Appendix L

100-D/H Riparian and Nearshore Evaluation

This page intentionally left blank.

Contents

L1 Introduction L-1

L1.1 Background L-1
L1.2 Description of the 100-D/H Area L-2
L1.3 Review of Previous Riparian/Nearshore Studies L-3
L1.3.1 100-D Area L-3
L1.3.2 100-H Area L-4
L1.3.3 Surface Environmental Surveillance Program L-5
L1.3.4 Groundwater and Aquifer Tube Monitoring Programs L-5
L1.4 Approach to CSM Development L-6

L2 Evaluation of Riparian and Nearshore Exposure Pathways L-8

L2.1 Sources L-8
L2.1.1 Waste Sites and Soils L-8
L2.1.2 Groundwater L-13
L2.2 Contaminant Release and Transport Mechanisms L-14
L2.2.1 Overland Transport from Waste Sites L-14
L2.2.2 Contaminant Leaching from Waste Site Soils to Groundwater L-15
L2.2.3 Transport in Groundwater L-15
L2.3 Exposure Points in Seeps, Surface Water, Sediments, and Riparian Soils L-16
L2.3.1 100-D Area L-17
L2.3.2 100-H Area L-17
L2.3.3 100-D Area L-19
L2.3.4 100-H Area L-19
L2.4 Routes of Potential Exposure and Receptors L-19
L2.4.1 Riparian Zone Exposure Pathways L-22
L2.4.2 Nearshore Aquatic Zone Exposure Pathway L-23
L2.4.3 100-D/H River Effluent Pipeline Investigations L-23

L3 Data Evaluation L-25

L3.1 Data Sources and Data Processing L-25
L3.1.1 Laboratory and Data Validation Flags L-29
L3.1.2 Analytes Reported by Numerous Analytical Methods L-29
L3.1.3 Field Duplicate and Field Split Results L-29
L3.2 Identification of Ecological Screening Levels L-29
L3.2.1 Ecological Screening Levels for Water L-29
L3.2.2 Ecological Screening Levels for Soil L-30
L3.2.3 Ecological Screening Levels for Sediment L-31
L3.3 Identification of Contaminants of Interest - Water L-31

L3.3.1 Apply Exclusion Criteria L-32
L3.3.2 Identify Nondetected Analytes..... L-32
L3.3.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs..... L-32
L3.3.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs.... L-32
L3.4 Identification of Contaminants of Interest – Riparian Soil..... L-55
L3.4.1 Apply Exclusion Criteria L-55
L3.4.2 Identify Nondetected Analytes..... L-55
