80.7	10.2	NR	4.38	Sampling Maps (using PDF Measure)	NR	10.2	0.5	NR	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	7440-66-6	Zinc	108	67.8	2.25E+05	4.38	Sampling Maps (using PDF Measure)	5.13E+04	67.8	1	5.13E+04	Scaled SWP SSL	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	57-12-5	Cyanide	0.202	1.04	4.66E+02	4.38	Sampling Maps (using PDF Measure)	1.06E+02	-	---	1.06E+02	Scaled SWP SSL	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	NO3-N	Nitrogen in nitrate	14.4	2000	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.75	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	120-12-7	Anthracene	0.0617	1920	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	56-55-3	Benzo(a)anthracene	0.072	0.015	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	50-32-8	Benzo(a)pyrene	0.076	0.015	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	205-99-2	Benzo(b)fluoranthene	0.0572	0.015	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	191-24-2	Benzo(ghi)perylene	0.0499	192	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	207-08-9	Benzo(k)fluoranthene	0.0193	0.015	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.015	NA	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	218-01-9	Chrysene	0.0725	0.1	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.1	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	--	Dibenz(a,h)anthracene	0.0388	0.03	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	Yes
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	206-44-0	Fluoranthene	0.122	18	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	0.0325	0.33	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.03	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	85-01-8	Phenanthrene	0.102	1920	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No
600-384	600-384:1, 600-384:2, 600-384:3, 600-384:4, 600-384:5_Shallow	129-00-0	Pyrene	0.236	192	NA	4.38	Sampling Maps (using PDF Measure)	NA	-	0.05	NA	-	No	No

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

2. ECF-HANFORD-11-0063. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

NR – the calculated soil screening level for the COPC is non-representative (ECF-HANFORD-12-0004), indicating no effective limit either because there was no simulated COPC breakthrough within 1000 years, or because the calculated soil concentration limit is higher than is physically possible to exist.

NA - Indicates that a surface water standard or criterion was not available.

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Table 6. Evaluation of 100-D Source OU Waste Site Data with EPCs Greater Than Groundwater Protection Soil Screening Levels

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Groundwater Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Groundwater[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled GWP Soil Screening Level (mg/kg or pCi/g)	Hanford Site Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final GWP Soil Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Groundwater	Does Result Exceed Soil Screening Level Protective of Groundwater?	Comment
100-D-50:6	100-D-50:6_Deep 1	120-12-7	Anthracene	1,300,000	240	3.89E+05	1	pipeline	3.89E+05	-	0.05	3.89E+05	Scaled GWP SSL	Yes	--(a)
100-D-50:6	100-D-50:6_Deep 1	86-73-7	Fluorene	10,000	64	2.02E+03	1	pipeline	2.02E+03	-	0.03	2.02E+03	Scaled GWP SSL	Yes	--(b)
100-D-66	100-D-66_Shallow	NO3-N	Nitrate	22.3	1,000	5.04E+02	23.76	Sampling Maps (using	2.12E+01	-	---	2.12E+01	Scaled GWP SSL	Yes	--(c)
100-D-75:2	100-D-75:2_Shallow	7440-43-9	Cadmium	0.991	0.81	2.69E+01	129.6	Sampling Maps (using	2.07E-01	0.563	0.2	5.63E-01	BG	Yes	--(d)
100-D-101	100-D-101_Shallow	14808-79-8	Sulfate	2,100	25,000	1.26E+04	29.4	Sampling Maps (using	4.29E+02	-	5	4.29E+02	Scaled GWP SSL	Yes	--(e)

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

2. ECF-HANFORD-11-0063. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

a. Exceeded GWP SSL but eliminated through further evaluation. The calculated EPC for anthracene (1,300,000 mg/kg) is based on a lognormal 95% UCL from a set of 12 samples (9 detects). Anthracene concentrations ranged between < 0.003 mg/kg and 60 mg/kg. Note that the EPC used in the closeout documentation for this waste site decision unit is greater than the maximum detected concentration. The maximum detected concentration is less than the final GWP SSL for this waste site decision unit.

b. Exceeded GWP SSL but eliminated through further evaluation. The calculated EPC for fluorene (10,000 mg/kg) is based on a lognormal 95% UCL from a set of 12 samples (9 detects). Fluorene concentrations ranged between 0.011 mg/kg and 32 mg/kg. Note that the EPC used in the closeout documentation for this waste site is greater than the maximum detected concentration. The maximum concentration is less than the final GWP SSL for this waste site decision unit.

c. Exceeded GWP SSL but eliminated through further evaluation. The calculated EPC for nitrate (23 mg/kg) is based on a lognormal 95% UCL from a set of 12 samples (12 detects). All nitrate concentrations ranged between 0.24 mg/kg and 25 mg/kg and were within the range of naturally occurring levels (11.7 mg/kg to 204 mg/kg) at the Hanford Site. The EPC likely overstates the concentration at this decision unit and measured concentrations are unlikely to impact groundwater.

d. Exceeded GWP SSL but eliminated through further evaluation. The calculated EPC for cadmium (0.991 mg/kg) is the maximum detect from a set of 6 samples (6 detects). All cadmium results were within the range of naturally occurring levels (0.563 mg/kg and 2.98 mg/kg) at the Hanford Site. The EPC likely overstates the concentration at this decision unit and is unlikely to impact groundwater.

e. Exceeded GWP SSL but eliminated through further evaluation. The calculated EPC for sulfate (2,100 mg/kg) is based on the maximum detect from a set of 12 samples (12 detects). The sample with the maximum concentration is identified as anomalous material, all remaining samples were soil and concentrations ranged between 3.3 m/kg and 112 mg/kg. All sulfate results were within the range of naturally occurring levels (237 mg/kg and 12,600 mg/kg) at the Hanford Site. The EPC likely overstates the concentration at this decision unit and unlikely to impact groundwater.

Table 7. Evaluation of 100-D Source OU Waste Site Data with EPCs Greater than Surface Water Protection Soil Screening Levels

Waste Site Name	Waste Site Decision Unit	CAS NO.	Contaminant Name	Statistical or Maximum Result (mg/kg or pCi/g)	Surface Water Protection RAG from RDR/RAWP[1] (mg/kg or pCi/g)	Unit-Length Soil Screening Level Protective of Surface Water[2] (mg·m/kg or pCi·m/kg)	Waste Site Representative Dimension in General Direction of Groundwater Flow (m)	Basis for Waste Site Representative Dimension	Initial Scaled SWP Soil Screening Level (mg/kg or pCi/g)	Background 90th Percentile (mg/kg or pCi/g)	Required Detection Limit (mg/kg or pCi/g)	Final Scaled Soil SWP Screening Level (mg/kg or pCi/g)	Basis of Final Soil Screening Level Protective of Surface Water	Does Result Exceed Soil Screening Level Protective of Surface Water?	Comments
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7782-49-2	Selenium	1.2	1	2.01E+01	23.84	Sampling Maps (using PDF Measure)	8.42E-01	0.78	1	1.00E+00	RDL	Yes	--(a)
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7782-49-2	Selenium	1.1	1	2.01E+01	47.137	Sampling Maps (using PDF Measure)	4.26E-01	0.78	1	1.00E+00	RDL	Yes	--(a)
100-D-75:2	100-D-75:2_Shallow	7440-43-9	Cadmium	0.991	0.81	1.34E+00	129.6	Sampling Maps (using PDF Measure)	1.04E-02	0.563	0.2	5.63E-01	BG	Yes	--(b)

1. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6

2. ECF-HANFORD-11-0063. A 70:30 source distribtuion is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g.

a. Exceeded SWP SSL but eliminated through further evaluation. Although the EPC is greater than the final SSL within the shallow zone, selenium concentrations were within the range of background within the deep zone. Therefore the EPC likely overstates the concentration at this decision unit and is unlikely to impact surface water.

b. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for cadmium (0.991 mg/kg) is based on the maximum detect from a set of 6 samples (6 detects). All cadmium results were within the range of naturally occurring levels (0.563 mg/kg and 2.98 mg/kg) at the Hanford Site. The EPC likely overstates the concentration at this decision unit and unlikely to impact surface water.

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-8	100-D-8 Shallow	14133-76-7	Technetium-99	Rad	0.472	1.50E+00	3.15E-05	99.99%	--	-	-
100-D-8	100-D-8 Shallow	10028-17-8	Tritium	Rad	0.0149	6.23E+02	2.39E-09	0.01%	--	-	-
Total Radiological Risk Estimate							**3.15E-05**				
100-D-8	100-D-8 Shallow	7440-36-0	Antimony	Non-Rad	1.3	--	-	-	3.20E+01	4.06E-02	99.92%
100-D-8	100-D-8 Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	4.4	--	-	-	1.28E+05	3.44E-05	0.08%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.07E-02**	
Total Non-Radiological and Radiological Risk Estimate							**3.15E-05**			**4.07E-02**	

100-D-8	100-D-8 Overburden	13981-37-8	Nickel-63	Rad	7.44	6.08E+02	1.22E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.22E-06**				
100-D-8	100-D-8 Overburden	7440-36-0	Antimony	Non-Rad	1.3	--	-	-	3.20E+01	4.06E-02	98.03%
100-D-8	100-D-8 Overburden	7440-42-8	Boron	Non-Rad	2.3	--	-	-	1.60E+04	1.44E-04	0.35%
100-D-8	100-D-8 Overburden	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	1.57%
100-D-8	100-D-8 Overburden	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	3.1	--	-	-	1.28E+05	2.42E-05	0.06%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.14E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.22E-06**				

100-D-8	100-D-8 Staging Pile	10028-17-8	Tritium	Rad	0.0593	6.23E+02	9.52E-09	100.00%	--	-	-
Total Radiological Risk Estimate							**9.52E-09**				
100-D-8	100-D-8 Staging Pile	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	5.94%
100-D-8	100-D-8 Staging Pile	18540-29-9	Hexavalent Chromium	Non-Rad	0.213	--	-	-	2.40E+02	8.88E-04	64.92%
100-D-8	100-D-8 Staging Pile	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	2.9	--	-	-	1.28E+05	2.27E-05	1.66%
100-D-8	100-D-8 Staging Pile	120-12-7	Anthracene	Non-Rad	0.0066	--	-	-	2.40E+04	2.75E-07	0.02%
100-D-8	100-D-8 Staging Pile	56-55-3	Benzo(a)anthracene	Non-Rad	0.18	1.37E+00	1.31E-07	12.28%	--	-	-
100-D-8	100-D-8 Staging Pile	50-32-8	Benzo(a)pyrene	Non-Rad	0.1	1.37E-01	7.30E-07	68.23%	--	-	-
100-D-8	100-D-8 Staging Pile	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.12	1.37E+00	8.76E-08	8.19%	--	-	-
100-D-8	100-D-8 Staging Pile	191-24-2	Benzo(ghi)perylene	Non-Rad	0.044	--	-	-	--	-	-
100-D-8	100-D-8 Staging Pile	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.067	1.37E+00	4.89E-08	4.57%	--	-	-
100-D-8	100-D-8 Staging Pile	218-01-9	Chrysene	Non-Rad	0.15	1.37E+01	1.10E-08	1.02%	--	-	-
100-D-8	100-D-8 Staging Pile	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.012	1.37E+00	8.76E-09	0.82%	--	-	-
100-D-8	100-D-8 Staging Pile	206-44-0	Fluoranthene	Non-Rad	0.3	--	-	-	3.20E+03	9.38E-05	6.86%
100-D-8	100-D-8 Staging Pile	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.062	1.37E+00	4.53E-08	4.23%	--	-	-
100-D-8	100-D-8 Staging Pile	85-01-8	Phenanthrene	Non-Rad	0.096	--	-	-	--	-	-
100-D-8	100-D-8 Staging Pile	129-00-0	Pyrene	Non-Rad	0.32	--	-	-	2.40E+03	1.33E-04	9.75%
100-D-8	100-D-8 Staging Pile	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.09	7.14E+01	1.26E-09	0.12%	1.60E+03	5.63E-05	4.11%
100-D-8	100-D-8 Staging Pile	131-11-3	Dimethyl phthalate	Non-Rad	0.16	--	-	-	--	-	-
100-D-8	100-D-8 Staging Pile	108-95-2	Phenol	Non-Rad	0.05	--	-	-	2.40E+04	2.08E-06	0.15%
100-D-8	100-D-8 Staging Pile	60-57-1	Dieldrin	Non-Rad	0.00036	6.25E-02	5.76E-09	0.54%	4.00E+00	9.00E-05	6.58%
100-D-8	100-D-8 Staging Pile	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00026	2.94E+00	8.84E-11	0.01%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.07E-05**			**1.37E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.08E-05**				

100-D-8	100-D-8 Shoreline Segment	10045-97-3	Cesium-137	Rad	0.651	4.40E+00	1.48E-05	11.00%	--	-	-
100-D-8	100-D-8 Shoreline Segment	10198-40-0	Cobalt-60	Rad	0.911	3.10E+00	2.94E-05	21.85%			
100-D-8	100-D-8 Shoreline Segment	14683-23-9	Europium-152	Rad	1.95	3.66E+00	5.33E-05	39.62%			
100-D-8	100-D-8 Shoreline Segment	13981-37-8	Nickel-63	Rad	36.1	6.08E+02	5.94E-06	4.42%			
100-D-8	100-D-8 Shoreline Segment	PU-239/240	Plutonium-239/240	Rad	0.203	2.03E+02	1.00E-07	0.07%			
100-D-8	100-D-8 Shoreline Segment	10098-97-2	Strontium-90	Rad	0.703	2.27E+00	3.10E-05	23.03%			
Total Radiological Risk Estimate							**1.34E-04**				
100-D-8	100-D-8 Shoreline Segment	7440-43-9	Cadmium	Non-Rad	2.8	--	-	-	8.00E+01	3.50E-02	9.69%
100-D-8	100-D-8 Shoreline Segment	7440-47-3	Chromium	Non-Rad	36.6	--	-	-	1.20E+05	3.05E-04	0.08%
100-D-8	100-D-8 Shoreline Segment	18540-29-9	Hexavalent Chromium	Non-Rad	0.213	--	-	-	2.40E+02	8.88E-04	0.25%
100-D-8	100-D-8 Shoreline Segment	7440-50-8	Copper	Non-Rad	41.5	--	-	-	3.20E+03	1.30E-02	3.59%
100-D-8	100-D-8 Shoreline Segment	7439-92-1	Lead	Non-Rad	31.2	--	-	-	--	-	-
100-D-8	100-D-8 Shoreline Segment	7439-96-5	Manganese	Non-Rad	418	--	-	-	1.12E+04	3.73E-02	10.33%
100-D-8	100-D-8 Shoreline Segment	7439-97-6	Mercury	Non-Rad	0.83	--	-	-	2.40E+01	3.46E-02	9.57%
100-D-8	100-D-8 Shoreline Segment	7439-98-7	Molybdenum	Non-Rad	2.2	--	-	-	4.00E+02	5.50E-03	1.52%
100-D-8	100-D-8 Shoreline Segment	7440-62-2	Vanadium	Non-Rad	85.3	--	-	-	4.00E+02	2.13E-01	59.03%
100-D-8	100-D-8 Shoreline Segment	7440-66-6	Zinc	Non-Rad	286	--	-	-	2.40E+04	1.19E-02	3.30%
100-D-8	100-D-8 Shoreline Segment	83-32-9	Acenaphthene	Non-Rad	2.7	--	-	-	4.80E+03	5.63E-04	0.16%
100-D-8	100-D-8 Shoreline Segment	56-55-3	Benzo(a)anthracene	Non-Rad	0.15	1.37E+00	1.10E-07	5.66%	--	-	-
100-D-8	100-D-8 Shoreline Segment	50-32-8	Benzo(a)pyrene	Non-Rad	0.21	1.37E-01	1.53E-06	79.29%	--	-	-
100-D-8	100-D-8 Shoreline Segment	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.22	1.37E+00	1.61E-07	8.31%	--	-	-
100-D-8	100-D-8 Shoreline Segment	191-24-2	Benzo(ghi)perylene	Non-Rad	0.074	--	-	-	--	-	-
100-D-8	100-D-8 Shoreline Segment	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0099	1.37E+00	7.23E-09	0.37%	--	-	-
100-D-8	100-D-8 Shoreline Segment	218-01-9	Chrysene	Non-Rad	0.15	1.37E+01	1.10E-08	0.57%	--	-	-
100-D-8	100-D-8 Shoreline Segment	206-44-0	Fluoranthene	Non-Rad	0.24	--	-	-	3.20E+03	7.50E-05	0.02%
100-D-8	100-D-8 Shoreline Segment	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.065	1.37E+00	4.75E-08	2.45%	--	-	-
100-D-8	100-D-8 Shoreline Segment	85-01-8	Phenanthrene	Non-Rad	0.036	--	-	-	--	-	-
100-D-8	100-D-8 Shoreline Segment	129-00-0	Pyrene	Non-Rad	0.027	--	-	-	2.40E+03	1.13E-05	0.00%
100-D-8	100-D-8 Shoreline Segment	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.15	7.14E+01	2.10E-09	0.11%	1.60E+03	9.38E-05	0.03%
100-D-8	100-D-8 Shoreline Segment	131-11-3	Dimethyl phthalate	Non-Rad	0.17	--	-	-	--	-	-
100-D-8	100-D-8 Shoreline Segment	108-95-2	Phenol	Non-Rad	0.048	--	-	-	2.40E+04	2.00E-06	0.00%
100-D-8	100-D-8 Shoreline Segment	11097-69-1	Aroclor-1254	Non-Rad	0.014	5.00E-01	2.80E-08	1.45%	1.60E+00	8.75E-03	2.42%
100-D-8	100-D-8 Shoreline Segment	11096-82-5	Aroclor-1260	Non-Rad	0.017	5.00E-01	3.40E-08	1.76%	--	-	-
100-D-8	100-D-8 Shoreline Segment	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00051	2.94E+00	1.73E-10	0.01%	--	-	-
100-D-8	100-D-8 Shoreline Segment	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0014	2.94E+00	4.76E-10	0.02%	4.00E+01	3.50E-05	0.01%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.93E-06**			**3.61E-01**	
Total Non-Radiological and Radiological Risk Estimate							**1.36E-04**				

100-D-14	100-D-14 Shallow	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-05	1.67%
100-D-14	100-D-14 Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.38	--	-	-	2.40E+02	1.58E-03	30.28%
100-D-14	100-D-14 Shallow	7782-49-2	Selenium	Non-Rad	1.4	--	-	-	4.00E+02	3.50E-03	66.94%
100-D-14	100-D-14 Shallow	NO2-N	Nitrogen in Nitrite	Non-Rad	0.46	--	-	-	8.00E+03	5.75E-05	1.10%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.23E-03**	

100-D-14	100-D-14 Staging Pile	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	2.04%
100-D-14	100-D-14 Staging Pile	NO2-N	Nitrogen in Nitrite	Non-Rad	0.46	--	-	-	8.00E+03	5.75E-05	1.17%
100-D-14	100-D-14 Staging Pile	7782-49-2	Selenium	Non-Rad	1.9	--	-	-	4.00E+02	4.75E-03	96.79%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.91E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	1.78%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	18540-29-9	Hexavalent Chromium	Non-Rad	0.368	--	-	-	2.40E+02	1.53E-03	36.44%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7439-98-7	Molybdenum	Non-Rad	0.23	--	-	-	4.00E+02	5.75E-04	13.66%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_1	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	48.12%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.21E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	2.22%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7439-98-7	Molybdenum	Non-Rad	0.23	--	-	-	4.00E+02	5.75E-04	15.73%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_2	7782-49-2	Selenium	Non-Rad	1.2	--	-	-	4.00E+02	3.00E-03	82.05%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.66E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	18540-29-9	Hexavalent Chromium	Non-Rad	0.269	--	-	-	2.40E+02	1.12E-03	23.62%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7439-98-7	Molybdenum	Non-Rad	0.35	--	-	-	4.00E+02	8.75E-04	18.44%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_3	7782-49-2	Selenium	Non-Rad	1.1	--	-	-	4.00E+02	2.75E-03	57.95%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.75E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_4	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	4.46%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_4	18540-29-9	Hexavalent Chromium	Non-Rad	0.248	--	-	-	2.40E+02	1.03E-03	61.39%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_4	7439-98-7	Molybdenum	Non-Rad	0.23	--	-	-	4.00E+02	5.75E-04	34.16%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.68E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_5	18540-29-9	Hexavalent Chromium	Non-Rad	0.205	--	-	-	2.40E+02	8.54E-04	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**8.54E-04**	

100-D-30 and 100-D-104_DU6	100-D-30 and 100-D-104_Shallow_6	7439-98-7	Molybdenum	Non-Rad	0.51	--	-	-	4.00E+02	1.28E-03	58.73%
100-D-30 and 100-D-104_DU6	100-D-30 and 100-D-104_Shallow_6	18540-29-9	Hexavalent Chromium	Non-Rad	0.215	--	-	-	2.40E+02	8.96E-04	41.27%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.17E-03**	

100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_7	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	4.33%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_7	7439-98-7	Molybdenum	Non-Rad	0.36	--	-	-	4.00E+02	9.00E-04	36.64%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_7	18540-29-9	Hexavalent Chromium	Non-Rad	0.348	--	-	-	2.40E+02	1.45E-03	59.03%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.46E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_Shallow_8	18540-29-9	Hexavalent Chromium	Non-Rad	0.41	--	-	-	2.40E+02	1.71E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.71E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA2	7440-42-8	Boron	Non-Rad	3.1	--	-	-	1.60E+04	1.94E-04	6.15%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA2	18540-29-9	Hexavalent Chromium	Non-Rad	0.409	--	-	-	2.40E+02	1.70E-03	54.14%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA2	7439-98-7	Molybdenum	Non-Rad	0.5	--	-	-	4.00E+02	1.25E-03	39.71%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.15E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA3	7440-42-8	Boron	Non-Rad	4.2	--	-	-	1.60E+04	2.63E-04	4.73%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA3	18540-29-9	Hexavalent Chromium	Non-Rad	0.308	--	-	-	2.40E+02	1.28E-03	23.14%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA3	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	13.52%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_SPA3	7782-49-2	Selenium	Non-Rad	1.3	--	-	-	4.00E+02	3.25E-03	58.60%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.55E-03**	
100-D-30 and 100-D-104	100-D-30 Tier II SPA	7440-42-8	Boron	Non-Rad	9.2	--	-	-	1.60E+04	5.75E-04	13.87%
100-D-30 and 100-D-104	100-D-30 Tier II SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.701	--	-	-	2.40E+02	2.92E-03	70.45%
100-D-30 and 100-D-104	100-D-30 Tier II SPA	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	15.68%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.15E-03**	
100-D-30 and 100-D-104	100-D-30 Tier III SPA	7440-42-8	Boron	Non-Rad	7.6	--	-	-	1.60E+04	4.75E-04	13.40%
100-D-30 and 100-D-104	100-D-30 Tier III SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.371	--	-	-	2.40E+02	1.55E-03	43.60%
100-D-30 and 100-D-104	100-D-30 Tier III SPA	7439-98-7	Molybdenum	Non-Rad	0.61	--	-	-	4.00E+02	1.53E-03	43.01%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.55E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB West Lift 1	7439-98-7	Molybdenum	Non-Rad	0.23	--	-	-	4.00E+02	5.75E-04	39.54%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB West Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.211	--	-	-	2.40E+02	8.79E-04	60.46%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.45E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB West Lift 2	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	49.86%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB West Lift 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.204	--	-	-	2.40E+02	8.50E-04	58.45%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.58E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB East Lift 1	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-05	4.70%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB East Lift 1	7439-98-7	Molybdenum	Non-Rad	0.309	--	-	-	4.00E+02	7.73E-04	41.53%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB East Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.24	--	-	-	2.40E+02	1.00E-03	53.76%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.86E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB East Lift 2	7439-98-7	Molybdenum	Non-Rad	0.38	--	-	-	4.00E+02	9.50E-04	58.76%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB East Lift 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.16	--	-	-	2.40E+02	6.67E-04	41.24%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.62E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB Lift 1	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	0.38%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB Lift 1	7440-62-2	Vanadium	Non-Rad	85.4	--	-	-	4.00E+02	2.14E-01	99.62%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.14E-01**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB Lift 2	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	41.54%
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB Lift 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.228	--	-	-	2.40E+02	9.50E-04	58.46%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.63E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB3EVL1 Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	1.37	--	-	-	2.40E+02	5.71E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.71E-03**	
100-D-30 and 100-D-104	100-D-30 and 100-D-104_OB3EVL2 Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.322	--	-	-	2.40E+02	1.34E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.34E-03**	
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	0.08%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	7440-43-9	Cadmium	Non-Rad	0.89	--	-	-	8.00E+01	1.11E-02	11.01%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	7440-50-8	Copper	Non-Rad	23.9	--	-	-	3.20E+03	7.47E-03	7.39%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.513	--	-	-	2.40E+02	2.14E-03	2.12%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	7439-97-6	Mercury	Non-Rad	1.9	--	-	-	2.40E+01	7.92E-02	78.37%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	7439-98-7	Molybdenum	Non-Rad	0.41	--	-	-	4.00E+02	1.03E-03	1.01%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.053	1.37E+00	3.87E-08	17.03%	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.017	1.37E-01	1.24E-07	54.61%	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.081	1.37E+00	5.91E-08	26.02%	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.025	--	-	-	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0059	1.37E+00	4.31E-09	1.90%	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	218-01-9	Chrysene	Non-Rad	0.014	1.37E+01	1.02E-09	0.45%	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	206-44-0	Fluoranthene	Non-Rad	0.026	--	-	-	3.20E+03	8.13E-06	0.01%
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	85-01-8	Phenanthrene	Non-Rad	0.014	--	-	-	--	-	-
100-D-31:11, 100-D-72 and 100-D-31:12	100-D-31:11_OB	129-00-0	Pyrene	Non-Rad	0.024	--	-	-	2.40E+03	1.00E-05	0.01%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.27E-07**			**1.01E-01**	
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	0.78%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.195	--	-	-	2.40E+02	8.13E-04	9.17%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	7440-22-4	Silver	Non-Rad	0.14	--	-	-	4.00E+02	3.50E-04	3.95%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	ND2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	3.9	--	-	-	1.28E+05	3.05E-05	0.34%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	3.5	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	12	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-	TPHGASOLINE	Total petroleum hydrocarbons - gasoline range	Non-Rad	3.5	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.012	1.37E+00	8.76E-09	3.80%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.022	1.37E-01	1.61E-07	69.67%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.025	1.37E+00	1.83E-08	7.92%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.016	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.01	1.37E+00	7.30E-09	3.17%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	218-01-9	Chrysene	Non-Rad	0.016	1.37E+01	1.17E-09	0.51%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	84-66-2	Diethyl phthalate	Non-Rad	0.029	--	-	-	6.40E+04	4.53E-07	0.01%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	206-44-0	Fluoranthene	Non-Rad	0.033	--	-	-	3.20E+03	1.03E-05	0.12%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.013	1.37E+00	9.49E-09	4.12%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	85-01-8	Phenanthrene	Non-Rad	0.016	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	129-00-0	Pyrene	Non-Rad	0.036	--	-	-	2.40E+03	1.50E-05	0.17%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0028	2.94E+00	9.52E-10	0.41%	4.00E+01	7.00E-05	0.79%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.012	5.00E-01	2.40E-08	10.41%	1.60E+00	7.50E-03	84.67%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.31E-07**			**8.86E-03**	
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_OB	7440-42-8	Boron	Non-Rad	3.5	--	-	-	1.60E+04	2.19E-04	3.03%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.326	--	-	-	2.40E+02	1.36E-03	18.82%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_OB	7782-49-2	Selenium	Non-Rad	0.79	--	-	-	4.00E+02	1.98E-03	27.37%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_OB	ND2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	2.6	--	-	-	1.28E+05	2.03E-05	0.28%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	3.3	--	-	-	--	-	-

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	3.6	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-	83-32-9	Acenaphthene	Non-Rad	0.022			0.00%			0.00%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	56-55-3	Benzo(a)anthracene	Non-Rad	0.024	1.37E+00	1.75E-08	4.77%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	50-32-8	Benzo(a)pyrene	Non-Rad	0.038	1.37E-01	2.77E-07	75.54%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.011	1.37E+00	8.03E-09	2.19%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	191-24-2	Benzo(ghi)perylene	Non-Rad	0.022	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.018	1.37E+00	1.31E-08	3.58%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	218-01-9	Chrysene	Non-Rad	0.035	1.37E+01	2.56E-09	0.70%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	206-44-0	Fluoranthene	Non-Rad	0.054	--	-	-	3.20E+03	1.69E-05	0.23%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	86-73-7	Fluorene	Non-Rad	0.011			0.00%			0.00%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.05	1.37E+00	3.65E-08	9.94%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	85-01-8	Phenanthrene	Non-Rad	0.03	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	129-00-0	Pyrene	Non-Rad	0.036	--	-	-	2.40E+03	1.50E-05	0.21%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00032			0.00%			0.00%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.002	2.94E+00	6.80E-10	0.19%	4.00E+01	5.00E-05	0.69%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_08	11097-69-1	Aroclor-1254	Non-Rad	0.0057	5.00E-01	1.14E-08	3.10%	1.60E+00	3.56E-03	49.36%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.67E-07**			**7.22E-03**	

100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	7440-41-7	Beryllium	Non-Rad	0.19	--	-	-	1.60E+02	1.19E-03	33.33%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	7440-42-8	Boron	Non-Rad	2.2	--	-	-	1.60E+04	1.38E-04	3.86%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.409	--	-	-	2.40E+02	1.70E-03	47.84%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	24.4	--	-	-	1.28E+05	1.91E-04	5.35%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	8.4	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	18	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-	TPHGASOLINE	Total petroleum hydrocarbons - gasoline range	Non-Rad	0.36	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-	83-32-9	Acenaphthene	Non-Rad	0.063	--	-	-	4.80E+03	1.31E-05	0.37%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108,	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-	120-12-7	Anthracene	Non-Rad	0.026	--	-	-	2.40E+04	1.08E-06	0.03%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.033	1.37E+00	2.41E-08	6.03%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.038	1.37E-01	2.77E-07	69.46%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.036	1.37E+00	2.63E-08	6.58%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.06	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.015	1.37E+00	1.10E-08	2.74%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	86-74-8	Carbazole	Non-Rad	0.068	5.00E+01	1.36E-09	0.34%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	218-01-9	Chrysene	Non-Rad	0.032	1.37E+01	2.34E-09	0.58%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.023	1.37E+00	1.68E-08	4.20%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	132-64-9	Dibenzofuran	Non-Rad	0.022	--	-	-	8.00E+01	2.75E-04	7.72%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	206-44-0	Fluoranthene	Non-Rad	0.063	--	-	-	3.20E+03	1.97E-05	0.55%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	86-73-7	Fluorene	Non-Rad	0.016	--	-	-	3.20E+03	5.00E-06	0.14%
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.055	1.37E+00	4.02E-08	10.05%	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	85-01-8	Phenanthrene	Non-Rad	0.084	--	-	-	--	-	-
100-D-31:11, 100-D-72, 100-D-31:12, 100-D-108, and 100-D-109	100-D-31:11 and 100-D-72, 100-D-31:12, 100-D-108, 100-D-109_SPA	129-00-0	Pyrene	Non-Rad	0.069	--	-	-	2.40E+03	2.88E-05	0.81%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.99E-07**			**3.56E-03**	

100-D-50:1	100-D-50:1_Deep	14762-75-5	Carbon-14	Rad	0.961	8.10E+01	1.19E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.19E-06**			**0.00E+00**	

100-D-50:1	100-D-50:1_Deep Focused	10028-17-8	Tritium	Rad	4.64	6.23E+02	7.45E-07	100.00%	--	-	-
Total Radiological Risk Estimate							**7.45E-07**			**0.00E+00**	

100-D-50:1	100-D-50:1 SPA	14762-75-5	Carbon-14	Rad	0.905	8.10E+01	1.12E-06	72.12%	--	-	-
100-D-50:1	100-D-50:1 SPA	10045-97-3	Cesium-137	Rad	0.019	4.40E+00	4.32E-07	27.88%	--	-	-
Total Radiological Risk Estimate							**1.55E-06**			**0.00E+00**	
100-D-50:1	100-D-50:1 SPA	7440-42-8	Boron	Non-Rad	2.23	--	-	-	1.60E+04	1.39E-04	6.40%
100-D-50:1	100-D-50:1 SPA	7439-98-7	Molybdenum	Non-Rad	0.652	--	-	-	4.00E+02	1.63E-03	74.90%
100-D-50:1	100-D-50:1 SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	40.3	--	-	-	1.28E+05	3.15E-04	14.47%
100-D-50:1	100-D-50:1 SPA	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.147	7.14E+01	2.06E-09	2.11%	1.60E+03	9.19E-05	4.22%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.06E-09**			**2.18E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.55E-06**				

100-D-50:1	100-D-50:1 OB North	14762-75-5	Carbon-14	Rad	0.989	8.10E+01	1.22E-06	78.82%	--	-	-
100-D-50:1	100-D-50:1 OB North	10045-97-3	Cesium-137	Rad	0.018	4.40E+00	4.09E-07	26.41%	--	-	-
Total Radiological Risk Estimate							**1.63E-06**			**0.00E+00**	
100-D-50:1	100-D-50:1 OB North	7440-42-8	Boron	Non-Rad	1.8	--	-	-	1.60E+04	1.13E-04	4.58%
100-D-50:1	100-D-50:1 OB North	7439-98-7	Molybdenum	Non-Rad	0.893	--	-	-	4.00E+02	2.23E-03	90.81%
100-D-50:1	100-D-50:1 OB North	NO2-N	Nitrogen in Nitrite	Non-Rad	0.9	--	-	-	8.00E+03	1.13E-04	4.58%
100-D-50:1	100-D-50:1 OB North	84-66-2	Diethyl phthalate	Non-Rad	0.0647	--	-	-	6.40E+04	1.01E-06	0.04%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.46E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.63E-06**				

100-D-50:1	100-D-50:1 OB South	14762-75-5	Carbon-14	Rad	1.27	8.10E+01	1.57E-06	62.72%	--	-	-
100-D-50:1	100-D-50:1 OB South	10045-97-3	Cesium-137	Rad	0.041	4.40E+00	9.32E-07	37.28%	--	-	-
Total Radiological Risk Estimate							**2.50E-06**			**0.00E+00**	
100-D-50:1	100-D-50:1 OB South	7440-42-8	Boron	Non-Rad	2.07	--	-	-	1.60E+04	1.29E-04	0.02%
100-D-50:1	100-D-50:1 OB South	7439-98-7	Molybdenum	Non-Rad	0.477	--	-	-	4.00E+02	1.19E-03	0.21%
100-D-50:1	100-D-50:1 OB South	11097-69-1	Aroclor-1254	Non-Rad	0.9	5.00E-01	1.80E-06	93.29%	1.60E+00	5.63E-01	99.77%
100-D-50:1	100-D-50:1 OB South	11096-82-5	Aroclor-1260	Non-Rad	0.0647	5.00E-01	1.29E-07	6.71%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.93E-06**			**5.64E-01**	
Total Non-Radiological and Radiological Risk Estimate							**4.43E-06**				

100-D-50:4	100-D-50:4_Shallow	14762-75-5	Carbon-14	Rad	0.237	8.10E+01	2.93E-07	4.73%	--	-	-
100-D-50:4	100-D-50:4_Shallow	10045-97-3	Cesium-137	Rad	0.258	4.40E+00	5.86E-06	94.88%	--	-	-
100-D-50:4	100-D-50:4_Shallow	10028-17-8	Tritium	Rad	0.15	6.23E+02	2.41E-08	0.39%	--	-	-
Total Radiological Risk Estimate							**6.18E-06**			**0.00E+00**	
100-D-50:4	100-D-50:4_Shallow	7440-42-8	Boron	Non-Rad	0.96	--	-	-	1.60E+04	6.00E-05	1.69%
100-D-50:4	100-D-50:4_Shallow	7439-98-7	Molybdenum	Non-Rad	0.72	--	-	-	4.00E+02	1.80E-03	50.74%
100-D-50:4	100-D-50:4_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.391	--	-	-	2.40E+02	1.63E-03	45.93%
100-D-50:4	100-D-50:4_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	12.2	--	-	-	--	-	-
100-D-50:4	100-D-50:4_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	17.4	--	-	-	--	-	-
100-D-50:4	100-D-50:4_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0072	1.37E-01	5.26E-08	53.78%	--	-	-
100-D-50:4	100-D-50:4_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.02	1.37E+00	1.46E-08	14.94%	--	-	-
100-D-50:4	100-D-50:4_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0067	1.37E+00	4.89E-09	5.00%	--	-	-
100-D-50:4	100-D-50:4_Shallow	218-01-9	chrysene	Non-Rad	0.023	1.37E+01	1.68E-09	1.72%	--	-	-
100-D-50:4	100-D-50:4_Shallow	206-44-0	fluoranthene	Non-Rad	0.099	--	-	-	3.20E+03	3.09E-05	0.87%
100-D-50:4	100-D-50:4_Shallow	85-01-8	Phenanthrene	Non-Rad	0.14	--	-	-	--	-	-
100-D-50:4	100-D-50:4_Shallow	129-00-0	Pyrene	Non-Rad	0.065	--	-	-	2.40E+03	2.71E-05	0.76%
100-D-50:4	100-D-50:4_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.012	5.00E-01	2.40E-08	24.56%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.77E-08**			**3.55E-03**	

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS ND.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological and Radiological Risk Estimate							**6.28E-06**				
100-D-50:4	100-D-50:4_SPA	10028-17-8	Tritium	Rad	0.0291	6.23E+02	4.67E-09	0.08%	--	-	-
Total Radiological Risk Estimate							**4.67E-09**			**0.00E+00**	
100-D-50:4	100-D-50:4_SPA	7440-42-8	Boron	Non-Rad	2.1	--	-	-	1.60E+04	1.31E-04	2.20%
100-D-50:4	100-D-50:4_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	1.11	--	-	-	2.40E+02	4.63E-03	77.46%
		7439-92-1	Lead	Non-Rad	22.4	--	-	-	--	-	-
100-D-50:4	100-D-50:4_SPA	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	13.82%
100-D-50:4	100-D-50:4_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	35.3	--	-	-	--	-	-
100-D-50:4	100-D-50:4_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	119	--	-	-	--	-	-
100-D-50:4	100-D-50:4_SPA	83-32-9	acenaphthene	Non-Rad	0.017	--	-	-	4.80E+03	3.54E-06	0.06%
100-D-50:4	100-D-50:4_SPA	120-12-7	anthracene	Non-Rad	0.0072	--	-	-	2.40E+04	3.00E-07	0.01%
100-D-50:4	100-D-50:4_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.063	1.37E+00	4.60E-08	7.17%	--	-	-
100-D-50:4	100-D-50:4_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.063	1.37E-01	4.60E-07	71.74%	--	-	-
100-D-50:4	100-D-50:4_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.077	1.37E+00	5.62E-08	8.77%	--	-	-
100-D-50:4	100-D-50:4_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.03	1.37E+00	2.19E-08	3.42%	--	-	-
100-D-50:4	100-D-50:4_SPA	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.105	7.14E+01	1.47E-09	0.23%	1.60E+03	6.56E-05	1.10%
100-D-50:4	100-D-50:4_SPA	218-01-9	chrysene	Non-Rad	0.058	1.37E+01	4.23E-09	0.66%	--	-	-
100-D-50:4	100-D-50:4_SPA	132-64-9	Dibenzofuran	Non-Rad	0.02	--	-	-	8.00E+01	2.50E-04	4.19%
100-D-50:4	100-D-50:4_SPA	206-44-0	fluoranthene	Non-Rad	0.082	--	-	-	3.20E+03	2.56E-05	0.43%
100-D-50:4	100-D-50:4_SPA	86-73-7	fluorene	Non-Rad	0.014	--	-	-	3.20E+03	4.38E-06	0.07%
100-D-50:4	100-D-50:4_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.046	1.37E+00	3.36E-08	5.24%	--	-	-
100-D-50:4	100-D-50:4_SPA	85-01-8	Phenanthrene	Non-Rad	0.078	--	-	-	--	-	-
100-D-50:4	100-D-50:4_SPA	129-00-0	Pyrene	Non-Rad	0.097	--	-	-	2.40E+03	4.04E-05	0.68%
100-D-50:4	100-D-50:4_SPA	11096-82-5	Aroclor-1260	Non-Rad	0.0089	5.00E-01	1.78E-08	2.78%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.41E-07**			**5.97E-03**	
Total Non-Radiological and Radiological Risk Estimate							**6.46E-07**				
100-D-50:7	100-D-50:7_OB	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	0.37%
100-D-50:7	100-D-50:7_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.155	--	-	-	2.40E+02	6.46E-04	3.48%
100-D-50:7	100-D-50:7_OB	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	4.04%
100-D-50:7	100-D-50:7_OB	7440-66-6	Zinc	Non-Rad	406	--	-	-	2.40E+04	1.69E-02	91.16%
100-D-50:7	100-D-50:7_OB	11096-82-5	Aroclor-1260	Non-Rad	0.0095	5.00E-01	1.90E-08	88.87%	--	-	-
100-D-50:7	100-D-50:7_OB	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.007	2.94E+00	2.38E-09	11.13%	4.00E+01	1.75E-04	0.94%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.14E-08**			**1.86E-02**	
100-D-50:7	100-D-50:7_Shallow Focused	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	0.05%
100-D-50:7	100-D-50:7_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.265	--	-	-	2.40E+02	1.10E-03	0.77%
100-D-50:7	100-D-50:7_Shallow Focused	7439-97-6	Mercury	Non-Rad	2.6	--	-	-	2.40E+01	1.08E-01	75.90%
100-D-50:7	100-D-50:7_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.72	--	-	-	4.00E+02	1.80E-03	1.26%
100-D-50:7	100-D-50:7_Shallow Focused	7440-66-6	Zinc	Non-Rad	406	--	-	-	2.40E+04	1.69E-02	11.85%
100-D-50:7	100-D-50:7_Shallow Focused	72-54-8	4,4'-DDD (Dichlorodiphenyldichloroethane)	Non-Rad	0.0095	4.17E+00	2.28E-09	1.11%	--	-	-
100-D-50:7	100-D-50:7_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.018	2.94E+00	6.12E-09	2.98%	--	-	-
100-D-50:7	100-D-50:7_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.58	2.94E+00	1.97E-07	95.91%	4.00E+01	1.45E-02	10.16%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.05E-07**			**1.43E-01**	
100-D-50:8	100-D-50:8_Shallow	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	4.10%
100-D-50:8	100-D-50:8_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.193	--	-	-	2.40E+02	8.04E-04	43.96%
100-D-50:8	100-D-50:8_Shallow	7439-98-7	Molybdenum	Non-Rad	0.38	--	-	-	4.00E+02	9.50E-04	51.94%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.83E-03**	
100-D-50:8	100-D-50:8_SPA	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	4.01%
100-D-50:8	100-D-50:8_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.214	--	-	-	2.40E+02	8.92E-04	35.79%
100-D-50:8	100-D-50:8_SPA	7439-98-7	Molybdenum	Non-Rad	0.6	--	-	-	4.00E+02	1.50E-03	60.20%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.49E-03**	
100-D-50:9	100-D-50:9_Service Area 2_Shallow	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	4.09%
100-D-50:9	100-D-50:9_Service Area 2_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.265	--	-	-	2.40E+02	1.10E-03	55.61%
100-D-50:9	100-D-50:9_Service Area 2_Shallow	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	40.29%
100-D-50:9	100-D-50:9_Service Area 2_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.015	1.37E+00	1.10E-08	3.89%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.024	1.37E-01	1.75E-07	62.21%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.066	1.37E+00	4.82E-08	17.11%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.04	-	-	-	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.019	1.37E+00	1.39E-08	4.92%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	218-01-9	chrysene	Non-Rad	0.068	1.37E+01	4.96E-09	1.76%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.039	1.37E+00	2.85E-08	10.11%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.82E-07**			**1.99E-03**	
100-D-50:9	100-D-50:9_Service Area 2_OB	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	3.66%
100-D-50:9	100-D-50:9_Service Area 2_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.258	--	-	-	2.40E+02	1.08E-03	57.27%
100-D-50:9	100-D-50:9_Service Area 2_OB	7439-92-1	Lead	Non-Rad	16	--	-	-	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	38.62%
100-D-50:9	100-D-50:9_Service Area 2_OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.0059	1.37E+00	4.31E-09	0.42%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.015	1.37E+00	1.10E-08	1.06%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.026	--	-	-	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.019	1.37E+00	1.39E-08	1.35%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	218-01-9	chrysene	Non-Rad	0.01	1.37E+01	7.30E-10	0.07%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	206-44-0	Fluoranthene	Non-Rad	0.023			0.00%			0.00%
100-D-50:9	100-D-50:9_Service Area 2_OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	1.37	1.37E+00	1.00E-06	97.10%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_OB	129-00-0	Pyrene	Non-Rad	0.02	--	-	-	2.40E+03	8.33E-06	0.44%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.03E-05**			**1.88E-03**	
100-D-50:9	100-D-50:9_Service Area 2_SPA	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	2.67%
100-D-50:9	100-D-50:9_Service Area 2_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.693	--	-	-	2.40E+02	2.89E-03	77.00%
100-D-50:9	100-D-50:9_Service Area 2_SPA	7439-92-1	Lead	Non-Rad	15.3	--	-	-	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	20.00%
100-D-50:9	100-D-50:9_Service Area 2_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.014	1.37E+00	1.02E-08	16.13%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.007	1.37E-01	5.11E-08	80.65%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0011	1.37E+00	8.03E-10	1.27%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	218-01-9	chrysene	Non-Rad	0.017	1.37E+01	1.24E-09	1.96%	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	206-44-0	Fluoranthene	Non-Rad	0.024			0.00%			0.00%
100-D-50:9	100-D-50:9_Service Area 2_SPA	85-01-8	phenanthrene	Non-Rad	0.026	--	-	-	--	-	-
100-D-50:9	100-D-50:9_Service Area 2_SPA	129-00-0	Pyrene	Non-Rad	0.03	--	-	-	2.40E+03	1.25E-05	0.33%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.34E-08**			**3.75E-03**	
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	3.20%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	7439-98-7	Molybdenum	Non-Rad	0.43	--	-	-	4.00E+02	1.08E-03	42.28%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	7.9	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	18.1	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	91-57-6	2-Methylnaphthalene	Non-Rad	0.12	--	-	-	3.20E+02	3.75E-04	14.75%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	83-32-9	Acenaphthene	Non-Rad	0.19						
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	208-96-8	Acenaphthylene	Non-Rad	0.013	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	120-12-7	Anthracene	Non-Rad	0.39	--	-	-	2.40E+04	1.63E-05	0.64%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.66	1.37E+00	4.82E-07	32.38%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.023	1.37E-01	1.68E-07	11.28%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.5	1.37E+00	3.65E-07	24.53%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.32	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.18	1.37E+00	1.31E-07	8.83%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	86-74-8	Carbazole	Non-Rad	0.57						
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	218-01-9	chrysene	Non-Rad	0.56	1.37E+01	4.09E-08	2.75%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.092	1.37E+00	6.72E-08	4.51%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	132-64-9	Dibenzofuran	Non-Rad	0.34						
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	206-44-0	Fluoranthene	Non-Rad	1.2	--	-	-	3.20E+03	3.75E-04	14.75%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	86-73-7	Fluorene	Non-Rad	0.25	--	-	-	3.20E+03	7.81E-05	3.07%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.3	1.37E+00	2.19E-07	14.72%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	85-01-8	Phenanthrene	Non-Rad	1.2	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	129-00-0	Pyrene	Non-Rad	1.3	--	-	-	2.40E+03	5.42E-04	21.31%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.0075	5.00E-01	1.50E-08	1.01%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.49E-06**			**2.54E-03**	

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	0.04%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.259	--	-	-	2.40E+02	1.08E-03	0.38%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.51	--	-	-	4.00E+02	1.28E-03	0.45%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	7440-62-2	Vanadium	Non-Rad	113	--	-	-	4.00E+02	2.83E-01	99.13%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	16	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	24	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	56-55-3	Benzo(a)anthracene	Non-Rad	0.011	1.37E+00	8.03E-09	4.89%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.016	1.37E-01	1.17E-07	71.07%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.017	1.37E+00	1.24E-08	7.55%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.012	1.37E+00	8.76E-09	5.33%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	218-01-9	chrysene	Non-Rad	0.018	1.37E+01	1.31E-09	0.80%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	206-44-0	fluoranthene	Non-Rad	0.034	-	-	-	3.20E+03	1.06E-05	0.00%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.014	1.37E+00	1.02E-08	6.22%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	129-00-0	Pyrene	Non-Rad	0.04	--	-	-	2.40E+03	1.67E-05	0.01%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 Shallow Focused	11096-82-5	Aroclor-1260	Non-Rad	0.0034	5.00E-01	6.80E-09	4.14%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.64E-07**			**2.85E-01**	
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	3.44%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.313	--	-	-	2.40E+02	1.30E-03	59.74%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	33.21%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	83-32-9	Acenaphthene	Non-Rad	0.19	--	-	-	4.80E+03	3.96E-05	1.81%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	5.9	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	14	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.018	1.37E+00	1.31E-08	4.12%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.033	1.37E-01	2.41E-07	75.45%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.033	1.37E+00	2.41E-08	7.55%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.025	--	-	-	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.009	1.37E+00	6.57E-09	2.06%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	218-01-9	chrysene	Non-Rad	0.028	1.37E+01	2.04E-09	0.64%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	206-44-0	fluoranthene	Non-Rad	0.046	--	-	-	3.20E+03	1.44E-05	0.66%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.021	1.37E+00	1.53E-08	4.80%	--	-	-
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	129-00-0	Pyrene	Non-Rad	0.06	--	-	-	2.40E+03	2.50E-05	1.15%
100-D-62, 100-D-77 and 100-D-83:1	100-D-62, 100-D-77, 100-D-83:1 SPA	11096-82-5	Aroclor-1260	Non-Rad	0.0086	5.00E-01	1.72E-08	5.39%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.19E-07**			**2.18E-03**	
100-D-65	100-D-65_Shallow	14683-23-9	Europium-152	Rad	0.135	3.66E+00	3.69E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**3.69E-06**			**0.00E+00**	
100-D-65	100-D-65_Shallow	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	5.53%
100-D-65	100-D-65_Shallow	7439-98-7	Molybdenum	Non-Rad	0.539	--	-	-	4.00E+02	1.35E-03	91.79%
100-D-65	100-D-65_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	3.68	--	-	-	1.28E+05	2.88E-05	1.96%
100-D-65	100-D-65_Shallow	83-32-9	Acenaphthene	Non-Rad	0.00801	--	-	-	4.80E+03	1.67E-06	0.11%
100-D-65	100-D-65_Shallow	208-96-8	Acenaphthylene	Non-Rad	0.00266	--	-	-	--	-	-
100-D-65	100-D-65_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0035	1.37E+00	2.56E-09	4.42%	--	-	-
100-D-65	100-D-65_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.00586	1.37E-01	4.28E-08	73.95%	--	-	-
100-D-65	100-D-65_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.00514	1.37E+00	3.75E-09	6.49%	--	-	-
100-D-65	100-D-65_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.00329	--	-	-	--	-	-
100-D-65	100-D-65_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.00301	1.37E+00	2.20E-09	3.80%	--	-	-
100-D-65	100-D-65_Shallow	218-01-9	chrysene	Non-Rad	0.00768	1.37E+01	5.61E-10	0.97%	--	-	-
100-D-65	100-D-65_Shallow	86-73-7	Fluorene	Non-Rad	0.002	--	-	-	3.20E+03	6.25E-07	0.04%
100-D-65	100-D-65_Shallow	206-44-0	fluoranthene	Non-Rad	0.00957	--	-	-	3.20E+03	2.99E-06	0.20%
100-D-65	100-D-65_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.00823	1.37E+00	6.01E-09	10.39%	-	-	-
100-D-65	100-D-65_Shallow	91-20-3	Naphthalene	Non-Rad	0.00516	--	-	-	1.60E+03	3.23E-06	0.22%
100-D-65	100-D-65_Shallow	85-01-8	Phenanthrene	Non-Rad	0.00541	--	-	-	--	-	-
100-D-65	100-D-65_Shallow	129-00-0	Pyrene	Non-Rad	0.00487	--	-	-	2.40E+03	2.03E-06	0.14%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.79E-08**			**1.47E-03**	
Total Non-Radiological and Radiological Risk Estimate							**3.75E-06**			**1.47E-03**	
100-D-65	100-D-65_Sediment	10045-97-3	Cesium-137	Rad	0.0444	4.40E+00	1.01E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.01E-06**				
100-D-65	100-D-65_Sediment	7440-42-8	Boron	Non-Rad	3.6	--	-	-	1.60E+04	2.25E-04	0.25%
100-D-65	100-D-65_Sediment	7440-47-3	Chromium	Non-Rad	44.2	--	-	-	1.20E+05	3.68E-04	0.40%
100-D-65	100-D-65_Sediment	7440-50-8	Copper	Non-Rad	30.2	--	-	-	3.20E+03	9.44E-03	10.34%
100-D-65	100-D-65_Sediment	18540-29-9	Hexavalent Chromium	Non-Rad	0.953	--	-	-	2.40E+02	3.97E-03	4.35%
100-D-65	100-D-65_Sediment	7439-92-1	Lead	Non-Rad	11	--	-	-	-	-	-
100-D-65	100-D-65_Sediment	7439-96-5	Manganese	Non-Rad	639	--	-	-	1.12E+04	5.71E-02	62.52%
100-D-65	100-D-65_Sediment	7439-97-6	Mercury	Non-Rad	0.011	--	-	-	2.40E+01	4.58E-04	0.50%
100-D-65	100-D-65_Sediment	7439-98-7	Molybdenum	Non-Rad	0.8	--	-	-	4.00E+02	2.00E-03	2.19%
100-D-65	100-D-65_Sediment	7440-02-0	Nickel	Non-Rad	21.9	--	-	-	1.60E+03	1.37E-02	15.00%
100-D-65	100-D-65_Sediment	7440-66-6	Zinc	Non-Rad	96.1	--	-	-	2.40E+04	4.00E-03	4.39%
100-D-65	100-D-65_Sediment	83-32-9	Acenaphthene	Non-Rad	0.23	--	-	-	4.80E+03	4.79E-05	0.05%
100-D-65	100-D-65_Sediment	56-55-3	Benzo(a)anthracene	Non-Rad	0.0059	1.37E+00	4.31E-09	4.92%	--	-	-
100-D-65	100-D-65_Sediment	50-32-8	Benzo(a)pyrene	Non-Rad	0.0095	1.37E-01	6.94E-08	79.20%	--	-	-
100-D-65	100-D-65_Sediment	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0091	1.37E+00	6.64E-09	7.59%	--	-	-
100-D-65	100-D-65_Sediment	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0089	1.37E+00	6.50E-09	7.42%	--	-	-
100-D-65	100-D-65_Sediment	218-01-9	chrysene	Non-Rad	0.009	1.37E+01	6.57E-10	0.75%	--	-	-
100-D-65	100-D-65_Sediment	86-73-7	Fluorene	Non-Rad	0.0085	--	-	-	3.20E+03	2.66E-06	0.00%
100-D-65	100-D-65_Sediment	131-11-3	Dimethyl phthalate	Non-Rad	0.36	--	-	-	--	-	-
100-D-65	100-D-65_Sediment	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00033	2.94E+00	1.12E-10	0.13%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.76E-08**			**9.13E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.10E-06**			**9.13E-02**	
100-D-66	100-D-66_Shallow	14762-75-5	Carbon-14	Rad	1.2	8.10E+01	1.48E-06	7.36%	--	-	-
100-D-66	100-D-66_Shallow	14683-23-9	Europium-152	Rad	0.565	3.66E+00	1.54E-05	76.71%	--	-	-
100-D-66	100-D-66_Shallow	15585-10-1	Europium-154	Rad	0.059	4.40E+00	1.34E-06	6.66%	--	-	-
100-D-66	100-D-66_Shallow	13981-37-8	Nickel-63	Rad	5.66	6.08E+02	9.31E-07	4.63%	--	-	-
100-D-66	100-D-66_Shallow	13981-16-3	Plutonium-238	Rad	0.135	2.36E+02	5.72E-08	0.28%	--	-	-
100-D-66	100-D-66_Shallow	PU-239/240	Plutonium-239/240	Rad	0.659	2.03E+02	3.25E-07	1.61%	--	-	-
100-D-66	100-D-66_Shallow	10028-17-8	Tritium	Rad	3.43	6.23E+02	5.51E-07	2.74%	--	-	-
Total Radiological Risk Estimate							**2.01E-05**				
100-D-66	100-D-66_Shallow	7440-42-8	Boron	Non-Rad	1.12	--	-	-	1.60E+04	7.00E-05	2.16%
100-D-66	100-D-66_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.43	--	-	-	2.40E+02	1.79E-03	55.35%
100-D-66	100-D-66_Shallow	7439-98-7	Molybdenum	Non-Rad	0.461	--	-	-	4.00E+02	1.15E-03	35.61%
100-D-66	100-D-66_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	22.3	--	-	-	1.28E+05	1.74E-04	5.38%
100-D-66	100-D-66_Shallow	83-32-9	Acenaphthene	Non-Rad	0.019	--	-	-	4.80E+03	3.96E-06	0.12%
100-D-66	100-D-66_Shallow	208-96-8	Acenaphthylene	Non-Rad	0.0445	--	-	-	--	-	-
100-D-66	100-D-66_Shallow	120-12-7	Anthracene	Non-Rad	0.0108	--	-	-	2.40E+04	4.50E-07	0.01%
100-D-66	100-D-66_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0284	1.37E+00	2.07E-08	10.36%	--	-	-
100-D-66	100-D-66_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0174	1.37E-01	1.27E-07	63.45%	--	-	-
100-D-66	100-D-66_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0154	1.37E+00	1.12E-08	5.62%	--	-	-
100-D-66	100-D-66_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0127	--	-	-	--	-	-
100-D-66	100-D-66_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0289	1.37E+00	2.11E-08	10.54%	--	-	-
100-D-66	100-D-66_Shallow	218-01-9	chrysene	Non-Rad	0.111	1.37E+01	8.10E-09	4.05%	--	-	-
100-D-66	100-D-66_Shallow	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.00674	1.37E+00	4.92E-09	2.46%	--	-	-
100-D-66	100-D-66_Shallow	206-44-0	fluoranthene	Non-Rad	0.0387	-	-	-	3.20E+03	1.21E-05	0.37%
100-D-66	100-D-66_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.00969	1.37E+00	7.07E-09	3.53%	-	-	-
100-D-66	100-D-66_Shallow	91-20-3	Naphthalene	Non-Rad	0.0293	--	-	-	1.60E+03	1.83E-05	0.57%
100-D-66	100-D-66_Shallow	85-01-8	Phenanthrene	Non-Rad	0.0469	--	-	-	--	-	-
100-D-66	100-D-66_Shallow	129-00-0	Pyrene	Non-Rad	0.0328	--	-	-	2.40E+03	1.37E-05	0.42%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.00E-07**			**3.24E-03**	
Total Non-Radiological and Radiological Risk Estimate							**2.03E-05**				
100-D-66	100-D-66_SPA	14762-75-5	Carbon-14	Rad	1.54	8.10E+01	1.90E-06	19.07%	--	-	-
	100-D-66_SPA	10198-40-0	Cobalt-60	Rad	0.017	3.10E+00	5.48E-07	5.50%			
100-D-66	100-D-66_SPA	14683-23-9	Europium-152	Rad	0.231	3.66E+00	6.31E-06	63.31%	--	-	-
100-D-66	100-D-66_SPA	15585-10-1	Europium-154	Rad	0.045	4.40E+00	1.02E-06	10.26%	--	-	-
100-D-66	100-D-66_SPA	13981-37-8	Nickel-63	Rad	1.13	6.08E+02	1.86E-07	1.86%	--	-	-
Total Radiological Risk Estimate							**9.97E-06**				
100-D-66	100-D-66_SPA	7440-42-8	Boron	Non-Rad	1.16	--	-	-	1.60E+04	7.25E-05	1.56%
100-D-66	100-D-66_SPA	7439-98-7	Molybdenum	Non-Rad	0.365	--	-	-	4.00E+02	9.13E-04	19.66%
100-D-66	100-D-66_SPA	7440-02-0	Nickel	Non-Rad	5.6	--	-	-	1.60E+03	3.50E-03	75.40%
100-D-66	100-D-66_SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	17.4	--	-	-	1.28E+05	1.36E-04	2.93%
100-D-66	100-D-66_SPA	83-32-9	Acenaphthene	Non-Rad	0.0114	--	-	-	4.80E+03	2.38E-06	0.05%
100-D-66	100-D-66_SPA	208-96-8	Acenaphthylene	Non-Rad	1.32	--	-	-	--	-	-
100-D-66	100-D-66_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.00581	1.37E+00	4.24E-09	4.43%	--	-	-
100-D-66	100-D-66_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.0105	1.37E-01	7.67E-08	80.07%	--	-	-
100-D-66	100-D-66_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.00472	1.37E+00	3.45E-09	3.60%	--	-	-
100-D-66	100-D-66_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.00394	--	-	-	--	-	-
100-D-66	100-D-66_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.00451	1.37E+00	3.29E-09	3.44%	--	-	-
100-D-66	100-D-66_SPA	218-01-9	chrysene	Non-Rad	0.0072	1.37E+01	5.26E-10	0.55%	--	-	-
100-D-66	100-D-66_SPA	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.00674	1.37E+00	4.92E-09	5.14%	--	-	-

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-66	100-D-66_SPA	86-73-7	Fluorene	Non-Rad	0.00978			0.00%			0.00%
100-D-66	100-D-66_SPA	206-44-0	fluoranthene	Non-Rad	0.00951	--	-	-	3.20E+03	2.97E-06	0.06%
100-D-66	100-D-66_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.00363	1.37E+00	2.65E-09	2.77%	--	-	-
100-D-66	100-D-66_SPA	91-20-3	Naphthalene	Non-Rad	0.0203	--	-	-	1.60E+03	1.27E-05	0.27%
100-D-66	100-D-66_SPA	85-01-8	Phenanthrene	Non-Rad	0.0155	--	-	-	--	-	-
100-D-66	100-D-66_SPA	129-00-0	Pyrene	Non-Rad	0.00755	--	-	-	2.40E+03	3.15E-06	0.07%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.57E-08**			**4.64E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.01E-05**				
100-D-66	100-D-66_Shoreline segment	14762-75-5	Carbon-14	Rad	17	8.10E+01	2.10E-05	104.30%	--	-	-
100-D-66	100-D-66_Shoreline segment	14681-23-9	Europium-152	Rad	0.639	3.66E+00	1.75E-05	86.76%	--	-	-
100-D-66	100-D-66_Shoreline segment	13981-37-8	Nickel-63	Rad	26.7	6.08E+02	4.39E-06	21.82%	--	-	-
100-D-66	100-D-66_Shoreline segment	10098-97-2	Strontium-90	Rad	0.237	2.27E+00	1.04E-05	51.88%	--	-	-
100-D-66	100-D-66_Shoreline segment	10028-17-8	Tritium	Rad	0.101	6.23E+02	1.62E-08	0.08%	--	-	-
Total Radiological Risk Estimate							**5.33E-05**				
100-D-66	100-D-66_Shoreline segment	7440-39-3	Barium	Non-Rad	139	--	-	-	1.60E+04	8.69E-03	49.24%
100-D-66	100-D-66_Shoreline segment	7440-47-3	Chromium	Non-Rad	48.5	--	-	-	1.20E+05	4.04E-04	2.29%
100-D-66	100-D-66_Shoreline segment	18540-29-9	Hexavalent Chromium	Non-Rad	1.9	--	-	-	2.40E+02	7.92E-03	44.87%
100-D-66	100-D-66_Shoreline segment	7439-92-1	Lead	Non-Rad	14	--	-	-	--	-	-
100-D-66	100-D-66_Shoreline segment	ND2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	4.8	--	-	-	1.28E+05	3.75E-05	0.21%
100-D-66	100-D-66_Shoreline segment	83-32-9	Acenaphthene	Non-Rad	0.27	--	-	-	4.80E+03	5.63E-05	0.32%
100-D-66	100-D-66_Shoreline segment	56-55-3	Benzo(a)anthracene	Non-Rad	0.99	1.37E+00	7.23E-07	6.82%	--	-	-
100-D-66	100-D-66_Shoreline segment	50-32-8	Benzo(a)pyrene	Non-Rad	1.1	1.37E-01	8.03E-06	75.76%	--	-	-
100-D-66	100-D-66_Shoreline segment	205-99-2	Benzo(b)fluoranthene	Non-Rad	1.1	1.37E+00	8.03E-07	7.58%	--	-	-
100-D-66	100-D-66_Shoreline segment	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.65	1.37E+00	4.75E-07	4.48%	--	-	-
100-D-66	100-D-66_Shoreline segment	218-01-9	chrysene	Non-Rad	1	1.37E+01	7.30E-08	0.69%	--	-	-
100-D-66	100-D-66_Shoreline segment	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.11	1.37E+00	8.03E-08	0.76%	--	-	-
100-D-66	100-D-66_Shoreline segment	206-44-0	fluoranthene	Non-Rad	0.56	--	-	-	3.20E+03	1.75E-04	0.99%
100-D-66	100-D-66_Shoreline segment	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.57	1.37E+00	4.16E-07	3.93%	--	-	-
100-D-66	100-D-66_Shoreline segment	85-01-8	Phenanthrene	Non-Rad	0.026	--	-	-	--	-	-
100-D-66	100-D-66_Shoreline segment	129-00-0	Pyrene	Non-Rad	0.88	--	-	-	2.40E+03	3.67E-04	2.08%
100-D-66	100-D-66_Shoreline segment	131-11-3	Dimethyl phthalate	Non-Rad	0.0469	--	-	-	--	-	-
100-D-66	100-D-66_Shoreline segment	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00097	2.94E+00	3.30E-10	0.00%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.06E-05**			**1.76E-02**	
Total Non-Radiological and Radiological Risk Estimate							**6.39E-05**				
100-D-69	100-D-69_Shallow&SPA	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	99.08%
100-D-69	100-D-69_Shallow&SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.4	--	-	-	2.40E+02	1.67E-07	0.18%
100-D-69	100-D-69_Shallow&SPA	7439-98-7	Molybdenum	Non-Rad	2.8	--	-	-	4.00E+02	7.00E-07	0.74%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**9.46E-05**	
100-D-72_OB	100-D-72_OB	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	99.49%
100-D-72_OB	100-D-72_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.255	--	-	-	2.40E+02	1.06E-07	0.11%
100-D-72_OB	100-D-72_OB	7439-98-7	Molybdenum	Non-Rad	1.6	--	-	-	4.00E+02	4.00E-07	0.40%
100-D-72_OB	100-D-72_OB	ND2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	4.6	--	-	-	1.28E+05	3.59E-09	0.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.01E-04**	
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	2.25%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.528	--	-	-	2.40E+02	2.20E-03	72.13%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	7439-98-7	Molybdenum	Non-Rad	0.31	--	-	-	4.00E+02	7.75E-04	25.41%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_Shallow	75-09-2	Methylene Chloride	Non-Rad	0.0031	5.00E+02	6.20E-12	100.00%	4.80E+02	6.46E-06	0.21%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.20E-12**			**3.05E-03**	
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	0.03%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.263	--	-	-	2.40E+02	1.10E-03	0.47%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	0.32%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	7440-62-2	Vanadium	Non-Rad	92.3	--	-	-	4.00E+02	2.31E-01	99.16%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.068	7.14E+01	9.52E-10	100.00%	1.60E+03	4.25E-05	0.02%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB	131-11-3	Dimethyl phthalate	Non-Rad	0.38	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.52E-10**			**2.33E-01**	
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	7440-39-3	Barium	Non-Rad	238	--	-	-	1.60E+04	1.49E-02	78.34%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	7440-42-8	Boron	Non-Rad	15.5	--	-	-	1.60E+04	9.69E-04	5.10%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.275	--	-	-	2.40E+02	1.15E-03	6.03%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	7439-98-7	Molybdenum	Non-Rad	0.77	--	-	-	4.00E+02	1.93E-03	10.14%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.058	1.37E-01	4.23E-07	85.55%	--	-	-
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.096	1.37E+00	7.01E-08	14.16%	--	-	-
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.103	7.14E+01	1.44E-09	0.29%	1.60E+03	6.44E-05	0.34%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_SPA	129-00-0	Pyrene	Non-Rad	0.019	--	-	-	2.40E+03	7.92E-06	0.04%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.95E-07**			**1.90E-02**	
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB Lift 1	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	2.93%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB Lift 1	7439-98-7	Molybdenum	Non-Rad	0.293	--	-	-	4.00E+02	7.33E-04	31.26%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.37	--	-	-	2.40E+02	1.54E-03	65.80%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.34E-03**	
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB Lift 2	7439-98-7	Molybdenum	Non-Rad	0.36	--	-	-	4.00E+02	9.00E-04	54.41%
100-D-73 and 100-D-76	100-D-73 and 100-D-76_OB Lift 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.181	--	-	-	2.40E+02	7.54E-04	45.59%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.65E-03**	
100-D-75:1	100-D-75:1_Shallow	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	89.45%
100-D-75:1	100-D-75:1_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	12	--	-	-	--	-	-
100-D-75:1	100-D-75:1_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	21	--	-	-	--	-	-
100-D-75:1	100-D-75:1_Shallow	85-01-8	Phenanthrene	Non-Rad	0.019	--	-	-	--	-	-
100-D-75:1	100-D-75:1_Shallow	129-00-0	Pyrene	Non-Rad	0.023	--	-	-	2.40E+03	9.58E-06	10.55%
100-D-75:1	100-D-75:1_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.046	5.00E-01	9.20E-08	100.00%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.20E-08**			**9.08E-05**	
100-D-75:1	100-D-75:1_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	2.7	--	-	-	--	-	-
100-D-75:1	100-D-75:1_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	3	--	-	-	--	-	-
100-D-75:1	100-D-75:1_SPA	11096-82-5	Aroclor-1260	Non-Rad	0.003	5.00E-01	6.00E-09	6.52%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.00E-09**			**0.00E+00**	
100-D-75:2	100-D-75:2_Shallow	7440-42-8	Boron	Non-Rad	3.23	--	-	-	1.60E+04	2.02E-04	0.70%
100-D-75:2	100-D-75:2_Shallow	7440-43-9	Cadmium	Non-Rad	0.991	--	-	-	8.00E+01	1.24E-02	43.09%
100-D-75:2	100-D-75:2_Shallow	7440-50-8	Copper	Non-Rad	24	--	-	-	3.20E+03	7.50E-03	26.09%
100-D-75:2	100-D-75:2_Shallow	7439-92-1	Lead	Non-Rad	89.2	--	-	-	--	-	-
100-D-75:2	100-D-75:2_Shallow	7439-98-7	Molybdenum	Non-Rad	1.12	--	-	-	4.00E+02	2.80E-03	9.74%
100-D-75:2	100-D-75:2_Shallow	7440-66-6	Zinc	Non-Rad	140	--	-	-	2.40E+04	5.83E-03	20.29%
100-D-75:2	100-D-75:2_Shallow	TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	Non-Rad	6.8	--	-	-	--	-	-
100-D-75:2	100-D-75:2_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.00598	1.37E+00	4.37E-09	3.86%	--	-	-
100-D-75:2	100-D-75:2_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.00484	1.37E-01	3.53E-08	31.28%	--	-	-
100-D-75:2	100-D-75:2_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0169	1.37E+00	1.23E-08	10.92%	--	-	-
100-D-75:2	100-D-75:2_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.00483	--	-	-	--	-	-
100-D-75:2	100-D-75:2_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.00886	1.37E+00	6.47E-09	5.73%	--	-	-
100-D-75:2	100-D-75:2_Shallow	218-01-9	Chrysene	Non-Rad	0.02	1.37E+01	1.46E-09	1.29%	--	-	-
100-D-75:2	100-D-75:2_Shallow	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.000812	1.37E+00	5.93E-10	0.52%	--	-	-
100-D-75:2	100-D-75:2_Shallow	206-44-0	Fluoranthene	Non-Rad	0.0379	--	-	-	3.20E+03	1.18E-05	0.04%
100-D-75:2	100-D-75:2_Shallow	129-00-0	pyrene	Non-Rad	0.0336	--	-	-	2.40E+03	1.40E-05	0.05%
100-D-75:2	100-D-75:2_Shallow	85-01-8	Phenanthrene	Non-Rad	0.039	--	-	-	--	-	-
100-D-75:2	100-D-75:2_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.0262	5.00E-01	5.24E-08	46.39%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.13E-07**			**2.87E-02**	
100-D-78	100-D-78 Shallow	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	3.04%
100-D-78	100-D-78 Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.341	--	-	-	2.40E+02	1.42E-03	57.50%
100-D-78	100-D-78 Shallow	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	32.38%
100-D-78	100-D-78 Shallow	NO2-N	Nitrogen in Nitrite	Non-Rad	1.4	--	-	-	8.00E+03	1.75E-04	7.08%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.47E-03**	
100-D-78	100-D-78 SPA	7440-42-8	Boron	Non-Rad	3.3	--	-	-	1.60E+04	2.06E-04	6.55%
100-D-78	100-D-78 SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.341	--	-	-	2.40E+02	1.42E-03	45.15%
100-D-78	100-D-78 SPA	7439-98-7	Molybdenum	Non-Rad	0.36	--	-	-	4.00E+02	9.00E-04	28.60%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-78	100-D-78 SPA	NO2+NO3-N	Nitrogen in Nitrite and nitrate	Non-Rad	79.3	--	-	-	1.28E+05	6.20E-04	19.69%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.15E-03**	
100-D-81	100-D-81 Shallow	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	3.85%
100-D-81	100-D-81 Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.394	--	-	-	2.40E+02	1.64E-03	67.41%
100-D-81	100-D-81 Shallow	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	28.74%
100-D-81	100-D-81 Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	7.8	--	-	-	--	-	-
100-D-81	100-D-81 Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	13	--	-	-	--	-	-
100-D-81	100-D-81 Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0098	1.37E-01	7.15E-08	93.72%	--	-	-
100-D-81	100-D-81 Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.006	1.37E+00	4.38E-09	5.74%	--	-	-
100-D-81	100-D-81 Shallow	218-01-9	Chrysene	Non-Rad	0.0057	1.37E+01	4.16E-10	0.55%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**7.63E-08**			**2.44E-03**	
100-D-83:3	100-D-83:3 Shallow	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	3.17%
100-D-83:3	100-D-83:3 Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.389	--	-	-	2.40E+02	1.62E-03	63.19%
100-D-83:3	100-D-83:3 Shallow	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	31.19%
100-D-83:3	100-D-83:3 Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.078	1.37E+00	5.69E-08	7.89%	--	-	-
100-D-83:3	100-D-83:3 Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.071	1.37E-01	5.18E-07	71.86%	--	-	-
100-D-83:3	100-D-83:3 Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.094	1.37E+00	6.86E-08	9.51%	--	-	-
100-D-83:3	100-D-83:3 Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.042	--	-	-	--	-	-
100-D-83:3	100-D-83:3 Shallow	218-01-9	Chrysene	Non-Rad	0.09	1.37E+01	6.57E-09	0.91%	--	-	-
100-D-83:3	100-D-83:3 Shallow	131-11-3	Dimethyl phthalate	Non-Rad	0.038	--	-	-	--	-	-
100-D-83:3	100-D-83:3 Shallow	206-44-0	Fluoranthene	Non-Rad	0.14	--	-	-	3.20E+03	4.38E-05	1.71%
100-D-83:3	100-D-83:3 Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.097	1.37E+00	7.08E-08	9.82%	--	-	-
100-D-83:3	100-D-83:3 Shallow	85-01-8	Phenanthrene	Non-Rad	0.07	--	-	-	--	-	-
100-D-83:3	100-D-83:3 Shallow	129-00-0	Pyrene	Non-Rad	0.046	--	-	-	2.40E+03	1.92E-05	0.75%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**7.21E-07**			**2.57E-03**	
100-D-83:3	100-D-83:3_OB	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	2.86%
100-D-83:3	100-D-83:3_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.399	--	-	-	2.40E+02	1.66E-03	63.41%
100-D-83:3	100-D-83:3_OB	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	30.51%
100-D-83:3	100-D-83:3_OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.061	1.37E+00	4.45E-08	9.27%	--	-	-
100-D-83:3	100-D-83:3_OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.047	1.37E-01	3.43E-07	71.44%	--	-	-
100-D-83:3	100-D-83:3_OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.09	1.37E+00	6.57E-08	13.68%	--	-	-
100-D-83:3	100-D-83:3_OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.028	--	-	-	--	-	-
100-D-83:3	100-D-83:3_OB	218-01-9	Chrysene	Non-Rad	0.069	1.37E+01	5.04E-09	1.05%	--	-	-
100-D-83:3	100-D-83:3_OB	131-11-3	Dimethyl phthalate	Non-Rad	0.04	--	-	-	--	-	-
100-D-83:3	100-D-83:3_OB	206-44-0	Fluoranthene	Non-Rad	0.11	--	-	-	3.20E+03	3.44E-05	1.31%
100-D-83:3	100-D-83:3_OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.03	1.37E+00	2.19E-08	4.56%	--	-	-
100-D-83:3	100-D-83:3_OB	85-01-8	Phenanthrene	Non-Rad	0.063	--	-	-	--	-	-
100-D-83:3	100-D-83:3_OB	129-00-0	Pyrene	Non-Rad	0.12	--	-	-	2.40E+03	5.00E-05	1.91%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.80E-07**			**2.62E-03**	
100-D-83:3	100-D-83:3_SPA	7440-42-8	Boron	Non-Rad	3.6	--	-	-	1.60E+04	2.25E-04	5.15%
100-D-83:3	100-D-83:3_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.534	--	-	-	2.40E+02	2.23E-03	50.97%
100-D-83:3	100-D-83:3_SPA	7439-92-1	lead	Non-Rad	78.1	--	-	-			0.00%
100-D-83:3	100-D-83:3_SPA	7439-98-7	Molybdenum	Non-Rad	0.75	--	-	-	4.00E+02	1.88E-03	42.96%
100-D-83:3	100-D-83:3_SPA	7782-49-2	Selenium	Non-Rad	1.9						0.00%
100-D-83:3	100-D-83:3_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.025	1.37E+00	1.83E-08	6.88%	--	-	-
100-D-83:3	100-D-83:3_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.023	1.37E-01	1.68E-07	63.26%	--	-	-
100-D-83:3	100-D-83:3_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.036	1.37E+00	2.63E-08	9.90%	--	-	-
100-D-83:3	100-D-83:3_SPA	218-01-9	Chrysene	Non-Rad	0.036	1.37E+01	2.63E-09	0.99%	--	-	-
100-D-83:3	100-D-83:3_SPA	206-44-0	Fluoranthene	Non-Rad	0.06	--	-	-	3.20E+03	1.88E-05	0.43%
100-D-83:3	100-D-83:3_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.069	1.37E+00	5.04E-08	18.98%	--	-	-
100-D-83:3	100-D-83:3_SPA	85-01-8	Phenanthrene	Non-Rad	0.053	--	-	-	--	-	-
100-D-83:3	100-D-83:3_SPA	129-00-0	Pyrene	Non-Rad	0.051	--	-	-	2.40E+03	2.13E-05	0.49%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.65E-07**			**4.37E-03**	
100-D-83:5	100-D-83:5-West_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.197	--	-	-	2.40E+02	8.21E-04	0.14%
100-D-83:5	100-D-83:5-West_Shallow	7439-92-1	Lead	Non-Rad	44.3	--	-	-	--	-	-
100-D-83:5	100-D-83:5-West_Shallow	7439-97-6	Mercury	Non-Rad	14.5	--	-	-	2.40E+01	6.04E-01	99.84%
100-D-83:5	100-D-83:5-West_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	15.6	--	-	-	1.28E+05	1.22E-04	0.02%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**6.05E-01**	
100-D-83:5	100-D-83:5-East_Shallow	7440-42-8	Boron	Non-Rad	3.4	--	-	-	1.60E+04	2.13E-04	8.95%
100-D-83:5	100-D-83:5-East_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.375	--	-	-	2.40E+02	1.56E-03	65.79%
100-D-83:5	100-D-83:5-East_Shallow	7439-98-7	Molybdenum	Non-Rad	0.24	--	-	-	4.00E+02	6.00E-04	25.26%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.38E-03**	
100-D-83:5	100-D-83:5_OB	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	5.96%
100-D-83:5	100-D-83:5_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.198	--	-	-	2.40E+02	8.25E-04	71.51%
100-D-83:5	100-D-83:5_OB	7439-98-7	Molybdenum	Non-Rad	0.061	--	-	-	4.00E+02	1.53E-04	13.22%
100-D-83:5	100-D-83:5_OB	NO2-N	Nitrogen in Nitrite	Non-Rad	0.86	--	-	-	8.00E+03	1.08E-04	9.32%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.15E-03**	
100-D-83:5	100-D-83:5_SPA_4	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	2.98%
100-D-83:5	100-D-83:5_SPA_4	18540-29-9	Hexavalent Chromium	Non-Rad	0.226	--	-	-	2.40E+02	9.42E-04	29.92%
100-D-83:5	100-D-83:5_SPA_4	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	64.34%
100-D-83:5	100-D-83:5_SPA_4	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	11.1	--	-	-	1.28E+05	8.67E-05	2.76%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.15E-03**	
100-D-83:5	100-D-83:5_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.197	--	-	-	2.40E+02	8.21E-04	0.33%
100-D-83:5	100-D-83:5_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.37	--	-	-	4.00E+02	9.25E-04	0.38%
100-D-83:5	100-D-83:5_Shallow Focused	7440-62-2	Vanadium	Non-Rad	97.9	--	-	-	4.00E+02	2.45E-01	99.29%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.46E-01**	
100-D-84:2	100-D-84:2_Area 3_Shallow	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-05	3.03%
100-D-84:2	100-D-84:2_Area 3_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.335	--	-	-	2.40E+02	1.40E-03	48.37%
100-D-84:2	100-D-84:2_Area 3_Shallow	7439-98-7	Molybdenum	Non-Rad	0.55	--	-	-	4.00E+02	1.38E-03	47.65%
100-D-84:2	100-D-84:2_Area 3_Shallow	7782-49-2	Selenium	Non-Rad	0.88	--	-	-			0.00%
100-D-84:2	100-D-84:2_Area 3_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.027	1.37E+00	1.97E-08	42.52%	--	-	-
100-D-84:2	100-D-84:2_Area 3_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.033	1.37E+00	2.41E-08	51.97%	--	-	-
100-D-84:2	100-D-84:2_Area 3_Shallow	218-01-9	Chrysene	Non-Rad	0.035	1.37E+01	2.56E-09	5.51%	--	-	-
100-D-84:2	100-D-84:2_Area 3_Shallow	206-44-0	Fluoranthene	Non-Rad	0.052	--	-	-	3.20E+03	1.63E-05	0.56%
100-D-84:2	100-D-84:2_Area 3_Shallow	85-01-8	Phenanthrene	Non-Rad	0.017	--	-	-			-
100-D-84:2	100-D-84:2_Area 3_Shallow	129-00-0	Pyrene	Non-Rad	0.027	--	-	-	2.40E+03	1.13E-05	0.39%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.64E-08**			**2.89E-03**	
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-39-3	Barium	Non-Rad	146	--	-	-	1.60E+04	9.13E-03	84.65%
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7440-42-8	Boron	Non-Rad	10.4	--	-	-	1.60E+04	6.50E-04	6.03%
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.38	--	-	-	4.00E+02	9.50E-04	8.81%
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	5.5	--	-	-	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	12	--	-	-	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	56-55-3	Benzo(a)anthracene	Non-Rad	0.026	1.37E+00	1.90E-08	8.65%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.022	1.37E-01	1.61E-07	73.18%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.028	1.37E+00	2.04E-08	9.31%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0076	1.37E+00	5.55E-09	2.53%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	191-24-2	Benzo(ghi)perylene	Non-Rad	0.019	--	-	-	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	218-01-9	Chrysene	Non-Rad	0.025	1.37E+01	1.83E-09	0.83%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	206-44-0	Fluoranthene	Non-Rad	0.047	--	-	-	3.20E+03	1.47E-05	0.14%
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.015	1.37E+00	1.10E-08	4.99%	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	85-01-8	Phenanthrene	Non-Rad	0.02	--	-	-	--	-	-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	129-00-0	Pyrene	Non-Rad	0.046	--	-	-	2.40E+03	1.92E-05	0.18%
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0024	2.94E+00	8.16E-10	0.37%			-
100-D-84:2	100-D-84:2_Area 4_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.00085	2.94E+00	2.89E-10	0.13%	4.00E+01	2.13E-05	0.20%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.19E-07**			**1.08E-02**	
100-D-84:2	100-D-84:2_Area 4_SPA	7440-42-8	Boron	Non-Rad	2.1	--	-	-	1.60E+04	1.31E-04	4.55%
100-D-84:2	100-D-84:2_Area 4_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.26	--	-	-	2.40E+02	1.08E-03	37.54%
100-D-84:2	100-D-84:2_Area 4_SPA	7439-98-7	Molybdenum	Non-Rad	0.46	--	-	-	4.00E+02	1.15E-03	39.85%
100-D-84:2	100-D-84:2_Area 4_SPA	NO2+NO3-N	Nitrogen in nitrite and nitrate	Non-Rad	13.1	--	-	-			0.00%
100-D-84:2	100-D-84:2_Area 4_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.022	1.37E+00	1.61E-08	34.65%	--	-	-
100-D-84:2	100-D-84:2_Area 4_SPA	206-44-0	Fluoranthene	Non-Rad	0.039	--	-	-	3.20E+03	1.22E-05	0.42%
100-D-84:2	100-D-84:2_Area 4_SPA	129-00-0	Pyrene	Non-Rad	0.034	--	-	-	2.40E+03	1.42E-05	0.49%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.61E-08**			**2.39E-03**	
100-D-85:2	100-D-85:2_Shallow	14683-23-9	Europium-152	Rad	0.04	3.66E+00	1.09E-06	10.21%	--	-	-
100-D-85:2	100-D-85:2_Shallow	15585-10-1	Europium-154	Rad	0.0468	4.40E+00	1.06E-06	9.94%	--	-	-
100-D-85:2	100-D-85:2_Shallow	SR-RAD	Total beta radiostrontium	Rad	0.194	2.27E+00	8.55E-06	79.85%	--	-	-
Total Radiological Risk Estimate							**1.07E-05**				
100-D-85:2	100-D-85:2_Shallow	7440-42-8	Boron	Non-Rad	0.9	--	-	-	1.60E+04	5.63E-05	0.10%
100-D-85:2	100-D-85:2_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.18	--	-	-	2.40E+02	7.50E-04	1.33%
100-D-85:2	100-D-85:2_Shallow	7439-98-7	Molybdenum	Non-Rad	0.25	--	-	-	4.00E+02	6.25E-04	1.11%
100-D-85:2	100-D-85:2_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.088	5.00E-01	1.76E-07	100.00%	1.60E+00	5.50E-02	97.46%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.76E-07**			**5.64E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.09E-05**			**5.64E-02**	
100-D-85:2	100-D-85:2_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.282	--	-	-	2.40E+02	1.18E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.18E-03**	
100-D-86:1	100-D-86:1_Shallow	10098-97-2	Strontium-90	Rad	0.232	2.27E+00	1.02E-05	100.00%	--	-	-
Total Radiological Risk Estimate							**1.02E-05**			**0.00E+00**	
100-D-86:1	100-D-86:1_Shallow	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	0.14%
100-D-86:1	100-D-86:1_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.268	--	-	-	2.40E+02	1.12E-03	2.05%
100-D-86:1	100-D-86:1_Shallow	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	1.47%
100-D-86:1	100-D-86:1_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	78	--	-	-	--	-	-
100-D-86:1	100-D-86:1_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	19	--	-	-	--	-	-
100-D-86:1	100-D-86:1_Shallow	83-32-9	Acenaphthene	Non-Rad	0.014	--	-	-	4.80E+03	2.92E-06	0.01%
100-D-86:1	100-D-86:1_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.042	1.37E+00	3.07E-08	6.15%	--	-	-
100-D-86:1	100-D-86:1_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.032	1.37E-01	2.34E-07	46.83%	--	-	-
100-D-86:1	100-D-86:1_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.024	1.37E+00	1.75E-08	3.51%	--	-	-
100-D-86:1	100-D-86:1_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.014	--	-	-	--	-	-
100-D-86:1	100-D-86:1_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.011	1.37E+00	8.03E-09	1.61%	--	-	-
100-D-86:1	100-D-86:1_Shallow	218-01-9	chrysene	Non-Rad	0.046	1.37E+01	3.36E-09	0.67%	--	-	-
100-D-86:1	100-D-86:1_Shallow	206-44-0	fluoranthene	Non-Rad	0.093	--	-	-	3.20E+03	2.91E-05	0.05%
100-D-86:1	100-D-86:1_Shallow	86-73-7	fluorene	Non-Rad	0.014	--	-	-	3.20E+03	4.38E-06	0.01%
100-D-86:1	100-D-86:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.016	1.37E+00	1.17E-08	2.34%	--	-	-
100-D-86:1	100-D-86:1_Shallow	85-01-8	Phenanthrene	Non-Rad	0.076	--	-	-	--	-	-
100-D-86:1	100-D-86:1_Shallow	129-00-0	Pyrene	Non-Rad	0.11	--	-	-	2.40E+03	4.58E-05	0.08%
100-D-86:1	100-D-86:1_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.084	5.00E-01	1.68E-07	33.68%	1.60E+00	5.25E-02	96.20%
100-D-86:1	100-D-86:1_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.013	5.00E-01	2.60E-08	5.21%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.99E-07**			**5.46E-02**	
Total Non-Radiological and Radiolgical Risk Estimate							**1.07E-05**				
100-D-86:1	100-D-86:1_Deep	10098-97-2	Strontium-90	Rad	0.352	2.27E+00	1.55E-05	151.72%	--	-	-
Total Radiological Risk Estimate							**1.55E-05**			**0.00E+00**	
100-D-86:1	100-D-86:1_OB	14683-23-9	Europium-152	Rad	0.0524	3.66E+00	1.43E-06	8.63%	--	-	-
100-D-86:1	100-D-86:1_OB	SR-RAD	Total beta radiostrontium	Rad	0.344	2.27E+00	1.52E-05	91.37%	--	-	-
Total Radiological Risk Estimate							**1.66E-05**				
100-D-86:1	100-D-86:1_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.169	--	-	-	2.40E+02	7.04E-04	4.11%
100-D-86:1	100-D-86:1_OB	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	3.94%
100-D-86:1	100-D-86:1_OB	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	11	--	-	-	--	-	-
100-D-86:1	100-D-86:1_OB	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	6.2	--	-	-	--	-	-
100-D-86:1	100-D-86:1_OB	83-32-9	Acenaphthene	Non-Rad	0.045	--	-	-	4.80E+03	9.38E-06	0.05%
100-D-86:1	100-D-86:1_OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.073	1.37E+00	5.33E-08	5.48%	--	-	-
100-D-86:1	100-D-86:1_OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.078	1.37E-01	5.69E-07	58.57%	--	-	-
100-D-86:1	100-D-86:1_OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.043	1.37E+00	3.14E-08	3.23%	--	-	-
100-D-86:1	100-D-86:1_OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.15	--	-	-	--	-	-
100-D-86:1	100-D-86:1_OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.021	1.37E+00	1.53E-08	1.58%	--	-	-
100-D-86:1	100-D-86:1_OB	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.2			0.00%			0.00%
100-D-86:1	100-D-86:1_OB	86-74-8	Carbazole	Non-Rad	0.087			0.00%			0.00%
100-D-86:1	100-D-86:1_OB	218-01-9	chrysene	Non-Rad	0.081	1.37E+01	5.91E-09	0.61%	--	-	-
100-D-86:1	100-D-86:1_OB	84-74-2	Di-n-butylphthalate	Non-Rad	0.038			0.00%			0.00%
100-D-86:1	100-D-86:1_OB	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.041			0.00%			0.00%
100-D-86:1	100-D-86:1_OB	132-64-9	Dibenzofuran	Non-Rad	0.061			0.00%			0.00%
100-D-86:1	100-D-86:1_OB	206-44-0	fluoranthene	Non-Rad	0.14	--	-	-	3.20E+03	4.38E-05	0.26%
100-D-86:1	100-D-86:1_OB	86-73-7	fluorene	Non-Rad	0.044	--	-	-	3.20E+03	1.38E-05	0.08%
100-D-86:1	100-D-86:1_OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.16	1.37E+00	1.17E-07	12.01%	--	-	-
100-D-86:1	100-D-86:1_OB	85-01-8	Phenanthrene	Non-Rad	0.064	--	-	-	--	-	-
100-D-86:1	100-D-86:1_OB	129-00-0	Pyrene	Non-Rad	0.18	--	-	-	2.40E+03	7.50E-05	0.44%
100-D-86:1	100-D-86:1_OB	11097-69-1	Aroclor-1254	Non-Rad	0.025	5.00E-01	5.00E-08	5.14%	1.60E+00	1.56E-02	91.13%
100-D-86:1	100-D-86:1_OB	11096-82-5	Aroclor-1260	Non-Rad	0.065	5.00E-01	1.30E-07	13.37%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.72E-07**			**1.71E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.76E-05**			**1.71E-02**	
100-D-86:3	100-D-86:3_Shallow	7440-42-8	Boron	Non-Rad	3.2	--	-	-	1.60E+04	2.00E-04	7.54%
100-D-86:3	100-D-86:3_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.328	--	-	-	2.40E+02	1.37E-03	51.49%
100-D-86:3	100-D-86:3_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0024	2.94E+00	8.16E-10	0.12%	4.00E+01	6.00E-05	2.26%
100-D-86:3	100-D-86:3_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.006	1.37E+00	4.38E-09	0.64%	--	-	-
100-D-86:3	100-D-86:3_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.015	1.37E-01	1.10E-07	16.05%	--	-	-
100-D-86:3	100-D-86:3_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.012	1.37E+00	8.76E-09	1.28%	--	-	-
100-D-86:3	100-D-86:3_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0041	1.37E+00	2.99E-09	0.44%	--	-	-
100-D-86:3	100-D-86:3_Shallow	218-01-9	chrysene	Non-Rad	0.015	1.37E+01	1.10E-09	0.16%	--	-	-
100-D-86:3	100-D-86:3_Shallow	60-57-1	Dieldrin	Non-Rad	0.0011	6.25E-02	1.76E-08	2.58%	4.00E+00	2.75E-04	10.36%
100-D-86:3	100-D-86:3_Shallow	206-44-0	fluoranthene	Non-Rad	0.017	--	-	-	3.20E+03	5.31E-06	0.20%
100-D-86:3	100-D-86:3_Shallow	1024-57-3	Heptachlor epoxide	Non-Rad	0.00077	1.10E-01	7.01E-09	1.03%	1.04E+00	7.40E-04	27.90%
100-D-86:3	100-D-86:3_Shallow	72-43-5	Methoxychlor	Non-Rad	0.0027	--	-	-	4.00E+02	6.75E-06	0.25%
100-D-86:3	100-D-86:3_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.265	5.00E-01	5.30E-07	77.70%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.82E-07**			**2.65E-03**	
100-D-86:3	100-D-86:3_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.346	--	-	-	2.40E+02	1.44E-03	48.59%
100-D-86:3	100-D-86:3_SPA	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	25.28%
100-D-86:3	100-D-86:3_SPA	83-32-9	Acenaphthene	Non-Rad	0.018	--	-	-	4.80E+03	3.75E-06	0.13%
100-D-86:3	100-D-86:3_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.052	1.37E+00	3.80E-08	4.47%	--	-	-
100-D-86:3	100-D-86:3_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.051	1.37E-01	3.72E-07	43.82%	--	-	-
100-D-86:3	100-D-86:3_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.012	1.37E+00	8.76E-09	1.03%	--	-	-
100-D-86:3	100-D-86:3_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.024	--	-	-	--	-	-
100-D-86:3	100-D-86:3_SPA	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.065	7.14E+01	9.10E-10	0.11%	1.60E+03	4.06E-05	1.37%
100-D-86:3	100-D-86:3_SPA	218-01-9	chrysene	Non-Rad	0.062	1.37E+01	4.53E-09	0.53%	--	-	-
100-D-86:3	100-D-86:3_SPA	131-11-3	Dimethyl phthalate	Non-Rad	0.027	--	-	-	--	-	-
100-D-86:3	100-D-86:3_SPA	206-44-0	fluoranthene	Non-Rad	0.13	--	-	-	3.20E+03	4.06E-05	1.37%
100-D-86:3	100-D-86:3_SPA	76-44-8	Heptachlor	Non-Rad	0.00026	2.22E-01	1.17E-09	0.14%	4.00E+01	6.50E-06	0.22%
100-D-86:3	100-D-86:3_SPA	1024-57-3	Heptachlor epoxide	Non-Rad	0.00065	1.10E-01	5.92E-09	0.70%	1.04E+00	6.25E-04	21.06%
100-D-86:3	100-D-86:3_SPA	72-43-5	Methoxychlor	Non-Rad	0.0019	--	-	-	4.00E+02	4.75E-06	0.16%
100-D-86:3	100-D-86:3_SPA	85-01-8	Phenanthrene	Non-Rad	0.1	--	-	-	--	-	-
100-D-86:3	100-D-86:3_SPA	129-00-0	Pyrene	Non-Rad	0.13	--	-	-	2.40E+03	5.42E-05	1.83%
100-D-86:3	100-D-86:3_SPA	11096-82-5	Aroclor-1260	Non-Rad	0.209	5.00E-01	4.18E-07	49.20%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.50E-07**			**2.97E-03**	
100-D-96:1	100-D-96:1_Shallow	7440-42-8	Boron	Non-Rad	4.5	--	-	-	1.60E+04	2.81E-04	11.38%
100-D-96:1	100-D-96:1_Shallow	7439-92-1	Lead	Non-Rad	11.7	--	-	-	--	-	-
100-D-96:1	100-D-96:1_Shallow	7439-98-7	Molybdenum	Non-Rad	0.373	--	-	-	4.00E+02	9.33E-04	37.73%
100-D-96:1	100-D-96:1_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	161	--	-	-	1.28E+05	1.26E-03	50.89%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.47E-03**	
100-D-96:2	100-D-96:2_Shallow&SPA	7440-42-8	Boron	Non-Rad	4.3	--	-	-	1.60E+04	2.69E-04	11.27%
100-D-96:2	100-D-96:2_Shallow&SPA	7439-92-1	Lead	Non-Rad	64.6	--	-	-	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	7439-98-7	Molybdenum	Non-Rad	0.45	--	-	-	4.00E+02	1.13E-03	47.17%
100-D-96:2	100-D-96:2_Shallow&SPA	16984-48-8	Fluoride	Non-Rad	3.9	--	-	-	4.80E+03	8.13E-04	34.06%
100-D-96:2	100-D-96:2_Shallow&SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	15.9	--	-	-	1.28E+05	1.24E-04	5.21%
100-D-96:2	100-D-96:2_Shallow&SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.026	1.37E+00	1.90E-08	19.56%	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.0095	1.37E-01	6.94E-08	71.48%	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0099	1.37E+00	7.23E-09	7.45%	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	218-01-9	chrysene	Non-Rad	0.02	1.37E+01	1.46E-09	1.50%	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	206-44-0	fluoranthene	Non-Rad	0.075	--	-	-	3.20E+03	2.34E-05	0.98%
100-D-96:2	100-D-96:2_Shallow&SPA	85-01-8	Phenanthrene	Non-Rad	0.047	--	-	-	--	-	-
100-D-96:2	100-D-96:2_Shallow&SPA	129-00-0	Pyrene	Non-Rad	0.075	--	-	-	2.40E+03	3.13E-05	1.31%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.70E-08**			**2.39E-03**	

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-97	100-D-97_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.221	--	-	-	2.40E+02	9.21E-04	49.44%
100-D-97	100-D-97_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.37	--	-	-	4.00E+02	9.25E-04	49.66%
100-D-97	100-D-97_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	1.3	--	-	-	--	-	-
100-D-97	100-D-97_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	3.9	--	-	-	--	-	-
100-D-97	100-D-97_Shallow Focused	67-66-3	Chloroform	Non-Rad	0.0039	3.23E+01	1.21E-10	91.52%	8.00E+02	4.88E-06	0.26%
100-D-97	100-D-97_Shallow Focused	75-09-2	Methylene chloride	Non-Rad	0.0056	5.00E+02	1.12E-11	8.48%	4.80E+02	1.17E-05	0.63%
100-D-97	100-D-97_Shallow Focused	108-88-3	Toluene	Non-Rad	0.0018	--	-	-	6.40E+03	2.81E-07	0.02%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.32E-10**			**1.86E-03**	
100-D-97	100-D-97_Shallow	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	0.32%
100-D-97	100-D-97_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.389	--	-	-	2.40E+02	1.62E-03	6.84%
100-D-97	100-D-97_Shallow	7439-98-7	Molybdenum	Non-Rad	0.52	--	-	-	4.00E+02	1.30E-03	5.49%
100-D-97	100-D-97_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	10	--	-	-	--	-	-
100-D-97	100-D-97_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	25	--	-	-	--	-	-
100-D-97	100-D-97_Shallow	67-64-1	Acetone	Non-Rad	0.031	--	-	-	7.20E+04	4.31E-07	0.00%
100-D-97	100-D-97_Shallow	67-66-3	Chloroform	Non-Rad	0.0033	3.23E+01	1.02E-10	0.12%	8.00E+02	4.13E-06	0.02%
100-D-97	100-D-97_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.012	1.37E+00	8.76E-09	10.38%	--	-	-
100-D-97	100-D-97_Shallow	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.013	1.37E+00	9.49E-09	11.25%			
100-D-97	100-D-97_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.033	5.00E-01	6.60E-08	78.23%	1.60E+00	2.06E-02	87.06%
100-D-97	100-D-97_Shallow	78-93-3	2-Butanone	Non-Rad	0.022	--	-	-	4.80E+04	4.58E-07	0.00%
100-D-97	100-D-97_Shallow	591-78-6	2-Hexanone	Non-Rad	0.019	--	-	-	4.00E+02	4.75E-05	0.20%
100-D-97	100-D-97_Shallow	108-10-1	4-methyl-2-pentanone	Non-Rad	0.019	--	-	-	6.40E+03	2.97E-06	0.01%
100-D-97	100-D-97_Shallow	108-90-7	Chlorobenzene	Non-Rad	0.00071	--	-	-	1.60E+03	4.44E-07	0.00%
100-D-97	100-D-97_Shallow	75-09-2	Methylene chloride	Non-Rad	0.0069	5.00E+02	1.38E-11	0.02%	4.80E+02	1.44E-05	0.06%
100-D-97	100-D-97_Shallow	108-88-3	Toluene	Non-Rad	0.0014	--	-	-	6.40E+03	2.19E-07	0.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.44E-08**			**2.37E-02**	
100-D-98:2	100-D-98:2_Shallow	7440-42-8	Boron	Non-Rad	5.17	--	-	-	1.60E+04	3.23E-04	13.97%
100-D-98:2	100-D-98:2_Shallow	7439-98-7	Molybdenum	Non-Rad	0.796	--	-	-	4.00E+02	1.99E-03	86.03%
100-D-98:2	100-D-98:2_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	51	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.31E-03**	
100-D-99	100-D-99_Shallow	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	1.72%
100-D-99	100-D-99_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.366	--	-	-	2.40E+02	1.53E-03	27.90%
100-D-99	100-D-99_Shallow	7439-98-7	Molybdenum	Non-Rad	0.49	--	-	-	4.00E+02	1.23E-03	22.41%
100-D-99	100-D-99_Shallow	7782-49-2	Selenium	Non-Rad	0.94	--	-	-	4.00E+02	2.35E-03	43.00%
100-D-99	100-D-99_Shallow	NO2+NO3-N	Nitrogen in nitrite and nitrate	Non-Rad	33.4	--	-	-	1.28E+05	2.61E-04	4.77%
100-D-99	100-D-99_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	2.4	--	-	-	--	-	-
100-D-99	100-D-99_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	8.8	--	-	-	--	-	-
100-D-99	100-D-99_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.014	1.37E+00	1.02E-08	5.21%	--	-	-
100-D-99	100-D-99_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.021	1.37E-01	1.53E-07	78.10%	--	-	-
100-D-99	100-D-99_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.02	1.37E+00	1.46E-08	7.44%	--	-	-
100-D-99	100-D-99_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.021	--	-	-	--	-	-
100-D-99	100-D-99_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0066	1.37E+00	4.82E-09	2.45%	--	-	-
100-D-99	100-D-99_Shallow	67-66-3	Chloroform	Non-Rad	0.0041	3.23E+01	1.27E-10	0.06%	8.00E+02	5.13E-06	0.09%
100-D-99	100-D-99_Shallow	218-01-9	Chrysene	Non-Rad	0.041	1.37E+01	2.99E-09	1.52%			
100-D-99	100-D-99_Shallow	206-44-0	Fluoranthene	Non-Rad	0.017	--	-	-	3.20E+03	5.31E-06	0.10%
100-D-99	100-D-99_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.014	1.37E+00	1.02E-08	5.21%	--	-	-
100-D-99	100-D-99_Shallow	108-88-3	Toluene	Non-Rad	0.00077	--	-	-	6.40E+03	1.20E-07	0.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.96E-07**			**5.47E-03**	
100-D-99	100-D-99_SPA	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	1.94%
100-D-99	100-D-99_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.488	--	-	-	2.40E+02	2.03E-03	37.20%
100-D-99	100-D-99_SPA	7439-98-7	Molybdenum	Non-Rad	0.57	--	-	-	4.00E+02	1.43E-03	26.07%
100-D-99	100-D-99_SPA	7782-49-2	Selenium	Non-Rad	1.2	--	-	-	4.00E+02	3.00E-03	54.89%
100-D-99	100-D-99_SPA	NO2-N	Nitrogen in nitrate	Non-Rad	15	--	-	-	1.28E+05	1.17E-04	2.14%
100-D-99	100-D-99_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	11.5	--	-	-	--	-	-
100-D-99	100-D-99_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	127	--	-	-	--	-	-
100-D-99	100-D-99_SPA	75-34-3	1,1-Dichloroethane	Non-Rad	0.00022	1.75E+02	1.25E-12	0.00%	1.60E+04	1.38E-08	0.00%
100-D-99	100-D-99_SPA	75-35-4	1,1-Dichloroethene	Non-Rad	0.0011	--	-	-	4.00E+03	2.75E-07	0.01%
100-D-99	100-D-99_SPA	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00069	2.94E+00	2.35E-10	0.12%	--	-	-
100-D-99	100-D-99_SPA	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0015	2.94E+00	5.10E-10	0.26%	4.00E+01	3.75E-05	0.69%
100-D-99	100-D-99_SPA	67-66-3	Chloroform	Non-Rad	0.013	3.23E+01	4.03E-10	0.21%	8.00E+02	1.63E-05	0.30%
100-D-99	100-D-99_SPA	5566-34-7	gamma-Chlordane	Non-Rad	0.0006	2.86E+00	2.10E-10	0.11%	4.00E+01	1.50E-05	0.27%
100-D-99	100-D-99_SPA	108-88-3	Toluene	Non-Rad	0.001	--	-	-	6.40E+03	1.56E-07	0.00%
100-D-99	100-D-99_SPA	8001-35-2	Toxaphene	Non-Rad	0.051	9.09E-01	5.61E-08	28.58%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.75E-08**			**6.75E-03**	
100-D-100	100-D-100_Shallow 1	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	5.03%
100-D-100	100-D-100_Shallow 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.176	--	-	-	2.40E+02	7.33E-04	45.42%
100-D-100	100-D-100_Shallow 1	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	49.55%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.61E-03**	
100-D-100	100-D-100_Shallow 2	7440-42-8	Boron	Non-Rad	0.99	--	-	-	1.60E+04	6.19E-05	1.94%
100-D-100	100-D-100_Shallow 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.559	--	-	-	2.40E+02	2.33E-03	72.99%
100-D-100	100-D-100_Shallow 2	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	25.07%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.19E-03**	
100-D-100	100-D-100_Shallow 4	18540-29-9	Hexavalent Chromium	Non-Rad	0.198	--	-	-	2.40E+02	8.25E-04	56.90%
100-D-100	100-D-100_Shallow 4	7439-98-7	Molybdenum	Non-Rad	0.25	--	-	-	4.00E+02	6.25E-04	43.10%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.45E-03**	
100-D-100	100-D-100_Shallow 5	18540-29-9	Hexavalent Chromium	Non-Rad	0.247	--	-	-	2.40E+02	1.03E-03	58.67%
100-D-100	100-D-100_Shallow 5	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	41.33%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.75E-03**	
100-D-100	100-D-100_Shallow 6	18540-29-9	Hexavalent Chromium	Non-Rad	0.192	--	-	-	2.40E+02	8.00E-04	45.61%
100-D-100	100-D-100_Shallow 6	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	47.03%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.63E-03**	
100-D-100	100-D-100_Shallow 7	18540-29-9	Hexavalent Chromium	Non-Rad	0.31	--	-	-	2.40E+02	1.29E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.29E-03**	
100-D-100	100-D-100_Shallow 8	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	8.18%
100-D-100	100-D-100_Shallow 8	18540-29-9	Hexavalent Chromium	Non-Rad	0.219	--	-	-	2.40E+02	9.13E-04	91.82%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**9.94E-04**	
100-D-100	100-D-100_Tier II SPA	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	2.78%
100-D-100	100-D-100_Tier II SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.606	--	-	-	2.40E+02	2.53E-03	74.95%
100-D-100	100-D-100_Tier II SPA	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	22.26%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.37E-03**	
100-D-100	100-D-100_Tier II OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.34	--	-	-	2.40E+02	1.42E-03	63.69%
100-D-100	100-D-100_Tier II OB	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	32.60%
100-D-100	100-D-100_Tier II OB	NO2-N	Nitrogen in nitrite	Non-Rad	0.66	--	-	-	8.00E+03	8.25E-05	3.71%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.22E-03**	
100-D-100	100-D-100_Tier III OB (SP1VL1)	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	1.40%
100-D-100	100-D-100_Tier III OB (SP1VL1)	18540-29-9	Hexavalent Chromium	Non-Rad	1.04	--	-	-	2.40E+02	4.33E-03	80.87%
100-D-100	100-D-100_Tier III OB (SP1VL1)	7439-98-7	Molybdenum	Non-Rad	0.38	--	-	-	4.00E+02	9.50E-04	17.73%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.36E-03**	
100-D-100	100-D-100 OB in 100-D-50:1 (BFVL1)	18540-29-9	Hexavalent Chromium	Non-Rad	0.182	--	-	-	2.40E+02	7.58E-04	52.91%
100-D-100	100-D-100 OB in 100-D-50:1 (BFVL1)	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	47.09%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.43E-03**	

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL2)	18540-29-9	Hexavalent Chromium	Non-Rad	0.359	--	-	-	2.40E+02	1.50E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.50E-03**	
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL3)	7440-42-8	Boron	Non-Rad	0.88	--	-	-	1.60E+04	5.50E-05	3.44%
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL3)	18540-29-9	Hexavalent Chromium	Non-Rad	0.215	--	-	-	2.40E+02	8.96E-04	55.96%
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL3)	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	40.60%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.60E-03**	
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL4)	7440-42-8	Boron	Non-Rad	0.91	--	-	-	1.60E+04	5.69E-05	3.52%
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL4)	18540-29-9	Hexavalent Chromium	Non-Rad	0.242	--	-	-	2.40E+02	1.01E-03	62.43%
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL4)	7439-98-7	Molybdenum	Non-Rad	0.22	--	-	-	4.00E+02	5.50E-04	34.05%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.62E-03**	
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL5)	18540-29-9	Hexavalent Chromium	Non-Rad	0.174	--	-	-	2.40E+02	7.25E-04	46.77%
100-D-100	100-D-100 DB in 100-D-50:1 (BFVL5)	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	53.23%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.55E-03**	
100-D-100	100-D-100 DB in 100-D-62/100-D-77 (BFVL1)	18540-29-9	Hexavalent Chromium	Non-Rad	0.416	--	-	-	2.40E+02	1.73E-03	71.23%
100-D-100	100-D-100 DB in 100-D-62/100-D-77 (BFVL1)	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	28.77%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.43E-03**	
100-D-100	100-D-100 DB in 100-D-62/100-D-77 (BFVL2)	18540-29-9	Hexavalent Chromium	Non-Rad	0.17	--	-	-	2.40E+02	7.08E-04	41.46%
100-D-100	100-D-100 DB in 100-D-62/100-D-77 (BFVL2)	7439-98-7	Molybdenum	Non-Rad	0.4	--	-	-	4.00E+02	1.00E-03	58.54%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.71E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (VLIN1)	7440-42-8	Boron	Non-Rad	1	--	-	-	1.60E+04	6.25E-05	2.87%
100-D-100	100-D-100 DB in 100-D-50:6 (VLIN1)	18540-29-9	Hexavalent Chromium	Non-Rad	0.375	--	-	-	2.40E+02	1.56E-03	71.84%
100-D-100	100-D-100 DB in 100-D-50:6 (VLIN1)	7439-98-7	Molybdenum	Non-Rad	0.22	--	-	-	4.00E+02	5.50E-04	25.29%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.18E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL2N)	18540-29-9	Hexavalent Chromium	Non-Rad	0.288	--	-	-	2.40E+02	1.20E-03	62.34%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL2N)	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	37.66%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.93E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3N)	18540-29-9	Hexavalent Chromium	Non-Rad	0.247	--	-	-	2.40E+02	1.03E-03	57.04%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3N)	7439-98-7	Molybdenum	Non-Rad	0.31	--	-	-	4.00E+02	7.75E-04	42.96%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.80E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (VL1S)	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	3.25%
100-D-100	100-D-100 DB in 100-D-50:6 (VL1S)	18540-29-9	Hexavalent Chromium	Non-Rad	0.577	--	-	-	2.40E+02	2.40E-03	78.08%
100-D-100	100-D-100 DB in 100-D-50:6 (VL1S)	7439-98-7	Molybdenum	Non-Rad	0.23	--	-	-	4.00E+02	5.75E-04	18.67%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.08E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL2S)	18540-29-9	Hexavalent Chromium	Non-Rad	0.482	--	-	-	2.40E+02	2.01E-03	74.15%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL2S)	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	25.85%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.71E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3S)	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	1.60%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3S)	18540-29-9	Hexavalent Chromium	Non-Rad	0.252	--	-	-	2.40E+02	1.05E-03	20.66%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3S)	7439-98-7	Molybdenum	Non-Rad	0.38	--	-	-	4.00E+02	9.50E-04	18.70%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL3S)	7782-49-2	Selenium	Non-Rad	1.2	--	-	-	4.00E+02	3.00E-03	59.04%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.08E-03**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL4S)	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**6.75E-04**	
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL1W)	18540-29-9	Hexavalent Chromium	Non-Rad	0.242	--	-	-	2.40E+02	1.01E-03	54.26%
100-D-100	100-D-100 DB in 100-D-50:6 (SP2VL1W)	7439-98-7	Molybdenum	Non-Rad	0.34	--	-	-	4.00E+02	8.50E-04	45.74%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.86E-03**	
100-D-100	100-D-100_Tier III SPA1_SE	7440-42-8	Boron	Non-Rad	1.3	--	-	-	1.60E+04	8.13E-05	3.03%
100-D-100	100-D-100_Tier III SPA1_SE	18540-29-9	Hexavalent Chromium	Non-Rad	0.312	--	-	-	2.40E+02	1.30E-03	48.48%
100-D-100	100-D-100_Tier III SPA1_SE	7439-98-7	Molybdenum	Non-Rad	0.52	--	-	-	4.00E+02	1.30E-03	48.48%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.68E-03**	
100-D-100	100-D-100_Tier III SPA_SW	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	3.76%
100-D-100	100-D-100_Tier III SPA_SW	18540-29-9	Hexavalent Chromium	Non-Rad	0.308	--	-	-	2.40E+02	1.28E-03	48.28%
100-D-100	100-D-100_Tier III SPA_SW	7439-98-7	Molybdenum	Non-Rad	0.51	--	-	-	4.00E+02	1.28E-03	47.96%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.66E-03**	
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	7440-42-8	Boron	Non-Rad	2.2	--	-	-	1.60E+04	1.38E-04	0.77%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	18540-29-9	Hexavalent Chromium	Non-Rad	0.409	--	-	-	2.40E+02	1.70E-03	9.58%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	7439-97-6	Mercury	Non-Rad	0.37	--	-	-	2.40E+01	1.54E-02	86.68%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	24.4	--	-	-	1.28E+05	1.91E-04	1.07%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	8.4	--	-	-	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	18	--	-	-	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	83-32-9	Acenaphthene	Non-Rad	0.026	--	-	-	4.80E+03	5.42E-06	0.03%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	120-12-7	Anthracene	Non-Rad	0.063	--	-	-	2.40E+04	2.63E-06	0.01%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	56-55-3	Benzo(a)anthracene	Non-Rad	0.033	1.37E+00	2.41E-08	6.03%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	50-32-8	Benzo(a)pyrene	Non-Rad	0.038	1.37E-01	2.77E-07	69.46%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.036	1.37E+00	2.63E-08	6.58%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	191-24-2	Benzo(ghi)perylene	Non-Rad	0.06	--	-	-	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.015	1.37E+00	1.10E-08	2.74%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	86-74-8	Carbazole	Non-Rad	0.068	5.00E+01	1.36E-09	0.34%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	218-01-9	Chrysene	Non-Rad	0.032	1.37E+01	2.34E-09	0.58%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.023	1.37E+00	1.68E-08	4.20%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	132-64-9	Dibenzofuran	Non-Rad	0.022	--	-	-	8.00E+01	2.75E-04	1.55%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	206-44-0	Fluoranthene	Non-Rad	0.063	--	-	-	3.20E+03	1.97E-05	0.11%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	86-73-7	Fluorene	Non-Rad	0.016	--	-	-	3.20E+03	5.00E-06	0.03%
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.055	1.37E+00	4.02E-08	10.05%	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	85-01-8	Phenanthrene	Non-Rad	0.084	--	-	-	--	-	-
100-D-100	100-D-100 in 100-D-72, 100-D-31:11, 100-D-31:12, 100-D-81, 10	129-00-0	Pyrene	Non-Rad	0.069	--	-	-	2.40E+03	2.88E-05	0.16%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.99E-07**			**1.78E-02**	
100-D-100	100-D-100 Decon_Pad	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	1.34%
100-D-100	100-D-100 Decon_Pad	18540-29-9	Hexavalent Chromium	Non-Rad	0.551	--	-	-	2.40E+02	2.30E-03	29.05%
100-D-100	100-D-100 Decon_Pad	7439-98-7	Molybdenum	Non-Rad	2.2	--	-	-	4.00E+02	5.50E-03	69.60%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**7.90E-03**	
100-D-101	100-D-101_Shallow	7440-42-8	Boron	Non-Rad	5.37	--	-	-	1.60E+04	3.36E-04	2.35%
100-D-101	100-D-101_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.358	--	-	-	2.40E+02	1.49E-03	10.44%
100-D-101	100-D-101_Shallow	7439-92-1	Lead	Non-Rad	71.4	--	-	-	--	-	-
100-D-101	100-D-101_Shallow	7439-98-7	Molybdenum	Non-Rad	0.441	--	-	-	4.00E+02	1.10E-03	7.72%
100-D-101	100-D-101_Shallow	7440-66-6	Zinc	Non-Rad	192	--	-	-	2.40E+04	8.00E-03	56.02%
100-D-101	100-D-101_Shallow	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.201	7.14E+01	2.81E-09	1.54%	1.60E+03	1.26E-04	0.88%
100-D-101	100-D-101_Shallow	218-01-9	chrysene	Non-Rad	2.47	1.37E+01	1.80E-07	98.46%	--	-	-
100-D-101	100-D-101_Shallow	206-44-0	fluoranthene	Non-Rad	3.55	--	-	-	3.20E+03	1.11E-03	7.77%
100-D-101	100-D-101_Shallow	129-00-0	Pyrene	Non-Rad	5.08	--	-	-	2.40E+03	2.12E-03	14.82%
100-D-101	100-D-101_Shallow	67-64-1	Acetone	Non-Rad	0.0075	--	-	-	7.20E+04	1.04E-07	0.00%
100-D-101	100-D-101_Shallow	108-88-3	Toluene	Non-Rad	0.00065	--	-	-	6.40E+03	1.02E-07	0.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.83E-07**			**1.43E-02**	
100-D-102	100-D-102_Shallow	10045-97-3	Cesium-137	Rad	0.081	4.40E+00	1.84E-06	8.71%	--	-	-
100-D-102	100-D-102_Shallow	10098-97-2	Strontium-90	Rad	0.438	2.27E+00	1.93E-05	91.29%	--	-	-
Total Radiological Risk Estimate							**2.11E-05**				
100-D-102	100-D-102_Shallow	7440-42-8	Boron	Non-Rad	0.758	--	-	-	1.60E+04	4.74E-05	4.44%
100-D-102	100-D-102_Shallow	7439-98-7	Molybdenum	Non-Rad	0.389	--	-	-	4.00E+02	9.73E-04	91.17%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-D-102	100-D-102_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	5.99	--	-	-	1.28E+05	4.68E-05	4.39%
Total Radiological Risk Estimate							0.00E+00			1.07E-03	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							2.11E-05				
100-D-103	100-D-103_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.224	--	-	-	2.40E+02	9.33E-04	56.45%
100-D-103	100-D-103_Shallow	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	40.82%
100-D-103	100-D-103_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	11	--	-	-	--	-	-
100-D-103	100-D-103_Shallow	117-81-7	Bis(2-ethylhexyl) phthalate	Non-Rad	0.071	7.14E+01	9.94E-10	0.54%	1.60E+03	4.44E-05	2.68%
100-D-103	100-D-103_Shallow	78-93-3	2-Butanone	Non-Rad	0.0065	--	-	-	4.80E+04	1.35E-07	0.01%
100-D-103	100-D-103_Shallow	108-88-3	Toluene	Non-Rad	0.004	--	-	-	6.40E+03	6.25E-07	0.04%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							9.94E-10			1.65E-03	
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	7440-42-8	Boron	Non-Rad	2.3	--	-	-	1.60E+04	1.44E-04	2.45%
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.347	--	-	-	2.40E+02	1.45E-03	24.65%
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	11.94%
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	7439-92-1	Lead	Non-Rad	10.7	--	-	-	--	-	-
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0036	2.94E+00	1.22E-09	8.68%	--	-	-
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0055	2.94E+00	1.87E-09	13.27%	4.00E+01	1.38E-04	2.34%
100-D-104/100-D-50:7	100-D-104/100-D-50:7 Tier II_SPA	11097-69-1	Aroclor-1254	Non-Rad	0.0055	5.00E-01	1.10E-08	78.05%	1.60E+00	3.44E-03	58.61%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							1.41E-08			5.86E-03	
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7440-42-8	Boron	Non-Rad	1.35	--	-	-	1.60E+04	8.44E-05	9.46%
100-D-105	100-D-105 Test Pit 3 (Segment 3)_Shallow	7439-98-7	Molybdenum	Non-Rad	0.323	--	-	-	4.00E+02	8.08E-04	90.54%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			8.92E-04	
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7440-42-8	Boron	Non-Rad	0.88	--	-	-	1.60E+04	5.50E-05	7.53%
100-D-105	100-D-105 Test Pit 4 (Segment 7)_Shallow	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	92.47%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			7.30E-04	
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-42-8	Boron	Non-Rad	1.25	--	-	-	1.60E+04	7.81E-05	0.03%
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-43-9	Cadmium	Non-Rad	0.884	--	-	-	8.00E+01	1.11E-02	3.83%
100-D-105	100-D-105 Test Pit 5 (Segment 8)_Shallow	7440-62-2	Vanadium	Non-Rad	111	--	-	-	4.00E+02	2.78E-01	96.14%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			2.89E-01	
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-42-8	Boron	Non-Rad	1.14	--	-	-	1.60E+04	7.13E-05	0.02%
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-43-9	Cadmium	Non-Rad	0.874	--	-	-	8.00E+01	1.09E-02	3.48%
100-D-105	100-D-105 Test Pit 6 (Segment 9)_Shallow	7440-62-2	Vanadium	Non-Rad	121	--	-	-	4.00E+02	3.03E-01	96.49%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			3.13E-01	
100-D-105	100-D-105 Test Pit 8 (Segment 11)_Shallow	7440-42-8	Boron	Non-Rad	3.03	--	-	-	1.60E+04	1.89E-04	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			1.89E-04	
100-D-105	100-D-105 Test Pit 9 (Segment 12)_Shallow	7440-42-8	Boron	Non-Rad	1.1	--	-	-	1.60E+04	6.88E-05	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			6.88E-05	
100-D-105	100-D-105 Test Pit 10 (Segment 14)_Shallow	7440-62-2	Vanadium	Non-Rad	87.6	--	-	-	4.00E+02	2.19E-01	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			2.19E-01	
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7440-42-8	Boron	Non-Rad	2.3	--	-	-	1.60E+04	1.44E-04	18.11%
100-D-105	100-D-105 Test Pit 11 (Segment 15)_Shallow	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	81.89%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			7.94E-04	
100-D-105	100-D-105 Test Pit 12 (Segment 4)_shallow	7440-42-8	Boron	Non-Rad	1.55	--	-	-	1.60E+04	9.69E-05	11.85%
100-D-105	100-D-105 Test Pit 12 (Segment 4)_shallow	18540-29-9	Hexavalent chromium	Non-Rad	0.173	--	-	-	2.40E+02	7.21E-04	88.15%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			8.18E-04	
100-D-105	100-D-105 Test Pit 13 (Segment 5)_shallow	7440-42-8	Boron	Non-Rad	1.03	--	-	-	1.60E+04	6.44E-05	1.03%
100-D-105	100-D-105 Test Pit 13 (Segment 5)_shallow	7440-43-9	Cadmium	Non-Rad	0.238	--	-	-	8.00E+01	2.98E-03	47.62%
100-D-105	100-D-105 Test Pit 13 (Segment 5)_shallow	7440-66-6	Zinc	Non-Rad	77	--	-	-	2.40E+04	3.21E-03	51.35%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			6.25E-03	
100-D-106	100-D-106_Shallow	7440-42-8	Boron	Non-Rad	2	--	-	-	1.60E+04	1.25E-04	2.57%
100-D-106	100-D-106_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.29	--	-	-	2.40E+02	1.21E-03	24.89%
100-D-106	100-D-106_Shallow	7439-98-7	Molybdenum	Non-Rad	0.58	--	-	-	4.00E+02	1.45E-03	29.86%
100-D-106	100-D-106_Shallow	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	41.71%
100-D-106	100-D-106_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.012	1.37E+00	8.76E-09	13.35%	--	-	-
100-D-106	100-D-106_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0076	1.37E-01	5.55E-08	84.55%	--	-	-
100-D-106	100-D-106_Shallow	218-01-9	chrysene	Non-Rad	0.01	1.37E+01	7.30E-10	1.11%	--	-	-
100-D-106	100-D-106_Shallow	206-44-0	fluoranthene	Non-Rad	0.019	--	-	-	3.20E+03	5.94E-06	0.12%
100-D-106	100-D-106_Shallow	129-00-0	Pyrene	Non-Rad	0.015	--	-	-	2.40E+03	6.25E-06	0.13%
100-D-106	100-D-106_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00051	2.94E+00	1.73E-10	0.26%	--	-	-
100-D-106	100-D-106_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0014	2.94E+00	4.76E-10	0.73%	4.00E+01	3.50E-05	0.72%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							6.56E-08			4.86E-03	
100-D-106	100-D-106_SPA	7440-42-8	Boron	Non-Rad	0.87	--	-	-	1.60E+04	5.44E-05	0.86%
100-D-106	100-D-106_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.321	--	-	-	2.40E+02	1.34E-03	21.06%
100-D-106	100-D-106_SPA	7439-98-7	Molybdenum	Non-Rad	0.78	--	-	-	4.00E+02	1.95E-03	30.70%
100-D-106	100-D-106_SPA	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	31.88%
100-D-106	100-D-106_SPA	16984-48-8	Fluoride	Non-Rad	4.2	--	-	-	4.80E+03	8.75E-04	13.78%
100-D-106	100-D-106_SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	14.1	--	-	-	1.28E+05	1.10E-04	1.73%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							0.00E+00			6.35E-03	
100-D-106	100-D-106_Shallow Focused	7440-42-8	Boron	Non-Rad	1.8	--	-	-	1.60E+04	1.13E-04	0.94%
100-D-106	100-D-106_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.188	--	-	-	2.40E+02	7.83E-04	6.54%
100-D-106	100-D-106_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.55	--	-	-	4.00E+02	1.38E-03	11.48%
100-D-106	100-D-106_Shallow Focused	7782-49-2	Selenium	Non-Rad	1.2	--	-	-	4.00E+02	3.00E-03	25.04%
100-D-106	100-D-106_Shallow Focused	7440-66-6	Zinc	Non-Rad	147	--	-	-	2.40E+04	6.13E-03	51.13%
100-D-106	100-D-106_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	0.0076	--	-	-	--	-	-
100-D-106	100-D-106_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range EXT	Non-Rad	0.01	--	-	-	--	-	-
100-D-106	100-D-106_Shallow Focused	86-73-7	Fluorene	Non-Rad	0.05	--	-	-	3.20E+03	1.56E-05	0.13%
100-D-106	100-D-106_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.015	2.94E+00	5.10E-09	65.43%	4.00E+01	3.75E-04	3.13%
100-D-106	100-D-106_Shallow Focused	57-74-9	Chlordane	Non-Rad	0.0077	2.86E+00	2.70E-09	34.57%	4.00E+01	1.93E-04	1.61%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							7.80E-09			1.20E-02	
100-D-107	100-D-107_Shallow	7440-36-0	Antimony	Non-Rad	9.61	--	-	-	3.20E+01	3.00E-01	37.98%
100-D-107	100-D-107_Shallow	7440-39-3	Barium	Non-Rad	2380	--	-	-	1.60E+04	1.49E-01	18.81%
100-D-107	100-D-107_Shallow	7440-41-7	Beryllium	Non-Rad	2.05	--	-	-	1.60E+02	1.28E-02	1.62%
100-D-107	100-D-107_Shallow	7440-42-8	Boron	Non-Rad	65.1	--	-	-	1.60E+04	4.07E-03	0.51%
100-D-107	100-D-107_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.361	--	-	-	2.40E+02	1.50E-03	0.19%
100-D-107	100-D-107_Shallow	7440-50-8	Copper	Non-Rad	25.5	--	-	-	3.20E+03	7.97E-03	1.01%
100-D-107	100-D-107_Shallow	7439-92-1	Lead	Non-Rad	64.7	--	-	-	--	-	-
100-D-107	100-D-107_Shallow	7439-96-5	Manganese	Non-Rad	531	--	-	-	1.12E+04	4.74E-02	6.00%
100-D-107	100-D-107_Shallow	7439-98-7	Molybdenum	Non-Rad	1.14	--	-	-	4.00E+02	2.85E-03	0.36%
100-D-107	100-D-107_Shallow	7440-62-2	Vanadium	Non-Rad	106	--	-	-	4.00E+02	2.65E-01	33.51%
100-D-107	100-D-107_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	12.2	--	-	-	--	-	-
100-D-107	100-D-107_Shallow	TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	Non-Rad	61.7	--	-	-	--	-	-
100-D-107	100-D-107_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.00419	1.37E+00	3.06E-09	15.35%	--	-	-
100-D-107	100-D-107_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.00102	1.37E-01	7.45E-09	37.36%	--	-	-
100-D-107	100-D-107_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0021	1.37E+00	1.53E-09	7.69%	--	-	-
100-D-107	100-D-107_Shallow	218-01-9	Chrysene	Non-Rad	0.000921	1.37E+01	6.72E-11	0.34%	--	-	-
100-D-107	100-D-107_Shallow	53-70-3	Dibenz(a,h)anthracene	Non-Rad	0.00672	1.37E+00	4.91E-09	24.61%	--	-	-
100-D-107	100-D-107_Shallow	206-44-0	Fluoranthene	Non-Rad	0.00579	--	-	-	3.20E+03	1.81E-06	0.00%
100-D-107	100-D-107_Shallow	91-57-6	2-Methylnaphthalene	Non-Rad	0.031	--	-	-	3.20E+02	9.69E-05	0.01%
100-D-107	100-D-107_Shallow	85-01-8	Phenanthrene	Non-Rad	0.00959	--	-	-	--	-	-
100-D-107	100-D-107_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.00146	5.00E-01	2.92E-09	14.65%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							1.99E-08			7.91E-01	

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
116-DR-3	116-DR-3_Shallow	10045-97-3	Cesium-137	Rad	0.0548	4.40E+00	1.25E-06	94.28%	--	-	-
116-DR-3	116-DR-3_Shallow	10028-17-8	Tritium	Rad	0.471	6.23E+02	7.56E-08	5.72%	--	-	-
Total Radiological Risk Estimate							**1.32E-06**				
116-DR-3	116-DR-3_Shallow	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	**7.50E-05**	0.65%
116-DR-3	116-DR-3_Shallow	18540-29-9	Hexavalent chromium	Non-Rad	1.92	--	-	-	2.40E+02	**8.00E-03**	69.11%
116-DR-3	116-DR-3_Shallow	7439-92-1	Lead	Non-Rad	17.7	--	-	-	--	-	-
116-DR-3	116-DR-3_Shallow	7782-49-2	Selenium	Non-Rad	1.4	--	-	-	4.00E+02	3.50E-03	30.24%
		11096-82-5	Aroclor-1260	Non-Rad	0.01	5.00E-01	2.00E-08	100.00%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.00E-08**			**1.16E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.34E-06**				

118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	14762-75-5	Carbon-14	Rad	0.318	8.10E+01	3.93E-07	97.21%	--	-	-
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	10028-17-8	Tritium	Rad	0.0701	6.23E+02	1.13E-08	2.79%	--	-	-
Total Radiological Risk Estimate							**4.04E-07**				
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	7.78%
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	7439-98-7	Molybdenum	Non-Rad	0.44	--	-	-	4.00E+02	1.10E-03	91.26%
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	1.001	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	3.145	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0093	1.37E+00	6.79E-09	70.45%	--	-	-
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0039	1.37E+00	2.85E-09	29.55%	--	-	-
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	206-44-0	Fluoranthene	Non-Rad	0.017	--	-	-	3.20E+03	5.31E-06	0.44%
118-D-2:1	118-D-2:1_Sample Area A: Trenches 1, 2, 3 and 6_Shallow	129-00-0	Pyrene	Non-Rad	0.015	--	-	-	2.40E+03	6.25E-06	0.52%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.64E-09**			**1.21E-03**	
Total Non-Radiological and Radiological Risk Estimate							**4.13E-07**				

118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	14762-75-5	Carbon-14	Rad	0.371	8.10E+01	4.58E-07	29.75%	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10198-40-0	Cobalt-60	Rad	0.0329	3.10E+00	1.06E-06	68.93%	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	10028-17-8	Tritium	Rad	0.127	6.23E+02	2.04E-08	1.32%	--	-	-
Total Radiological Risk Estimate							**1.54E-06**				
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	7440-42-8	Boron	Non-Rad	2.2	--	-	-	1.60E+04	1.38E-04	1.72%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.217	--	-	-	2.40E+02	9.04E-04	11.30%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	7439-98-7	Molybdenum	Non-Rad	0.39	--	-	-	4.00E+02	9.75E-04	12.19%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	2.104	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	3.474	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	94-82-6	2,4-DB[4-(2,4-Dichlorophenoxy)butanoic acid]	Non-Rad	0.0069	--	-	-	6.40E+02	1.08E-05	0.13%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	120-12-7	Anthracene	Non-Rad	0.0064	--	-	-	2.40E+04	2.67E-07	0.00%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.0095	5.00E-01	1.90E-08	49.08%	1.60E+00	5.94E-03	74.21%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.0069	5.00E-01	1.38E-08	35.65%	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0064	1.37E+00	4.67E-09	12.07%	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	218-01-9	Chrysene	Non-Rad	0.017	1.37E+01	1.24E-09	3.21%	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	206-44-0	Fluoranthene	Non-Rad	0.038	--	-	-	3.20E+03	1.19E-05	0.15%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	91-20-3	Naphthalene	Non-Rad	0.02	--	-	-	1.60E+03	1.25E-05	0.16%
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	85-01-8	Phenanthrene	Non-Rad	0.024	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area B: Trenches 4 and 5_Shallow	129-00-0	Pyrene	Non-Rad	0.026	--	-	-	2.40E+03	1.08E-05	0.14%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.87E-08**			**8.00E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.58E-06**				

118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10045-97-3	Cesium-137	Rad	1.31	4.40E+00	2.98E-05	28.66%	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	13981-16-3	Plutonium-238	Rad	0.0378	2.36E+02	1.60E-08	0.02%	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	PU-239/240	Plutonium-239/240	Rad	0.529	2.03E+02	2.61E-07	0.25%	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10098-97-2	Strontium-90	Rad	1.67	2.27E+00	7.36E-05	70.83%	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	10028-17-8	Tritium	Rad	1.56	6.23E+02	2.50E-07	0.24%	--	-	-
Total Radiological Risk Estimate							**1.04E-04**			**0.00E+00**	
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	0.40%
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	7439-98-7	Molybdenum	Non-Rad	0.43	--	-	-	4.00E+02	1.08E-03	4.01%
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	2.606	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	3.166	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	94-82-6	2,4-DB[4-(2,4-Dichlorophenoxy)butanoic acid]	Non-Rad	0.0056	--	-	-	6.40E+02	8.75E-06	0.03%
118-D-2:1	118-D-2:1_Sample Area C: Trench 7_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.041	5.00E-01	8.20E-08	100.00%	1.60E+00	2.56E-02	95.56%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.20E-08**			**2.68E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.04E-04**				

118-D-2:1	118-D-2:1_08	14762-75-5	Carbon-14	Rad	0.297	8.10E+01	3.67E-07	98.93%	--	-	-
118-D-2:1	118-D-2:1_08	10028-17-8	Tritium	Rad	0.0246	6.23E+02	3.95E-09	1.07%	--	-	-
Total Radiological Risk Estimate							**3.71E-07**				
118-D-2:1	118-D-2:1_08	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-05	0.30%
118-D-2:1	118-D-2:1_08	7439-98-7	Molybdenum	Non-Rad	0.52	--	-	-	4.00E+02	1.30E-03	4.50%
	118-D-2:1_08	7782-49-2	Selenium	Non-Rad	1.3			0.00%			0.00%
118-D-2:1	118-D-2:1_08	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	0.775	--	-	-	--	-	-
118-D-2:1	118-D-2:1_08	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	1.224	--	-	-	--	-	-
118-D-2:1	118-D-2:1_08	94-82-6	2,4-DB[4-(2,4-Dichlorophenoxy)butanoic acid]	Non-Rad	0.0039	--	-	-	6.40E+02	6.09E-06	0.02%
118-D-2:1	118-D-2:1_08	11097-69-1	Aroclor-1254	Non-Rad	0.044	5.00E-01	8.80E-08	80.00%	1.60E+00	2.75E-02	95.18%
118-D-2:1	118-D-2:1_08	11096-82-5	Aroclor-1260	Non-Rad	0.011	5.00E-01	2.20E-08	20.00%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.10E-07**			**2.89E-02**	
Total Non-Radiological and Radiological Risk Estimate							**4.81E-07**				

118-D-2:1	118-D-2:1_Shallow Focused	10045-97-3	Cesium-137	Rad	1.61	4.40E+00	3.66E-05	28.77%	--	-	-
118-D-2:1	118-D-2:1_Shallow Focused	PU-239/240	Plutonium-239/240	Rad	0.52	2.03E+02	2.56E-07	0.20%	--	-	-
118-D-2:1	118-D-2:1_Shallow Focused	10098-97-2	Strontium-90	Rad	2.01	2.27E+00	8.85E-05	69.62%	--	-	-
118-D-2:1	118-D-2:1_Shallow Focused	10028-17-8	Tritium	Rad	11.2	6.23E+02	1.80E-06	1.41%	--	-	-
Total Radiological Risk Estimate							**1.27E-04**			**0.00E+00**	
118-D-2:1	118-D-2:1_Shallow Focused	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	2.21%
118-D-2:1	118-D-2:1_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.48	--	-	-	4.00E+02	1.20E-03	35.34%
118-D-2:1	118-D-2:1_Shallow Focused	7782-49-2	Selenium	Non-Rad	0.84	--	-	-	4.00E+02	2.10E-03	61.85%
118-D-2:1	118-D-2:1_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	1.1	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	1.6	--	-	-	--	-	-
118-D-2:1	118-D-2:1_Shallow Focused	94-82-6	2,4-DB[4-(2,4-Dichlorophenoxy)butanoic acid]	Non-Rad	0.013	--	-	-	6.40E+02	2.03E-05	0.60%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.40E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.27E-04**				

118-D-2:2	118-D-2:2: Sample Area A_Shallow	10028-17-8	Tritium	Rad	0.0152	6.23E+02	2.44E-09	100.00%	--	-	-
Total Radiological Risk Estimate							**2.44E-09**				
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7440-42-8	Boron	Non-Rad	2.3	--	-	-	1.60E+04	1.44E-04	0.40%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-92-1	Lead	Non-Rad	24.4	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.553	--	-	-	2.40E+02	2.30E-03	6.35%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-97-6	Mercury	Non-Rad	0.77	--	-	-	2.40E+01	3.21E-02	88.37%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	7439-98-7	Molybdenum	Non-Rad	0.67	--	-	-	4.00E+02	1.68E-03	4.61%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	6.91	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	9.21	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	120-12-7	Anthracene	Non-Rad	0.01	--	-	-	2.40E+04	4.17E-07	0.00%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.031	5.00E-01	6.20E-08	7.61%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.04	1.37E+00	2.92E-08	3.58%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.086	1.37E-01	6.28E-07	77.02%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.032	1.37E+00	2.34E-08	2.87%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.036	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.046	1.37E+00	3.36E-08	4.12%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	218-01-9	Chrysene	Non-Rad	0.037	1.37E+01	2.70E-09	0.33%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	206-44-0	Fluoranthene	Non-Rad	0.061	--	-	-	3.20E+03	1.91E-05	0.05%
118-D-2:2	118-D-2:2: Sample Area A_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.05	1.37E+00	3.65E-08	4.48%	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	85-01-8	Phenanthrene	Non-Rad	0.093	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area A_Shallow	129-00-0	Pyrene	Non-Rad	0.19	--	-	-	2.40E+03	7.92E-05	0.22%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS ND.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.15E-07**			**3.63E-02**	
Total Non-Radiological and Radiological Risk Estimate							**8.18E-07**				
118-D-2:2	118-D-2:2: Sample Area B_Shallow	14762-75-5	Carbon-14	Rad	0.301	8.10E+01	3.72E-07	7.47%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	14133-76-7	Technetium-99	Rad	0.363	1.50E+00	3.87E-06	77.72%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	10028-17-8	Tritium	Rad	0.0287	6.23E+02	7.37E-07	14.81%	--	-	-
Total Radiological Risk Estimate							**4.98E-06**				
118-D-2:2	118-D-2:2: Sample Area B_Shallow	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	3.55%
118-D-2:2	118-D-2:2: Sample Area B_Shallow	7782-49-2	Selenium	Non-Rad	1	--	-	-	4.00E+02	2.50E-03	94.72%
118-D-2:2	118-D-2:2: Sample Area B_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	24	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	41	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	120-12-7	Anthracene	Non-Rad	0.005	--	-	-	2.40E+04	2.08E-07	0.01%
118-D-2:2	118-D-2:2: Sample Area B_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.0055	5.00E-01	1.10E-08	0.11%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.054	1.37E+00	3.94E-08	0.38%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.042	1.37E-01	3.07E-07	2.95%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.052	1.37E+00	3.80E-08	0.37%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.026	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.027	1.37E+00	1.97E-08	0.19%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	218-01-9	Chrysene	Non-Rad	0.057	1.37E+01	4.16E-09	0.04%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	206-44-0	Fluoranthene	Non-Rad	0.068	--	-	-	3.20E+03	2.13E-05	0.81%
118-D-2:2	118-D-2:2: Sample Area B_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.033	1.37E+00	2.41E-08	0.23%	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	85-01-8	Phenanthrene	Non-Rad	0.029	--	-	-	--	-	-
118-D-2:2	118-D-2:2: Sample Area B_Shallow	129-00-0	Pyrene	Non-Rad	0.058	--	-	-	2.40E+03	2.42E-05	0.92%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.04E-05**			**2.64E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.54E-05**				
118-D-3:1	118-D-3:1_Shallow Zone 1	10028-17-8	Tritium	Rad	0.0276	6.23E+02	4.43E-09	100.00%	--	-	-
Total Radiological Risk Estimate							**4.43E-09**				
118-D-3:1	118-D-3:1_Shallow Zone 1	7439-98-7	Molybdenum	Non-Rad	0.24	--	-	-	4.00E+02	6.00E-04	87.71%
118-D-3:1	118-D-3:1_Shallow Zone 1	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	1.2	--	-	-	1.28E+05	9.38E-06	1.37%
118-D-3:1	118-D-3:1_Shallow Zone 1	56-55-3	Benzo(a)anthracene	Non-Rad	0.023	1.37E+00	1.68E-08	5.93%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	50-32-8	Benzo(a)pyrene	Non-Rad	0.029	1.37E-01	2.12E-07	74.79%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.03	1.37E+00	2.19E-08	7.74%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	191-24-2	Benzo(ghi)perylene	Non-Rad	0.02	--	-	-	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.019	1.37E+00	1.39E-08	4.90%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	218-01-9	Chrysene	Non-Rad	0.027	1.37E+01	1.97E-09	0.70%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	206-44-0	Fluoranthene	Non-Rad	0.035	--	-	-	3.20E+03	1.09E-05	1.60%
118-D-3:1	118-D-3:1_Shallow Zone 1	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.023	1.37E+00	1.68E-08	5.93%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 1	129-00-0	Pyrene	Non-Rad	0.043	--	-	-	2.40E+03	1.79E-05	2.62%
118-D-3:1	118-D-3:1_Shallow Zone 1	75-09-2	Methylene chloride	Non-Rad	0.022	5.00E+02	4.40E-11	0.02%	4.80E+02	4.58E-05	6.70%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.83E-07**			**6.84E-04**	
Total Non-Radiological and Radiological Risk Estimate							**2.87E-07**			**6.84E-04**	
118-D-3:1	118-D-3:1_Deep Zone 1	13981-37-8	Nickel-63	Rad	6.29	6.08E+02	6.60E-06	89.96%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 1	10028-17-8	Tritium	Rad	0.0264	6.23E+02	7.37E-07	10.04%	--	-	-
Total Radiological Risk Estimate							**7.34E-06**			**4.74E-03**	
118-D-3:1	118-D-3:1_Shallow Zone 2	13981-37-8	Nickel-63	Rad	7.72	6.08E+02	1.27E-05	6.96%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	PU-239/240	Plutonium-239/240	Rad	0.138	2.03E+02	6.80E-08	0.37%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	10098-97-2	Strontium-90	Rad	0.384	2.27E+00	1.69E-05	92.67%	--	-	-
Total Radiological Risk Estimate							**1.83E-05**				
118-D-3:1	118-D-3:1_Shallow Zone 2	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	2.51%
118-D-3:1	118-D-3:1_Shallow Zone 2	7439-98-7	Molybdenum	Non-Rad	1.1	--	-	-	4.00E+02	2.75E-03	92.00%
118-D-3:1	118-D-3:1_Shallow Zone 2	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	21	--	-	-	1.28E+05	1.64E-04	5.49%
118-D-3:1	118-D-3:1_Shallow Zone 2	67-64-1	Acetone	Non-Rad	0.0088	--	-	-	7.20E+04	1.22E-07	0.00%
118-D-3:1	118-D-3:1_Shallow Zone 2	56-55-3	Benzo(a)anthracene	Non-Rad	0.013	1.37E+00	9.49E-09	2.38%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	50-32-8	Benzo(a)pyrene	Non-Rad	0.046	1.37E-01	3.36E-07	84.22%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.049	1.37E+00	3.58E-08	8.97%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	191-24-2	Benzo(ghi)perylene	Non-Rad	0.022	--	-	-	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.021	1.37E+00	1.53E-08	3.84%	--	-	-
118-D-3:1	118-D-3:1_Shallow Zone 2	218-01-9	Chrysene	Non-Rad	0.032	1.37E+01	2.34E-09	0.59%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.99E-07**			**2.99E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.87E-05**				
118-D-3:1	118-D-3:1_Deep Zone 2	10045-97-3	Cesium-137	Rad	1.59	4.40E+00	3.61E-05	25.94%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	10198-40-0	Cobalt-60	Rad	0.159	3.10E+00	5.13E-06	3.68%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	14683-23-9	Europium-152	Rad	0.123	3.66E+00	3.36E-06	2.41%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	13981-37-8	Nickel-63	Rad	515	6.08E+02	8.47E-05	60.80%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	PU-239/240	Plutonium-239/240	Rad	0.132	2.03E+02	6.50E-08	0.05%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	10098-97-2	Strontium-90	Rad	0.225	2.27E+00	9.91E-06	7.11%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 2	10028-17-8	Tritium	Rad	0.0568	6.23E+02	9.12E-09	0.01%	--	-	-
Total Radiological Risk Estimate							**1.39E-04**			**0.00E+00**	
118-D-3:1	118-D-3:1_Deep Zone 3	14762-75-5	Carbon-14	Rad	0.233	8.10E+01	2.88E-07	14.84%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 3	14683-23-9	Europium-152	Rad	0.0592	3.66E+00	1.62E-06	83.46%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 3	PU-239/240	Plutonium-239/240	Rad	0.0405	2.03E+02	2.00E-08	1.03%	--	-	-
118-D-3:1	118-D-3:1_Deep Zone 3	10028-17-8	Tritium	Rad	0.0808	6.23E+02	1.30E-08	0.67%	--	-	-
Total Radiological Risk Estimate							**1.94E-06**			**0.00E+00**	
118-D-3:2	118-D-3:2_Shallow Zone	10028-17-8	Tritium	Rad	0.0627	6.23E+02	7.37E-07	100.00%	--	-	-
Total Radiological Risk Estimate							**7.37E-07**				
118-D-3:2	118-D-3:2_Shallow Zone	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	97.33%
118-D-3:2	118-D-3:2_Shallow Zone	75-09-2	Methylene chloride	Non-Rad	0.0014	5.00E+02	9.60E-07	100.00%	4.80E+02	2.92E-06	2.67%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.60E-07**			**1.09E-04**	
Total Non-Radiological and Radiological Risk Estimate							**1.70E-06**				
118-D-3:2	118-D-3:2_Shallow Focused	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	100.00%
118-D-3:2	118-D-3:2_Shallow Focused	131-11-3	Dimethyl phthalate	Non-Rad	0.55	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.06E-04**	
120-D-1	120-D-1_OB Lift 1	7440-42-8	Boron	Non-Rad	16.5	--	-	-	1.60E+04	1.03E-03	40.02%
120-D-1	120-D-1_OB Lift 1	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	27.16%
120-D-1	120-D-1_OB Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.203	--	-	-	2.40E+02	8.46E-04	32.82%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.58E-03**	
120-D-1	120-D-1_OB Lift 2	7439-98-7	Molybdenum	Non-Rad	0.44	--	-	-	4.00E+02	1.10E-03	51.36%
120-D-1	120-D-1_OB Lift 2	18540-29-9	Hexavalent Chromium	Non-Rad	0.25	--	-	-	2.40E+02	1.04E-03	48.64%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**2.14E-03**	
120-D-1	120-D-1_OB Lift 3	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	42.97%
120-D-1	120-D-1_OB Lift 3	18540-29-9	Hexavalent Chromium	Non-Rad	0.25	--	-	-	2.40E+02	1.04E-03	66.31%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.72E-03**	
100-D-50:6	183-D Clearwell_183DVL1 Lift 1	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	40.00%
100-D-50:6	183-D Clearwell_183DVL1 Lift 1	18540-29-9	Hexavalent Chromium	Non-Rad	0.221	--	-	-	2.40E+02	9.21E-04	56.67%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.57E-03**	
1607-D2:5	1607-D2:5_Shallow	7440-42-8	Boron	Non-Rad	2.1	--	-	-	1.60E+04	1.31E-04	2.76%
1607-D2:5	1607-D2:5_Shallow	18540-29-9	Hexavalent chromium	Non-Rad	0.282	--	-	-	2.40E+02	1.18E-03	24.70%
1607-D2:5	1607-D2:5_Shallow	7439-98-7	Molybdenum	Non-Rad	0.53	--	-	-	4.00E+02	1.33E-03	27.86%
1607-D2:5	1607-D2:5_Shallow	7782-49-2	Selenium	Non-Rad	0.85	--	-	-	4.00E+02	2.13E-03	44.68%
1607-D2:5	1607-D2:5_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0055	1.37E+00	4.02E-09	5.33%	--	-	-
1607-D2:5	1607-D2:5_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0086	1.37E-01	6.28E-08	83.40%	--	-	-
1607-D2:5	1607-D2:5_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.011	1.37E+00	8.03E-09	10.67%	--	-	-
1607-D2:5	1607-D2:5_Shallow	218-01-9	Chrysene	Non-Rad	0.0062	1.37E+01	4.53E-10	0.60%	--	-	-

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS ND.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**7.53E-08**			**4.76E-03**	
1607-D2:5	1607-D2:5_SPA	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	1.66%
1607-D2:5	1607-D2:5_SPA	18540-29-9	Hexavalent chromium	Non-Rad	0.327	--	-	-	2.40E+02	1.36E-03	24.16%
1607-D2:5	1607-D2:5_SPA	7439-98-7	Molybdenum	Non-Rad	0.45	--	-	-	4.00E+02	1.13E-03	19.95%
1607-D2:5	1607-D2:5_SPA	7782-49-2	Selenium	Non-Rad	0.89	--	-	-	4.00E+02	2.23E-03	39.45%
1607-D2:5	1607-D2:5_SPA	16984-48-8	Fluoride	Non-Rad	4	--	-	-	4.80E+03	8.33E-04	14.78%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.64E-03**	
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7440-42-8	Boron	Non-Rad	25.7	--	-	-	1.60E+04	1.61E-03	8.45%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.317	--	-	-	2.40E+02	1.32E-03	6.95%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7439-92-1	Lead	Non-Rad	17.3	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	7439-98-7	Molybdenum	Non-Rad	0.31	--	-	-	4.00E+02	7.75E-04	4.08%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	21	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	9.1	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	95-95-4	2,4,5-Trichlorophenol	Non-Rad	0.016	--	-	-	8.00E+03	2.00E-06	0.01%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0011	2.94E+00	3.74E-10	0.07%		-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0029	2.94E+00	9.86E-10	0.19%	4.00E+01	7.25E-05	0.38%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.024	5.00E-01	4.80E-08	9.47%	1.60E+00	1.50E-02	78.90%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.017	5.00E-01	3.40E-08	6.71%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	83-32-9	Acenaphthene	Non-Rad	0.016	--	-	-	4.80E+03	3.33E-06	0.02%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.032	1.37E+00	2.34E-08	4.61%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.047	1.37E-01	3.43E-07	67.69%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.037	1.37E+00	2.70E-08	5.33%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.043	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.013	1.37E+00	9.49E-09	1.87%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	218-01-9	Chrysene	Non-Rad	0.029	1.37E+01	2.12E-09	0.42%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	206-44-0	Fluoranthene	Non-Rad	0.078	--	-	-	3.20E+03	2.44E-05	0.13%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	86-73-7	Fluorene	Non-Rad	0.012	--	-	-	3.20E+03	3.75E-06	0.02%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.025	1.37E+00	1.83E-08	3.60%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	85-01-8	Phenanthrene	Non-Rad	0.07	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	129-00-0	Pyrene	Non-Rad	0.082	--	-	-	2.40E+03	3.42E-05	0.18%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	541-73-1	1,3-Dichlorobenzene	Non-Rad	0.014	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	106-46-7	1,4-Dichlorobenzene	Non-Rad	0.014	1.85E+02	7.56E-11	0.01%	5.60E+03	2.50E-06	0.01%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	95-95-4	2,4,5-Trichlorophenol	Non-Rad	0.016	--	-	-	8.00E+03	2.00E-06	0.01%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	88-06-2	2,4,6-Trichlorophenol	Non-Rad	0.013	9.09E+01	1.43E-10	0.03%	8.00E+01	1.63E-04	0.85%
100-H-28:2 & 100-H-42	100-H-28:2 Excav1_Shallow	91-58-7	2-Chloronaphthalene	Non-Rad	0.018	--	-	-	6.40E+03	2.81E-06	0.01%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.07E-07**			**1.90E-02**	
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	14683-23-9	Europium-152	Rad	0.0151	3.66E+00	4.13E-07	100.00%	--	-	-
Total Radiological Risk Estimate							**4.13E-07**				
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	7440-42-8	Boron	Non-Rad	1	--	-	-	1.60E+04	6.25E-05	3.94%
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.356	--	-	-	2.40E+02	1.48E-03	93.45%
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	7439-92-1	Lead	Non-Rad	12	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	4.6	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	3.1	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.005	2.94E+00	1.70E-09	0.68%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.00068	2.94E+00	2.31E-10	0.09%	4.00E+01	1.70E-05	1.07%
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.016	1.37E+00	1.17E-08	4.69%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.026	1.37E-01	1.90E-07	76.26%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.028	1.37E+00	2.04E-08	8.21%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.025	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.011	1.37E+00	8.03E-09	3.23%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	218-01-9	Chrysene	Non-Rad	0.023	1.37E+01	1.68E-09	0.67%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	206-44-0	Fluoranthene	Non-Rad	0.033	--	-	-	3.20E+03	1.03E-05	0.65%
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.021	1.37E+00	1.53E-08	6.16%	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	85-01-8	Phenanthrene	Non-Rad	0.016	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-42 Excav2_Shallow	129-00-0	Pyrene	Non-Rad	0.034	--	-	-	2.40E+03	1.42E-05	0.89%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.49E-07**			**1.59E-03**	
Total Non-Radiological and Radiological Risk Estimate							**6.61E-07**				
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	14762-75-5	Carbon-14	Rad	0.091	8.10E+01	1.12E-07	6.68%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	14683-23-9	Europium-152	Rad	0.0574	3.66E+00	1.57E-06	93.32%	--	-	-
Total Radiological Risk Estimate							**1.68E-06**				
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	7440-42-8	Boron	Non-Rad	3.2	--	-	-	1.60E+04	2.00E-04	0.64%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.305	--	-	-	2.40E+02	1.27E-03	4.09%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	7439-92-1	Lead	Non-Rad	65	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	7439-98-7	Molybdenum	Non-Rad	0.29	--	-	-	4.00E+02	7.25E-04	2.33%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	18	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	7.3	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0017	2.94E+00	5.78E-10	0.14%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0027	2.94E+00	9.18E-10	0.22%	4.00E+01	6.75E-05	0.22%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	11097-69-1	Aroclor-1254	Non-Rad	0.046	5.00E-01	9.20E-08	21.80%	1.60E+00	2.88E-02	92.56%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	11096-82-5	Aroclor-1260	Non-Rad	0.048	5.00E-01	9.60E-08	22.74%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	83-32-9	Acenaphthene	Non-Rad	0.027	--	-	-	4.80E+03	5.63E-06	0.02%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	120-12-7	Anthracene	Non-Rad	0.026	--	-	-	2.40E+04	1.08E-06	0.00%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.018	1.37E+00	1.31E-08	3.11%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.021	1.37E-01	1.53E-07	36.32%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.021	1.37E+00	1.53E-08	3.63%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.041				--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.019	1.37E+00	1.39E-08	3.29%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	218-01-9	Chrysene	Non-Rad	0.056	1.37E+01	4.09E-09	0.97%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	53-70-3	Dibenz[a,h]anthracene	Non-Rad	0.015	1.37E+00	1.10E-08	2.59%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	206-44-0	Fluoranthene	Non-Rad	0.046	--	-	-	3.20E+03	1.44E-05	0.05%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	86-73-7	Fluorene	Non-Rad	0.019	--	-	-	3.20E+03	5.94E-06	0.02%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.03	1.37E+00	2.19E-08	5.19%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	85-01-8	Phenanthrene	Non-Rad	0.13	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_SPA	129-00-0	Pyrene	Non-Rad	0.049	--	-	-	2.40E+03	2.04E-05	0.07%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.22E-07**			**3.11E-02**	
Total Non-Radiological and Radiological Risk Estimate							**2.10E-06**				
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	5.61%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.365	--	-	-	2.40E+02	1.52E-03	90.93%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	7439-92-1	Lead	Non-Rad	29.1	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	4.7	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	2.7	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.001	2.94E+00	3.40E-10	0.54%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	83-32-9	Acenaphthene	Non-Rad	0.013	--	-	-	4.80E+03	2.71E-06	0.16%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.037	1.37E+00	2.70E-08	42.94%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.032	1.37E+00	2.34E-08	37.14%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.013	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.013	1.37E+00	9.49E-09	15.09%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	218-01-9	Chrysene	Non-Rad	0.037	1.37E+01	2.70E-09	4.29%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	206-44-0	Fluoranthene	Non-Rad	0.058	--	-	-	3.20E+03	1.81E-05	1.08%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	86-73-7	Fluorene	Non-Rad	0.028	--	-	-	3.20E+03	8.75E-06	0.52%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	85-01-8	Phenanthrene	Non-Rad	0.043	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_OB	129-00-0	Pyrene	Non-Rad	0.068	--	-	-	2.40E+03	2.83E-05	1.69%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.29E-08**			**1.67E-03**	
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	13981-37-8	Nickel-63	Rad	8.99	6.08E+02	1.48E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.48E-06**				
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7440-42-8	Boron	Non-Rad	3.6	--	-	-	1.60E+04	2.25E-04	0.11%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7440-47-3	Chromium	Non-Rad	21.2	--	-	-	1.20E+05	1.77E-04	0.08%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.212	--	-	-	2.40E+02	8.83E-04	0.42%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-92-1	Lead	Non-Rad	21.1	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	7439-97-6	Mercury	Non-Rad	4.9	--	-	0.00%	2.40E+01	2.04E-01	96.41%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	48	--	-		--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	21	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00026	2.94E+00	8.84E-11	0.03%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.00065	2.94E+00	2.21E-10	0.07%	4.00E+01	1.63E-05	0.01%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11097-69-1	Aroclor-1254	Non-Rad	0.01	5.00E-01	2.00E-08	5.89%	1.60E+00	6.25E-03	2.95%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	11096-82-5	Aroclor-1260	Non-Rad	0.034	5.00E-01	6.80E-08	20.03%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	83-32-9	Acenaphthene	Non-Rad	0.013	--	-	-	4.80E+03	2.71E-06	0.00%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	56-55-3	Benzo(a)anthracene	Non-Rad	0.024	1.37E+00	1.75E-08	5.16%	--	-	-

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.027	1.37E-01	1.97E-07	58.06%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.026	1.37E+00	1.90E-08	5.59%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	191-24-2	Benzo(ghi)perylene	Non-Rad	0.008	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.01	1.37E+00	7.30E-09	2.15%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	218-01-9	Chrysene	Non-Rad	0.021	1.37E+01	1.53E-09	0.45%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	131-11-3	Dimethyl phthalate	Non-Rad	0.043	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	206-44-0	Fluoranthene	Non-Rad	0.059	--	-	-	3.20E+03	1.84E-05	0.01%
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.012	1.37E+00	8.76E-09	2.58%	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	85-01-8	Phenanthrene	Non-Rad	0.048	--	-	-	--	-	-
100-H-28:2 & 100-H-42	100-H-28:2 & 100-H-42_Shallow Focused	129-00-0	Pyrene	Non-Rad	0.059	--	-	-	2.40E+03	2.46E-05	0.01%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.40E-07**			**2.12E-01**	
Total Non-Radiological and Radiological Risk Estimate							**1.82E-06**				
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7440-42-8	Boron	Non-Rad	2.4	--	-	-	1.60E+04	1.50E-04	3.48%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.313	--	-	-	2.40E+02	1.30E-03	30.29%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7439-92-1	Lead	Non-Rad	24	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7439-98-7	molybdenum	Non-Rad	0.286	--	-	-	4.00E+02	7.15E-04	16.61%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	7782-49-2	Selenium	Non-Rad	0.781	--	-	-	4.00E+02	1.95E-03	45.36%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.00877	5.00E-01	1.75E-08	1.87%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00435	2.94E+00	1.48E-09	0.16%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.000447	2.94E+00	1.52E-10	0.02%	4.00E+01	1.12E-05	0.26%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	83-32-9	Acenaphthene	Non-Rad	0.022	--	-	-	4.80E+03	4.58E-06	0.11%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	120-12-7	Anthracene	Non-Rad	0.0197	--	-	-	2.40E+04	8.21E-07	0.02%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0534	1.37E+00	3.90E-08	4.15%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.0472	1.37E-01	3.45E-07	36.70%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0518	1.37E+00	3.78E-08	4.03%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0987	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.62	1.37E+00	4.53E-07	48.21%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	218-01-9	Chrysene	Non-Rad	0.187	1.37E+01	1.37E-08	1.45%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	53-70-3	Dibenz[a,h]anthracene	Non-Rad	0.018	1.37E+00	1.31E-08	1.40%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	206-44-0	Fluoranthene	Non-Rad	0.073	--	-	-	3.20E+03	2.28E-05	0.53%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	86-73-7	Fluorene	Non-Rad	0.019	--	-	-	3.20E+03	5.94E-06	0.14%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.026	1.37E+00	1.90E-08	2.02%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	85-01-8	Phenanthrene	Non-Rad	0.12	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:5_Shallow	129-00-0	Pyrene	Non-Rad	0.331	--	-	-	2.40E+03	1.38E-04	3.20%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.39E-07**			**4.30E-03**	
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	14683-23-9	Europium-152	Rad	0.0921	3.66E+00	2.52E-06	64.76%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	15585-10-1	Europium-154	Rad	0.0448	4.40E+00	1.02E-06	26.21%			
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	14391-16-3	Europium-155	Rad	0.077	3.27E+02	2.35E-08	0.61%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	13981-37-8	Nickel-63	Rad	1.99	6.08E+02	3.27E-07	8.42%	--	-	-
Total Radiological Risk Estimate							**3.89E-06**				
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	7440-42-8	Boron	Non-Rad	2.3	--	-	-	1.60E+04	**1.44E-04**	9.23%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	18540-29-9	Hexavalent Chromium	Non-Rad	0.322	--	-	-	2.40E+02	**1.34E-03**	86.13%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	7439-92-1	Lead	Non-Rad	28.2	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	3.8	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	6.1	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	Non-Rad	4.1	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	11096-82-5	Aroclor-1260	Non-Rad	0.0132	5.00E-01	2.64E-08	7.66%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.00078	2.94E+00	2.65E-10	0.08%	4.00E+01	**1.95E-05**	1.25%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	83-32-9	Acenaphthene	Non-Rad	0.0144	--	-	-	4.80E+03	3.00E-06	0.19%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	120-12-7	Anthracene	Non-Rad	0.0233	--	-	-	2.40E+04	9.71E-07	0.06%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	56-55-3	Benzo(a)anthracene	Non-Rad	0.0338	1.37E+00	2.47E-08	7.16%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	50-32-8	Benzo(a)pyrene	Non-Rad	0.0325	1.37E-01	2.37E-07	68.81%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0413	1.37E+00	3.01E-08	8.74%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0221	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.012	1.37E+00	8.76E-09	2.54%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	218-01-9	Chrysene	Non-Rad	0.0269	1.37E+01	1.96E-09	0.57%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	206-44-0	Fluoranthene	Non-Rad	0.0585	--	-	-	3.20E+03	**1.83E-05**	1.17%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	86-73-7	Fluorene	Non-Rad	0.0112	--	-	-	3.20E+03	3.50E-06	0.22%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.021	1.37E+00	1.53E-08	4.45%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	85-01-8	Phenanthrene	Non-Rad	0.0516	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB North	129-00-0	Pyrene	Non-Rad	0.065	--	-	-	2.40E+03	2.71E-05	1.74%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**3.45E-07**			**1.56E-03**	
Total Non-Radiological and Radiological Risk Estimate							**4.23E-06**				
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	10198-40-0	Cobalt-60	Rad	0.038	3.10E+00	1.23E-06	5.57%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	14683-23-9	Europium-152	Rad	0.102	3.66E+00	2.79E-06	12.65%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	14683-23-9	Europium-152	Rad	0.038	3.66E+00	2.52E-06	11.42%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	14391-16-3	Europium-155	Rad	0.087	3.27E+02	2.66E-08	0.12%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	13981-37-8	Nickel-63	Rad	3.802	6.08E+02	6.25E-07	2.84%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	10098-97-2	Strontium-90	Rad	0.337	2.27E+00	1.48E-05	67.40%	--	-	-
Total Radiological Risk Estimate							**2.20E-05**				
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	7440-42-8	Boron	Non-Rad	2.75	--	-	-	1.60E+04	**1.72E-04**	2.34%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	18540-29-9	Hexavalent Chromium	Non-Rad	0.465	--	-	-	2.40E+02	**1.94E-03**	26.41%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	7439-92-1	Lead	Non-Rad	24.2	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	7439-98-7	Molybdenum	Non-Rad	0.52	--	-	-	4.00E+02	1.30E-03	17.72%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	Non-Rad	10	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	11097-69-1	Aroclor-1254	Non-Rad	0.0058	5.00E-01	1.16E-08	1.71%	1.60E+00	3.63E-03	49.41%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	11096-82-5	Aroclor-1260	Non-Rad	0.00415	5.00E-01	8.30E-09	1.22%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	83-32-9	Acenaphthene	Non-Rad	0.0678	--	-	-	4.80E+03	**1.41E-05**	0.19%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	120-12-7	Anthracene	Non-Rad	0.0294	--	-	-	2.40E+04	**1.23E-06**	0.02%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	56-55-3	Benzo(a)anthracene	Non-Rad	0.022	1.37E+00	1.61E-08	2.37%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	50-32-8	Benzo(a)pyrene	Non-Rad	0.08	1.37E-01	5.84E-07	86.10%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.02	1.37E+00	1.46E-08	2.15%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	191-24-2	Benzo(ghi)perylene	Non-Rad	0.00946	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0474	1.37E+00	3.46E-08	5.10%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	218-01-9	Chrysene	Non-Rad	0.0182	1.37E+01	1.33E-09	0.20%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	206-44-0	Fluoranthene	Non-Rad	0.0318	--	-	-	3.20E+03	**9.94E-06**	0.14%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	86-73-7	Fluorene	Non-Rad	0.0196	--	-	-	3.20E+03	6.13E-06	0.08%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	85-01-8	Phenanthrene	Non-Rad	0.105	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	129-00-0	Pyrene	Non-Rad	0.357	--	-	-	2.40E+03	**1.49E-04**	2.03%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_OB South	60-57-1	Dieldrin	Non-Rad	0.000489	6.25E-02	7.82E-09	1.15%	4.00E+00	1.22E-04	1.67%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**6.78E-07**			**7.34E-03**	
Total Non-Radiological and Radiological Risk Estimate							**2.27E-05**				
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7440-42-8	Boron	Non-Rad	1.7	--	-	-	1.60E+04	1.06E-04	1.86%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7440-47-3	Chromium	Non-Rad	19	--	-	-	1.20E+05	1.58E-04	2.77%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.278	--	-	-	2.40E+02	1.16E-03	20.24%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7439-98-7	Molybdenum	Non-Rad	0.32	--	-	-	4.00E+02	8.00E-04	13.96%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	7782-49-2	Selenium	Non-Rad	1.4	--	-	-	4.00E+02	3.50E-03	61.16%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.00037	2.94E+00	1.26E-10	100.00%	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3, 100-H-28:5 and 100-H-44_Shallow_Focused	131-11-3	Dimethyl phthalate	Non-Rad	0.095	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.26E-10**			**5.72E-03**	
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-42-8	Boron	Non-Rad	17.6	--	-	-	1.60E+04	**1.10E-03**	0.44%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-50-8	Copper	Non-Rad	24.9	--	-	-	3.20E+03	7.78E-03	3.12%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.421	--	-	-	2.40E+02	1.75E-03	0.70%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-92-1	Lead	Non-Rad	27.2	--	-	-	--	-	-
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-97-6	Mercury	Non-Rad	4.85	--	-	-	2.40E+01	2.02E-01	81.07%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7439-98-7	Molybdenum	Non-Rad	1.66	--	-	-	4.00E+02	4.15E-03	1.66%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	7440-22-4	Silver	Non-Rad	3.14	--	-	-	4.00E+02	7.85E-03	3.15%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.0393	5.00E-01	7.86E-08	77.36%	1.60E+00	2.46E-02	9.85%
100-H-28:3, 100-H-28:5 and 100-H-44	100-H-28:3 and 100-H-44_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.0115	5.00E-01	2.30E-08	22.64%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.02E-07**			**2.49E-01**	
100-H-28:4	100-H-28:4_Shallow	7440-42-8	Boron	Non-Rad	2.4	--	-	-	1.60E+04	1.50E-04	1.88%
100-H-28:4	100-H-28:4_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.272	--	-	-	2.40E+02	1.13E-03	14.23%
100-H-28:4	100-H-28:4_Shallow	7439-92-1	Lead	Non-Rad	37.3	--	-	-	--	-	-
100-H-28:4	100-H-28:4_Shallow	7439-98-7	Molybdenum	Non-Rad	0.36	--	-	-	4.00E+02	9.00E-04	11.30%
100-H-28:4	100-H-28:4_Shallow	7782-49-2	Selenium	Non-Rad	0.87	--	-	-	4.00E+02	2.18E-03	27.31%
100-H-28:4	100-H-28:4_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.0054	5.00E-01	1.08E-08	7.30%	1.60E+00	3.38E-03	42.38%
100-H-28:4	100-H-28:4_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.061	5.00E-01	1.22E-07	82.49%	--	-	-
100-H-28:4	100-H-28:4_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0011	2.94E+00	3.74E-10	0.25%	--	-	-
100-H-28:4	100-H-28:4_Shallow	60-57-1	Dieldrin	Non-Rad	0.00092	6.25E-02	1.47E-08	9.95%	4.00E+00	2.30E-04	2.89%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS ND.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.48E-07**			**7.96E-03**	
100-H-28:4	100-H-28:4_Shallow Focused	7440-42-8	Boron	Non-Rad	6.8	--	-	-	1.60E+04	4.25E-04	5.62%
100-H-28:4	100-H-28:4_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.435	--	-	-	2.40E+02	1.81E-03	23.98%
100-H-28:4	100-H-28:4_Shallow Focused	7439-92-1	Lead	Non-Rad	35.9	--	-	-	--	-	-
100-H-28:4	100-H-28:4_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	9.92%
100-H-28:4	100-H-28:4_Shallow Focused	11097-69-1	Aroclor-1254	Non-Rad	0.0071	5.00E-01	1.42E-08	2.56%	1.60E+00	4.44E-03	58.72%
100-H-28:4	100-H-28:4_Shallow Focused	11096-82-5	Aroclor-1260	Non-Rad	0.27	5.00E-01	5.40E-07	97.16%	--	-	-
100-H-28:4	100-H-28:4_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0046	2.94E+00	1.56E-09	0.28%	4.00E+01	1.15E-04	1.52%
100-H-28:4	100-H-28:4_Shallow Focused	72-43-5	Methoxychlor	Non-Rad	0.0011	--	-	-	4.00E+02	2.75E-06	0.04%
100-H-28:4	100-H-28:4_Shallow Focused	131-11-3	Dimethyl phthalate	Non-Rad	0.056	--	-	-	--	-	-
100-H-28:4	100-H-28:4_Shallow Focused	129-00-0	Pyrene	Non-Rad	0.035	--	-	-	2.40E+03	1.46E-05	0.19%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.55E-07**			**7.55E-03**	
100-H-28:7	100-H-28:7_Shallow	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-09	7.75%
100-H-28:7	100-H-28:7_Shallow	7440-47-3	Chromium	Non-Rad	20.9	--	-	-	1.20E+05	1.74E-08	15.42%
100-H-28:7	100-H-28:7_Shallow	7439-92-1	Lead	Non-Rad	13.8	--	-	-	--	-	-
100-H-28:7	100-H-28:7_Shallow	7439-98-7	Molybdenum	Non-Rad	0.36	--	-	-	4.00E+02	9.00E-08	79.68%
100-H-28:7	100-H-28:7_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.02	1.37E-01	1.00E-06	20.00%	--	-	-
100-H-28:7	100-H-28:7_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0075	1.37E+00	1.00E-06	20.00%	--	-	-
100-H-28:7	100-H-28:7_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.027	1.37E+00	1.00E-06	20.00%	--	-	-
100-H-28:7	100-H-28:7_Shallow	218-01-9	Chrysene	Non-Rad	0.0063	1.37E+01	1.00E-06	20.00%	--	-	-
100-H-28:7	100-H-28:7_Shallow	206-44-0	Fluoranthene	Non-Rad	0.048	--	-	-	3.20E+03	1.50E-09	1.33%
100-H-28:7	100-H-28:7_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.017	1.37E+00	1.00E-06	20.00%	--	-	-
100-H-28:7	100-H-28:7_Shallow	85-01-8	Phenanthrene	Non-Rad	0.038	--	-	-	--	-	-
100-H-28:7	100-H-28:7_Shallow	129-00-0	Pyrene	Non-Rad	0.097	--	-	-	2.40E+03	4.04E-09	3.58%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.00E-06**			**1.13E-07**	
100-H-43	100-H-43_Shallow	7440-42-8	Boron	Non-Rad	1.4	--	-	-	1.60E+04	8.75E-05	1.27%
100-H-43	100-H-43_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.305	--	-	-	2.40E+02	1.27E-03	18.51%
100-H-43	100-H-43_Shallow	7439-92-1	Lead	Non-Rad	55.4	--	-	-	--	-	-
100-H-43	100-H-43_Shallow	7439-98-7	Molybdenum	Non-Rad	0.37	--	-	-	4.00E+02	9.25E-04	13.47%
100-H-43	100-H-43_Shallow	7782-49-2	Selenium	Non-Rad	0.98	--	-	-	4.00E+02	2.45E-03	35.68%
100-H-43	100-H-43_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	19	--	-	-	--	-	-
100-H-43	100-H-43_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	7.8	--	-	-	--	-	-
100-H-43	100-H-43_Shallow	83-32-9	Acenaphthene	Non-Rad	0.014	--	-	-	4.80E+03	2.92E-06	0.04%
100-H-43	100-H-43_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.082	1.37E+00	5.99E-08	7.19%	--	-	-
100-H-43	100-H-43_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.081	1.37E-01	5.91E-07	71.06%	--	-	-
100-H-43	100-H-43_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.077	1.37E+00	5.62E-08	6.76%	--	-	-
100-H-43	100-H-43_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.043	--	-	-	--	-	-
100-H-43	100-H-43_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.041	1.37E+00	2.99E-08	3.60%	--	-	-
100-H-43	100-H-43_Shallow	218-01-9	Chrysene	Non-Rad	0.09	1.37E+01	6.57E-09	0.79%	--	-	-
100-H-43	100-H-43_Shallow	53-70-3	Dibenz[a,h]anthracene	Non-Rad	0.02	1.37E+00	1.46E-08	1.75%	--	-	-
100-H-43	100-H-43_Shallow	206-44-0	Fluoranthene	Non-Rad	0.069	--	-	-	3.20E+03	2.16E-05	0.31%
100-H-43	100-H-43_Shallow	86-73-7	Fluorene	Non-Rad	0.01	--	-	-	3.20E+03	3.13E-06	0.05%
100-H-43	100-H-43_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.076	1.37E+00	5.55E-08	6.67%	--	-	-
100-H-43	100-H-43_Shallow	85-01-8	Phenanthrene	Non-Rad	0.054	--	-	-	--	-	-
100-H-43	100-H-43_Shallow	129-00-0	Pyrene	Non-Rad	0.099	--	-	-	2.40E+03	4.13E-05	0.60%
100-H-43	100-H-43_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.003	5.00E-01	6.00E-09	0.72%	1.60E+00	1.88E-03	27.30%
100-H-43	100-H-43_Shallow	60-57-1	Dieldrin	Non-Rad	0.00076	6.25E-02	1.22E-08	1.46%	4.00E+00	1.90E-04	2.77%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.32E-07**			**6.87E-03**	
100-H-43	100-H-43_Shallow Focused	7440-42-8	Boron	Non-Rad	2	--	-	-	1.60E+04	1.25E-04	2.82%
100-H-43	100-H-43_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.227	--	-	-	2.40E+02	9.46E-04	21.35%
100-H-43	100-H-43_Shallow Focused	7439-92-1	Lead	Non-Rad	37.7	--	-	-	--	-	-
100-H-43	100-H-43_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.25	--	-	-	4.00E+02	6.25E-04	14.11%
100-H-43	100-H-43_Shallow Focused	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	45.71%
100-H-43	100-H-43_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	70	--	-	-	--	-	-
100-H-43	100-H-43_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	30	--	-	-	--	-	-
100-H-43	100-H-43_Shallow Focused	56-55-3	Benzo(a)anthracene	Non-Rad	0.0042	1.37E+00	3.07E-09	6.91%	--	-	-
100-H-43	100-H-43_Shallow Focused	218-01-9	Chrysene	Non-Rad	0.006	1.37E+01	4.38E-10	0.99%	--	-	-
100-H-43	100-H-43_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0025	2.94E+00	8.50E-10	1.92%	4.00E+01	6.25E-05	1.41%
100-H-43	100-H-43_Shallow Focused	60-57-1	Dieldrin	Non-Rad	0.0025	6.25E-02	4.00E-08	90.18%	4.00E+00	6.25E-04	14.11%
100-H-43	100-H-43_Shallow Focused	72-20-8	Endrin	Non-Rad	0.00053	--	-	-	2.40E+01	2.21E-05	0.50%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**4.44E-08**			**4.43E-03**	
100-H-43	100-H-43_SPA	7440-42-8	Boron	Non-Rad	1.9	--	-	-	1.60E+04	1.19E-04	4.52%
100-H-43	100-H-43_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.321	--	-	-	2.40E+02	1.34E-03	50.89%
100-H-43	100-H-43_SPA	7439-92-1	Lead	Non-Rad	18.5	--	-	-	--	-	-
100-H-43	100-H-43_SPA	7439-98-7	Molybdenum	Non-Rad	0.26	--	-	-	4.00E+02	6.50E-04	24.73%
100-H-43	100-H-43_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	11	--	-	-	--	-	-
100-H-43	100-H-43_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	5.2	--	-	-	--	-	-
100-H-43	100-H-43_SPA	83-32-9	Acenaphthene	Non-Rad	0.0057	--	-	-	4.80E+03	1.19E-06	0.05%
100-H-43	100-H-43_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.013	1.37E+00	9.49E-09	4.70%	--	-	-
100-H-43	100-H-43_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.015	1.37E-01	1.10E-07	54.22%	--	-	-
100-H-43	100-H-43_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.017	1.37E+00	1.24E-08	6.15%	--	-	-
100-H-43	100-H-43_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.022	--	-	-	--	-	-
100-H-43	100-H-43_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.018	1.37E+00	1.31E-08	6.51%	--	-	-
100-H-43	100-H-43_SPA	218-01-9	Chrysene	Non-Rad	0.039	1.37E+01	2.85E-09	1.41%	--	-	-
100-H-43	100-H-43_SPA	206-44-0	Fluoranthene	Non-Rad	0.091	--	-	-	3.20E+03	2.84E-05	1.08%
100-H-43	100-H-43_SPA	86-73-7	Fluorene	Non-Rad	0.01	--	-	-	3.20E+03	3.13E-06	0.12%
100-H-43	100-H-43_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.048	1.37E+00	3.50E-08	17.35%	--	-	-
100-H-43	100-H-43_SPA	85-01-8	Phenanthrene	Non-Rad	0.039	--	-	-	--	-	-
100-H-43	100-H-43_SPA	129-00-0	Pyrene	Non-Rad	0.034	--	-	-	2.40E+03	1.42E-05	0.54%
100-H-43	100-H-43_SPA	11096-82-5	Aroclor-1260	Non-Rad	0.0033	5.00E-01	6.60E-09	3.27%	--	-	-
100-H-43	100-H-43_SPA	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.019	2.94E+00	6.46E-09	3.20%	--	-	-
100-H-43	100-H-43_SPA	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.019	2.94E+00	6.46E-09	3.20%	4.00E+01	4.75E-04	18.07%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.02E-07**			**2.63E-03**	
100-H-46	100-H-46_Shallow_DU1	7440-42-8	Boron	Non-Rad	1.9	--	-	-	1.60E+04	1.19E-04	1.11%
100-H-46	100-H-46_Shallow_DU1	7440-50-8	Copper	Non-Rad	24	--	-	-	3.20E+03	7.50E-03	70.13%
100-H-46	100-H-46_Shallow_DU1	18540-29-9	Hexavalent Chromium	Non-Rad	0.276	--	-	-	2.40E+02	1.15E-03	10.75%
100-H-46	100-H-46_Shallow_DU1	7439-98-7	Molybdenum	Non-Rad	0.77	--	-	-	4.00E+02	1.93E-03	18.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.07E-02**	
100-H-46	100-H-46_Shallow_DU2	7440-42-8	Boron	Non-Rad	1.2	--	-	-	1.60E+04	7.50E-05	4.07%
100-H-46	100-H-46_Shallow_DU2	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	44.80%
100-H-46	100-H-46_Shallow_DU2	18540-29-9	Hexavalent Chromium	Non-Rad	0.226	--	-	-	2.40E+02	9.42E-04	51.13%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.84E-03**	
100-H-46	100-H-46_DU3_OB	18540-29-9	Hexavalent Chromium	Non-Rad	0.237	--	-	-	2.40E+02	9.88E-04	56.83%
100-H-46	100-H-46_DU3_OB	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	43.17%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.74E-03**	
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7440-42-8	Boron	Non-Rad	7.6	--	-	-	1.60E+04	4.75E-04	0.32%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7439-92-1	Lead	Non-Rad	36.1	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	7439-98-7	Molybdenum	Non-Rad	0.31	--	-	-	4.00E+02	7.75E-04	0.52%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	112	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	100	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	83-32-9	Acenaphthene	Non-Rad	0.26	--	-	-	4.80E+03	5.42E-05	0.04%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	208-96-8	Acenaphthylene	Non-Rad	0.049	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	120-12-7	Anthracene	Non-Rad	0.29	--	-	-	2.40E+04	1.21E-05	0.01%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	2.2	1.37E+00	1.61E-06	9.03%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	1.8	1.37E-01	1.31E-05	73.86%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	1.4	1.37E+00	1.02E-06	5.74%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	1.1	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.58	1.37E+00	4.23E-07	2.38%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	218-01-9	Chrysene	Non-Rad	2.4	1.37E+01	1.75E-07	0.98%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	53-70-3	Dibenz[a,h]anthracene	Non-Rad	0.13	1.37E+00	9.49E-08	0.53%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	206-44-0	Fluoranthene	Non-Rad	4.6	--	-	-	3.20E+03	1.44E-03	0.97%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	86-73-7	Fluorene	Non-Rad	0.19	--	-	-	3.20E+03	5.94E-05	0.04%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	1.1	1.37E+00	8.03E-07	4.51%	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	85-01-8	Phenanthrene	Non-Rad	3.3	--	-	-	--	-	-
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	129-00-0	Pyrene	Non-Rad	5.2	--	-	-	2.40E+03	2.17E-03	1.46%

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11097-69-1	Aroclor-1254	Non-Rad	0.23	5.00E-01	4.60E-07	2.59%	1.60E+00	1.44E-01	96.65%
100-H-48 & 100-H-52	100-H-48 & 100-H-52_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.033	5.00E-01	6.60E-08	0.37%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.78E-05**			**1.49E-01**	

100-H-49:1	100-H-49:1_Shallow Focused	7440-42-8	Boron	Non-Rad	4.1	--	-	-	1.60E+04	2.56E-04	3.06%
100-H-49:1	100-H-49:1_Shallow Focused	7440-50-8	Copper	Non-Rad	23.1	--	-	-	3.20E+03	7.22E-03	86.08%
100-H-49:1	100-H-49:1_Shallow Focused	7439-92-1	Lead	Non-Rad	27.5	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.25	--	-	-	4.00E+02	6.25E-04	7.45%
100-H-49:1	100-H-49:1_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	170	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	89	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	TPHGASOLINE	Total petroleum hydrocarbons - Gasoline range	Non-Rad	1.6	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	208-96-8	Acenaphthylene	Non-Rad	0.082	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	56-55-3	Benzo(a)anthracene	Non-Rad	0.16	1.37E+00	1.17E-07	9.20%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.12	1.37E-01	8.76E-07	69.01%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.13	1.37E+00	9.49E-08	7.48%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	191-24-2	Benzo(ghi)perylene	Non-Rad	0.14	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.068	1.37E+00	4.96E-08	3.91%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	218-01-9	Chrysene	Non-Rad	0.15	1.37E+01	1.10E-08	0.86%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	206-44-0	Fluoranthene	Non-Rad	0.31	--	-	-	3.20E+03	9.69E-05	1.16%
100-H-49:1	100-H-49:1_Shallow Focused	86-73-7	Fluorene	Non-Rad	0.021	--	-	-	3.20E+03	6.56E-06	0.08%
100-H-49:1	100-H-49:1_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.067	1.37E+00	4.89E-08	3.85%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	91-20-3	Naphthalene	Non-Rad	0.013	--	-	-	1.60E+03	8.13E-06	0.10%
100-H-49:1	100-H-49:1_Shallow Focused	85-01-8	Phenanthrene	Non-Rad	0.45	--	-	-	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	129-00-0	Pyrene	Non-Rad	0.28	--	-	-	2.40E+03	1.17E-04	1.39%
100-H-49:1	100-H-49:1_Shallow Focused	11096-82-5	Aroclor-1260	Non-Rad	0.035	5.00E-01	7.00E-08	5.51%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.004	2.94E+00	1.36E-09	0.11%	--	-	-
100-H-49:1	100-H-49:1_Shallow Focused	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0023	2.94E+00	7.82E-10	0.06%	4.00E+01	5.75E-05	0.69%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.27E-06**			**8.39E-03**	

100-H-51:1	100-H-51:1_Shallow	7440-42-8	Boron	Non-Rad	1.8	--	-	-	1.60E+04	1.13E-04	4.83%
100-H-51:1	100-H-51:1_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.28	--	-	-	2.40E+02	1.17E-03	50.06%
100-H-51:1	100-H-51:1_Shallow	7439-92-1	Lead	Non-Rad	81.3	--	-	-	--	-	-
100-H-51:1	100-H-51:1_Shallow	7439-98-7	Molybdenum	Non-Rad	0.35	--	-	-	4.00E+02	8.75E-04	37.54%
100-H-51:1	100-H-51:1_Shallow	83-32-9	Acenaphthene	Non-Rad	0.02	--	-	-	4.80E+03	4.17E-06	0.18%
100-H-51:1	100-H-51:1_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.12	1.37E+00	8.76E-08	9.92%	--	-	-
100-H-51:1	100-H-51:1_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.093	1.37E-01	6.79E-07	76.99%	--	-	-
100-H-51:1	100-H-51:1_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.092	1.37E+00	6.72E-08	7.62%	--	-	-
100-H-51:1	100-H-51:1_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.063	--	-	-	--	-	-
100-H-51:1	100-H-51:1_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.014	1.37E+00	1.02E-08	1.16%	--	-	-
100-H-51:1	100-H-51:1_Shallow	218-01-9	Chrysene	Non-Rad	0.12	1.37E+01	8.76E-09	0.99%	--	-	-
100-H-51:1	100-H-51:1_Shallow	206-44-0	Fluoranthene	Non-Rad	0.14	--	-	-	3.20E+03	4.38E-05	1.88%
100-H-51:1	100-H-51:1_Shallow	86-73-7	Fluorene	Non-Rad	0.0087	--	-	-	3.20E+03	2.72E-06	0.12%
100-H-51:1	100-H-51:1_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.038	1.37E+00	2.77E-08	3.15%	--	-	-
100-H-51:1	100-H-51:1_Shallow	91-20-3	Naphthalene	Non-Rad	0.016	--	-	-	1.60E+03	1.00E-05	0.43%
100-H-51:1	100-H-51:1_Shallow	85-01-8	Phenanthrene	Non-Rad	0.035	--	-	-	--	-	-
100-H-51:1	100-H-51:1_Shallow	129-00-0	Pyrene	Non-Rad	0.14	--	-	-	2.40E+03	5.83E-05	2.50%
100-H-51:1	100-H-51:1_Shallow	72-55-9	4,4'-DDE (Dichlorodiphenyldichloroethylene)	Non-Rad	0.0018	2.94E+00	6.12E-10	0.07%	--	-	-
100-H-51:1	100-H-51:1_Shallow	50-29-3	4,4'-DDT (Dichlorodiphenyltrichloroethane)	Non-Rad	0.0023	2.94E+00	7.82E-10	0.09%	4.00E+01	5.75E-05	2.47%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**8.82E-07**			**2.33E-03**	

100-H-51:1	100-H-51:1_Shallow focused	7440-42-8	Boron	Non-Rad	1	--	-	-	1.60E+04	6.25E-05	82.87%
100-H-51:1	100-H-51:1_Shallow focused	7439-92-1	Lead	Non-Rad	14.7	--	-	-	--	-	-
100-H-51:1	100-H-51:1_Shallow focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.013	1.37E-01	9.49E-08	95.13%	--	-	-
100-H-51:1	100-H-51:1_Shallow focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0059	1.37E+00	4.31E-09	4.32%	--	-	-
100-H-51:1	100-H-51:1_Shallow focused	218-01-9	Chrysene	Non-Rad	0.0076	1.37E+01	5.55E-10	0.56%	--	-	-
100-H-51:1	100-H-51:1_Shallow focused	206-44-0	Fluoranthene	Non-Rad	0.016	--	-	-	3.20E+03	5.00E-06	6.63%
100-H-51:1	100-H-51:1_Shallow focused	85-01-8	Phenanthrene	Non-Rad	0.015	--	-	-	--	-	-
100-H-51:1	100-H-51:1_Shallow focused	129-00-0	Pyrene	Non-Rad	0.019	--	-	-	2.40E+03	7.92E-06	10.50%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**9.98E-08**			**7.54E-05**	

100-H-51:2	100-H-51:2_Shallow	PU-239/240	Plutonium-239/240	Rad	2.76	2.03E+02	1.36E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.36E-06**				
100-H-51:2	100-H-51:2_Shallow	7440-42-8	Boron	Non-Rad	2.5	--	-	-	1.60E+04	1.56E-04	14.12%
100-H-51:2	100-H-51:2_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.228		-		2.40E+02	9.50E-04	85.88%
100-H-51:2	100-H-51:2_Shallow	11096-82-5	Aroclor-1260	Non-Rad	0.013	5.00E-01	2.60E-08	100.00%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.60E-08**			**1.11E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.39E-06**			**1.11E-03**	

100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-39-3	Barium	Non-Rad	211	--	-	-	1.60E+04	1.32E-02	18.56%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-42-8	Boron	Non-Rad	47.3	--	-	-	1.60E+04	2.96E-03	4.16%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-47-3	Chromium	Non-Rad	27.8	--	-	-	1.20E+05	2.32E-04	0.33%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-50-8	Copper	Non-Rad	62.5	--	-	-	3.20E+03	1.95E-02	27.49%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7439-92-1	Lead	Non-Rad	10.9	--	-	-	--	-	-
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7439-98-7	Molybdenum	Non-Rad	3.5	--	-	-	4.00E+02	8.75E-03	12.31%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7440-02-0	Nickel	Non-Rad	39	--	-	-	1.60E+03	2.44E-02	34.30%
100-H-51:3 & 100-H-51:6	100-H-51:3 & 100-H-51:6_Shallow	7782-49-2	Selenium	Non-Rad	0.81	--	-	-	4.00E+02	2.03E-03	2.85%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**7.11E-02**	

100-H-51:6	100-H-51:6_Shallow Focused	7440-42-8	Boron	Non-Rad	9.3	--	-	-	1.60E+04	5.81E-04	100.00%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.81E-04**	

100-H-54	100-H-54_shallow	10045-97-3	Cesium-137	Rad	4.449	4.40E+00	1.01E-04	63.96%	--	-	-
100-H-54	100-H-54_shallow	14683-23-9	Europium-152	Rad	2.046	3.66E+00	5.59E-05	35.36%	--	-	-
100-H-54	100-H-54_shallow	14391-16-3	Europium-155	Rad	0.497	3.27E+02	1.52E-07	0.10%	--	-	-
100-H-54	100-H-54_shallow	13981-16-3	Plutonium-238	Rad	0.119	2.36E+02	5.04E-08	0.03%	--	-	-
100-H-54	100-H-54_shallow	15117-96-1	Uranium-235	Rad	0.14	1.63E+01	8.59E-07	0.54%	--	-	-
Total Radiological Risk Estimate							**1.58E-04**				
100-H-54	100-H-54_shallow	7440-42-8	Boron	Non-Rad	1.45	--	-	-	1.60E+04	9.06E-05	0.16%
100-H-54	100-H-54_shallow	7440-43-9	Cadmium	Non-Rad	2.26	--	-	-	8.00E+01	2.83E-02	50.70%
100-H-54	100-H-54_shallow	7440-47-3	Chromium	Non-Rad	34.7	--	-	-	1.20E+05	2.89E-04	0.52%
100-H-54	100-H-54_shallow	7440-50-8	Copper	Non-Rad	36.2	--	-	-	3.20E+03	1.13E-02	20.30%
100-H-54	100-H-54_shallow	7439-92-1	Lead	Non-Rad	73.2	--	-	-	--	-	-
100-H-54	100-H-54_shallow	7439-98-7	Molybdenum	Non-Rad	0.711	--	-	-	4.00E+02	1.78E-03	3.19%
100-H-54	100-H-54_shallow	7440-66-6	Zinc	Non-Rad	336	--	-	-	2.40E+04	1.40E-02	25.13%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**5.57E-02**	
Total Non-Radiological and Radiological Risk Estimate							**1.58E-04**				

100-H-56	100-H-56_Shallow	7440-39-3	Barium	Non-Rad	392	--	-	-	1.60E+04	2.45E-02	3.45%
100-H-56	100-H-56_Shallow	7440-42-8	Boron	Non-Rad	69	--	-	-	1.60E+04	4.31E-03	0.61%
100-H-56	100-H-56_Shallow	7440-50-8	Copper	Non-Rad	29.8	--	-	-	3.20E+03	9.31E-03	1.31%
100-H-56	100-H-56_Shallow	18540-29-9	Hexavalent chromium	Non-Rad	0.308	--	-	-	2.40E+02	1.28E-03	0.18%
100-H-56	100-H-56_Shallow	7439-92-1	Lead	Non-Rad	84	--	-	-	--	-	-
100-H-56	100-H-56_Shallow	7439-97-6	Mercury	Non-Rad	15.9	--	-	-	2.40E+01	6.63E-01	93.32%
100-H-56	100-H-56_Shallow	7439-98-7	Molybdenum	Non-Rad	0.48	--	-	-	4.00E+02	1.20E-03	0.17%
100-H-56	100-H-56_Shallow	7782-49-2	Selenium	Non-Rad	1.55	--	-	-	4.00E+02	3.88E-03	0.55%
100-H-56	100-H-56_Shallow	7440-66-6	Zinc	Non-Rad	70.9	--	-	-	2.40E+04	2.95E-03	0.42%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**7.10E-01**	

100-H-57	100-H-57_shallow	7440-39-3	Barium	Non-Rad	237	--	-	-	1.60E+04	1.48E-02	43.07%
100-H-57	100-H-57_shallow	7440-42-8	Boron	Non-Rad	33.6	--	-	-	1.60E+04	2.10E-03	6.11%
100-H-57	100-H-57_shallow	7439-92-1	Lead	Non-Rad	32.5	--	-	-	--	-	-
100-H-57	100-H-57_shallow	7439-97-6	Mercury	Non-Rad	0.4	--	-	-	2.40E+01	1.67E-02	48.46%
100-H-57	100-H-57_shallow	7439-98-7	Molybdenum	Non-Rad	0.28	--	-	-	4.00E+02	7.00E-04	2.04%
100-H-57	100-H-57_shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	14.3	--	-	-	1.28E+05	1.12E-04	0.32%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**3.44E-02**	

100-H-59:1	100-H-59:1_Shallow	7440-42-8	Boron	Non-Rad	2.7	--	-	-	1.60E+04	1.69E-04	16.98%
100-H-59:1	100-H-59:1_Shallow	7439-92-1	Lead	Non-Rad	25.5	--	-	-	--	-	-
100-H-59:1	100-H-59:1_Shallow	7439-98-7	Molybdenum	Non-Rad	0.33	--	-	-	4.00E+02	8.25E-04	83.02%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**9.94E-04**	

100-H-59:1	100-H-59:1_SPA	7440-42-8	Boron	Non-Rad	2.4	--	-	-	1.60E+04	1.50E-04	9.52%
100-H-59:1	100-H-59:1_SPA	7439-92-1	Lead	Non-Rad	21.5	--	-	-	--	-	-

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
100-H-59:1	100-H-59:1_SPA	7439-98-7	Molybdenum	Non-Rad	0.57	--	-	-	4.00E+02	1.43E-03	90.48%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.58E-03**	
100-H-59:2	100-H-59:2_Shallow	7440-42-8	Boron	Non-Rad	3.7	--	-	-	1.60E+04	2.31E-04	4.76%
100-H-59:2	100-H-59:2_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	0.723	--	-	-	2.40E+02	3.01E-03	62.03%
100-H-59:2	100-H-59:2_Shallow	7439-98-7	Molybdenum	Non-Rad	0.56	--	-	-	4.00E+02	1.40E-03	28.83%
100-H-59:2	100-H-59:2_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	5.2	--	-	-	--	-	-
100-H-59:2	100-H-59:2_Shallow	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	2.7	--	-	-	--	-	-
100-H-59:2	100-H-59:2_Shallow	60-57-1	Dieldrin	Non-Rad	0.00085	6.25E-02	1.36E-08	100.00%	4.00E+00	2.13E-04	4.38%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.36E-08**			**4.86E-03**	
100-H-59:2	100-H-59:2_Shallow Focused	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	6.28%
100-H-59:2	100-H-59:2_Shallow Focused	18540-29-9	Hexavalent Chromium	Non-Rad	0.336	--	-	-	2.40E+02	1.40E-03	93.72%
100-H-59:2	100-H-59:2_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	1.4	--	-	-	--	-	-
100-H-59:2	100-H-59:2_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	1.1	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**1.49E-03**	
100-H-59:2	100-H-59:2_SPA	7440-42-8	Boron	Non-Rad	1.5	--	-	-	1.60E+04	9.38E-05	10.76%
100-H-59:2	100-H-59:2_SPA	18540-29-9	Hexavalent Chromium	Non-Rad	0.155	--	-	-	2.40E+02	6.46E-04	74.16%
100-H-59:2	100-H-59:2_SPA	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	5.4	--	-	-	--	-	-
100-H-59:2	100-H-59:2_SPA	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	13	--	-	-	--	-	-
100-H-59:2	100-H-59:2_SPA	83-32-9	Acenaphthene	Non-Rad	0.031	--	-	-	4.80E+03	6.46E-06	0.74%
100-H-59:2	100-H-59:2_SPA	120-12-7	Anthracene	Non-Rad	0.024				2.40E+04	1.00E-06	0.11%
100-H-59:2	100-H-59:2_SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.1	1.37E+00	7.30E-08	10.18%	--	-	-
100-H-59:2	100-H-59:2_SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.069	1.37E-01	5.04E-07	70.23%	--	-	-
100-H-59:2	100-H-59:2_SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.1	1.37E+00	7.30E-08	10.18%	--	-	-
100-H-59:2	100-H-59:2_SPA	191-24-2	Benzo(ghi)perylene	Non-Rad	0.056	--	-	-	--	-	-
100-H-59:2	100-H-59:2_SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.031	1.37E+00	2.26E-08	3.16%	--	-	-
100-H-59:2	100-H-59:2_SPA	218-01-9	Chrysene	Non-Rad	0.085	1.37E+01	6.21E-09	0.87%	--	-	-
100-H-59:2	100-H-59:2_SPA	206-44-0	Fluoranthene	Non-Rad	0.16	--	-	-	3.20E+03	5.00E-05	5.74%
100-H-59:2	100-H-59:2_SPA	86-73-7	Fluorene	Non-Rad	0.023	--	-	-	3.20E+03	7.19E-06	0.83%
100-H-59:2	100-H-59:2_SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.053	1.37E+00	3.87E-08	5.39%	--	-	-
100-H-59:2	100-H-59:2_SPA	85-01-8	Phenanthrene	Non-Rad	0.098	--	-	-	--	-	-
100-H-59:2	100-H-59:2_SPA	129-00-0	Pyrene	Non-Rad	0.16	--	-	-	2.40E+03	6.67E-05	7.65%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**7.17E-07**			**8.71E-04**	
126-H-2	126-H-2 East and Pump Room Clearwell_Shallow	7439-92-1	Lead	Non-Rad	59.7	--	-	-	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**0.00E+00**	
132-H-3	132-H-3_Area A _OB	7440-42-8	Boron	Non-Rad	1.6	--	-	-	1.60E+04	1.00E-04	10.23%
132-H-3	132-H-3_Area A _OB	7439-98-7	Molybdenum	Non-Rad	0.3	--	-	-	4.00E+02	7.50E-04	76.70%
132-H-3	132-H-3_Area A _OB	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	3	--	-	-	1.28E+05	2.34E-05	2.40%
132-H-3	132-H-3_Area A _OB	120-12-7	Anthracene	Non-Rad	0.0066		-	-	2.40E+04	2.75E-07	0.03%
132-H-3	132-H-3_Area A _OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.068	1.37E+00	4.96E-08	9.01%	--	-	-
132-H-3	132-H-3_Area A _OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.038	1.37E-01	2.77E-07	50.36%	--	-	-
132-H-3	132-H-3_Area A _OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.073	1.37E+00	5.33E-08	9.67%	--	-	-
132-H-3	132-H-3_Area A _OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.012	--	-	-	--	-	-
132-H-3	132-H-3_Area A _OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.039	1.37E+00	2.85E-08	5.17%	--	-	-
132-H-3	132-H-3_Area A _OB	218-01-9	Chrysene	Non-Rad	0.064	1.37E+01	4.67E-09	0.85%	--	-	-
132-H-3	132-H-3_Area A _OB	206-44-0	Fluoranthene	Non-Rad	0.16	--	-	-	3.20E+03	5.00E-05	5.11%
132-H-3	132-H-3_Area A _OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.032	1.37E+00	2.34E-08	4.24%	--	-	-
132-H-3	132-H-3_Area A _OB	85-01-8	Phenanthrene	Non-Rad	0.072	--	-	-	--	-	-
132-H-3	132-H-3_Area A _OB	129-00-0	Pyrene	Non-Rad	0.13		-	-	2.40E+03	5.42E-05	5.54%
132-H-3	132-H-3_Area A _OB	11096-82-5	Aroclor-1260	Non-Rad	0.057	5.00E-01	1.14E-07	20.70%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.51E-07**			**9.78E-04**	
132-H-3	132-H-3_Area B _OB	7440-42-8	Boron	Non-Rad	12.3	--	-	-	1.60E+04	7.69E-04	5.84%
132-H-3	132-H-3_Area B _OB	7439-92-1	Lead	Non-Rad	25.1	--	-	-	--	-	-
132-H-3	132-H-3_Area B _OB	7439-98-7	Molybdenum	Non-Rad	2.2	--	-	-	4.00E+02	5.50E-03	41.76%
132-H-3	132-H-3_Area B _OB	7782-49-2	Selenium	Non-Rad	1.3	--	-	-	4.00E+02	3.25E-03	24.67%
132-H-3	132-H-3_Area B _OB	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	4.4	--	-	-	1.28E+05	3.44E-05	0.26%
132-H-3	132-H-3_Area B _OB	120-12-7	Anthracene	Non-Rad	0.012	--	-	-	2.40E+04	5.00E-07	0.00%
132-H-3	132-H-3_Area B _OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.088	1.37E+00	6.42E-08	11.25%	--	-	-
132-H-3	132-H-3_Area B _OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.043	1.37E-01	3.14E-07	54.95%	--	-	-
132-H-3	132-H-3_Area B _OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.039	1.37E+00	2.85E-08	4.98%	--	-	-
132-H-3	132-H-3_Area B _OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.014	--	-	-	--	-	-
132-H-3	132-H-3_Area B _OB	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0095	1.37E+00	6.94E-09	1.21%	--	-	-
132-H-3	132-H-3_Area B _OB	218-01-9	Chrysene	Non-Rad	0.048	1.37E+01	3.50E-09	0.61%	--	-	-
132-H-3	132-H-3_Area B _OB	206-44-0	Fluoranthene	Non-Rad	0.066	--	-	-	3.20E+03	2.06E-05	0.16%
132-H-3	132-H-3_Area B _OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.034	1.37E+00	2.48E-08	4.34%	--	-	-
132-H-3	132-H-3_Area B _OB	85-01-8	Phenanthrene	Non-Rad	0.046	--	-	-	--	-	-
132-H-3	132-H-3_Area B _OB	129-00-0	Pyrene	Non-Rad	0.083	--	-	-	2.40E+03	3.46E-05	0.26%
132-H-3	132-H-3_Area B _OB	11097-69-1	Aroclor-1254	Non-Rad	0.0057	5.00E-01	1.14E-08	2.00%	1.60E+00	3.56E-03	27.05%
132-H-3	132-H-3_Area B _OB	11096-82-5	Aroclor-1260	Non-Rad	0.059	5.00E-01	1.18E-07	20.66%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**5.71E-07**			**1.32E-02**	
132-H-3	132-H-3_Area C _OB	10028-17-8	Tritium	Rad	0.0084	6.23E+02	1.35E-09	100.00%	--	-	-
Total Radiological Risk Estimate							**1.35E-09**				
132-H-3	132-H-3_Area C _OB	7440-42-8	Boron	Non-Rad	2.2	--	-	-	1.60E+04	1.38E-04	1.82%
132-H-3	132-H-3_Area C _OB	7439-92-1	Lead	Non-Rad	10.8	--	-	-	--	-	-
132-H-3	132-H-3_Area C _OB	7439-98-7	Molybdenum	Non-Rad	0.44	--	-	-	4.00E+02	1.10E-03	14.58%
132-H-3	132-H-3_Area C _OB	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	1.7	--	-	-	1.28E+05	1.33E-05	0.18%
132-H-3	132-H-3_Area C _OB	120-12-7	Anthracene	Non-Rad	0.014	--	-	-	2.40E+04	5.83E-07	0.01%
132-H-3	132-H-3_Area C _OB	56-55-3	Benzo(a)anthracene	Non-Rad	0.031	1.37E+00	2.26E-08	9.00%	--	-	-
132-H-3	132-H-3_Area C _OB	50-32-8	Benzo(a)pyrene	Non-Rad	0.022	1.37E-01	1.61E-07	63.89%	--	-	-
132-H-3	132-H-3_Area C _OB	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.02	1.37E+00	1.46E-08	5.81%	--	-	-
132-H-3	132-H-3_Area C _OB	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0089	--	-	-	--	-	-
132-H-3	132-H-3_Area C _OB	218-01-9	Chrysene	Non-Rad	0.028	1.37E+01	2.04E-09	0.81%	--	-	-
132-H-3	132-H-3_Area C _OB	206-44-0	Fluoranthene	Non-Rad	0.053	--	-	-	3.20E+03	1.66E-05	0.22%
132-H-3	132-H-3_Area C _OB	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.013	1.37E+00	9.49E-09	3.78%	--	-	-
132-H-3	132-H-3_Area C _OB	85-01-8	Phenanthrene	Non-Rad	0.036	--	-	-	--	-	-
132-H-3	132-H-3_Area C _OB	129-00-0	Pyrene	Non-Rad	0.069	--	-	-	2.40E+03	2.88E-05	0.38%
132-H-3	132-H-3_Area C _OB	11097-69-1	Aroclor-1254	Non-Rad	0.01	5.00E-01	2.00E-08	7.96%	1.60E+00	6.25E-03	82.82%
132-H-3	132-H-3_Area C _OB	11096-82-5	Aroclor-1260	Non-Rad	0.011	5.00E-01	2.20E-08	8.75%	--	-	-
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.51E-07**			**7.55E-03**	
Total Non-Radiological and Radiological Risk Estimate							**2.53E-07**				
132-H-3	132-H-3_Area D _SPA	14683-23-9	Europium-152	Rad	0.0582	3.66E+00	1.59E-06	100.00%	--	-	-
Total Radiological Risk Estimate							**1.59E-06**				
132-H-3	132-H-3_Area D _SPA	7440-42-8	Boron	Non-Rad	0.99	--	-	-	1.60E+04	6.19E-05	1.27%
132-H-3	132-H-3_Area D _SPA	7440-47-3	Chromium	Non-Rad	19.1	--	-	-	1.20E+05	1.59E-04	3.26%
132-H-3	132-H-3_Area D _SPA	7439-98-7	Molybdenum	Non-Rad	0.64	--	-	-	4.00E+02	1.60E-03	32.82%
132-H-3	132-H-3_Area D _SPA	7782-49-2	Selenium	Non-Rad	1.2	--	-	-	4.00E+02	3.00E-03	61.54%
132-H-3	132-H-3_Area D _SPA	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	0.69	--	-	-	1.28E+05	5.39E-06	0.11%
132-H-3	132-H-3_Area D _SPA	56-55-3	Benzo(a)anthracene	Non-Rad	0.0085	1.37E+00	6.21E-09	2.30%	--	-	-
132-H-3	132-H-3_Area D _SPA	50-32-8	Benzo(a)pyrene	Non-Rad	0.028	1.37E-01	2.04E-07	75.63%	--	-	-
132-H-3	132-H-3_Area D _SPA	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.03	1.37E+00	2.19E-08	8.10%	--	-	-
132-H-3	132-H-3_Area D _SPA	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.016	1.37E+00	1.17E-08	4.32%	--	-	-
132-H-3	132-H-3_Area D _SPA	218-01-9	Chrysene	Non-Rad	0.027	1.37E+01	1.97E-09	0.73%	--	-	-
132-H-3	132-H-3_Area D _SPA	206-44-0	Fluoranthene	Non-Rad	0.062	--	-	-	3.20E+03	1.94E-05	0.40%
132-H-3	132-H-3_Area D _SPA	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.033	1.37E+00	2.41E-08	8.91%	--	-	-
132-H-3	132-H-3_Area D _SPA	85-01-8	Phenanthrene	Non-Rad	0.053	--	-	-	--	-	-
132-H-3	132-H-3_Area D _SPA	129-00-0	Pyrene	Non-Rad	0.07	--	-	-	2.40E+03	2.92E-05	0.60%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**2.70E-07**			**4.87E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.86E-06**				
132-H-3	132-H-3_Shallow	10198-40-0	Cobalt-60	Rad	0.0461	3.10E+00	1.49E-06	1.36%	--	-	-
132-H-3	132-H-3_Shallow	14683-23-9	Europium-152	Rad	1.02	3.66E+00	2.79E-05	25.40%	--	-	-
132-H-3	132-H-3_Shallow	15585-10-1	Europium-154	Rad	0.0762	4.40E+00	1.73E-06	1.58%	--	-	-
132-H-3	132-H-3_Shallow	13981-37-8	Nickel-63	Rad	6.72	6.08E+02	1.11E-06	1.01%	--	-	-
132-H-3	132-H-3_Shallow	SR-RAD	Total beta radiostrontium	Rad	1.76	2.27E+00	7.75E-05	70.66%	--	-	-
132-H-3	132-H-3_Shallow	10028-17-8	Tritium	Rad	0.0102	6.23E+02	1.64E-09	0.00%	--	-	-
Total Radiological Risk Estimate							**1.10E-04**				

Table 8. Residential Scenario Risk Estimates and Noncancer Hazards for the 100-DH Source OU Waste Site Decision Units

Waste Site Name	Waste Site/Decision Unit	CAS NO.	Contaminant Name	Analyte Group	Statistical or Maximum Result (mg/kg or pCi/g)	Cancer Effects PRG (mg/kg)	Cancer Risk Estimate (mg/kg)	Percent Contribution to Cancer Risk	Noncancer Effects PRG	Noncancer Hazard Quotient and Hazard Index	Percent Contribution to Noncancer HI
132-H-3	132-H-3_Shallow	7440-42-8	Boron	Non-Rad	0.99	--	-	-	1.60E+04	6.19E-05	0.82%
132-H-3	132-H-3_Shallow	7440-47-3	Chromium	Non-Rad	13.5	--	-	-	1.20E+05	1.13E-04	1.49%
132-H-3	132-H-3_Shallow	18540-29-9	Hexavalent Chromium	Non-Rad	1.57	--	-	-	2.40E+02	6.54E-03	86.77%
132-H-3	132-H-3_Shallow	7439-98-7	Molybdenum	Non-Rad	0.35	--	-	-	4.00E+02	8.75E-04	11.61%
132-H-3	132-H-3_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	1.3	--	-	-	1.28E+05	1.02E-05	0.13%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**7.54E-03**	
Total Non-Radiological and Radiological Risk Estimate							**1.10E-04**				

600-381	600-381_Shallow	7440-42-8	Boron	Non-Rad	2.4	--	-	-	1.60E+04	1.50E-04	15.07%
600-381	600-381_Shallow	7439-98-7	Molybdenum	Non-Rad	0.27	--	-	-	4.00E+02	6.75E-04	67.80%
600-381	600-381_Shallow	NO2+NO3-N	Nitrogen in Nitrite and Nitrate	Non-Rad	17.3	--	-	-	1.28E+05	1.35E-04	13.58%
600-381	600-381_Shallow	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	7	--	-	-	--	-	-
600-381	600-381_Shallow	94-75-7	2,4-D(2,4-Dichlorophenoxyacetic acid)	Non-Rad	0.013	--	-	-	8.00E+02	1.63E-05	1.63%
600-381	600-381_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.0038	1.37E+00	2.77E-09	1.61%	--	-	-
600-381	600-381_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.02	1.37E-01	1.46E-07	84.53%	--	-	-
600-381	600-381_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0064	1.37E+00	4.67E-09	2.70%	--	-	-
600-381	600-381_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0099	--	-	-	--	-	-
600-381	600-381_Shallow	218-01-9	Chrysene	Non-Rad	0.014	1.37E+01	1.02E-09	0.59%	--	-	-
600-381	600-381_Shallow	84-74-2	Di-n-butylphthalate	Non-Rad	0.052	--	-	-	8.00E+03	6.50E-06	0.65%
600-381	600-381_Shallow	206-44-0	Fluoranthene	Non-Rad	0.015	--	-	-	3.20E+03	4.69E-06	0.47%
600-381	600-381_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.025	1.37E+00	1.83E-08	10.57%	--	-	-
600-381	600-381_Shallow	85-01-8	Phenanthrene	Non-Rad	0.034	--	-	-	--	-	-
600-381	600-381_Shallow	129-00-0	Pyrene	Non-Rad	0.019	--	-	-	2.40E+03	7.92E-06	0.80%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.73E-07**			**9.96E-04**	

600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.326	--	-	-	4.00E+02	8.15E-04	99.86%
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	TPHDIESEL	Total petroleum hydrocarbons - diesel range	Non-Rad	4	--	-	-	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	TPHDIESEL-EXT	Total petroleum hydrocarbons - diesel range ext	Non-Rad	54	--	-	-	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	208-96-8	Acenaphthylene	Non-Rad	0.195	--	-	-	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	50-32-8	Benzo(a)pyrene	Non-Rad	0.00103	1.37E-01	7.52E-09	64.11%	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.000926	1.37E+00	6.76E-10	5.76%	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	191-24-2	Benzo(ghi)perylene	Non-Rad	0.00216	--	-	-	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	206-44-0	Fluoranthene	Non-Rad	0.00137	--	-	-	3.20E+03	4.28E-07	0.05%
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.00484	1.37E+00	3.53E-09	30.13%	--	-	-
600-382	600-382-1, 600-382-2,600-382-3, 600-382-4, 600-382-5_Shallow Focused	129-00-0	Pyrene	Non-Rad	0.00172	--	-	-	2.40E+03	7.17E-07	0.09%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**1.17E-08**			**8.16E-04**	

600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7440-39-3	Barium	Non-Rad	147	--	-	-	1.60E+04	9.19E-03	1.98%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7440-43-9	Cadmium	Non-Rad	10.8	--	-	-	8.00E+01	1.35E-01	29.08%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7440-50-8	Copper	Non-Rad	32.3	--	-	-	3.20E+03	1.01E-02	2.17%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7439-92-1	Lead	Non-Rad	181	--	-	-	--	-	-
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7439-96-5	Manganese	Non-Rad	1890	--	-	-	1.12E+04	1.69E-01	36.35%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7439-97-6	Mercury	Non-Rad	0.744	--	-	-	2.40E+01	3.10E-02	6.68%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7439-98-7	Molybdenum	Non-Rad	0.426	--	-	-	4.00E+02	1.07E-03	0.23%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7440-02-0	Nickel	Non-Rad	63.3	--	-	-	1.60E+03	3.96E-02	8.52%
600-383	600-383-1, 600-383-2, 600-383-3,600-383-4, 600-383-5, 600-383-6, 600-383-7, 600-383-8, 600-383-9, 600-383-10_Shallow Focused	7440-66-6	Zinc	Non-Rad	1670	--	-	-	2.40E+04	6.96E-02	14.99%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**0.00E+00**			**4.64E-01**	

600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	7440-42-8	Boron	Non-Rad	3.42	--	-	-	1.60E+04	2.14E-04	2.11%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-	7439-92-1	Lead	Non-Rad	80.7	--	-	-	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	7439-98-7	Molybdenum	Non-Rad	0.381	--	-	-	4.00E+02	9.53E-04	9.41%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	7440-66-6	Zinc	Non-Rad	108	--	-	-	2.40E+04	4.50E-03	44.44%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	NO3-N	Nitrogen in nitrate	Non-Rad	14.4	--	-	-	1.28E+05	1.13E-04	1.11%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	57-12-5	Cyanide	Non-Rad	0.202	--	-	-	4.80E+01	4.21E-03	41.56%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	Non-Rad	8.49	--	-	-	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	120-12-7	Anthracene	Non-Rad	0.0617	--	-	-	2.40E+04	2.57E-06	0.03%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	56-55-3	Benzo(a)anthracene	Non-Rad	0.072	1.37E+00	5.26E-08	7.29%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	50-32-8	Benzo(a)pyrene	Non-Rad	0.076	1.37E-01	5.55E-07	77.00%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	205-99-2	Benzo(b)fluoranthene	Non-Rad	0.0572	1.37E+00	4.18E-08	5.80%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	191-24-2	Benzo(ghi)perylene	Non-Rad	0.0499	--	-	-	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	207-08-9	Benzo(k)fluoranthene	Non-Rad	0.0193	1.37E+00	1.41E-08	1.96%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	218-01-9	Chrysene	Non-Rad	0.0725	1.37E+01	5.29E-09	0.73%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	53-70-3	Dibenz[a,h]anthracene	Non-Rad	0.0388	1.37E+00	2.83E-08	3.93%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	206-44-0	Fluoranthene	Non-Rad	0.122	--	-	-	3.20E+03	3.81E-05	0.38%
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	193-39-5	Indeno(1,2,3-cd)pyrene	Non-Rad	0.0325	1.37E+00	2.37E-08	3.29%	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	85-01-8	Phenanthrene	Non-Rad	0.102	--	-	-	--	-	-
600-384	600-384-1, 600-384-2, 600-384-3, 600-384-4, 600-384-5_Shallow	129-00-0	Pyrene	Non-Rad	0.236	--	-	-	2.40E+03	9.83E-05	0.97%
Total Non-Radiological Risk Estimate and Hazard Index Estimate							**7.21E-07**			**1.01E-02**	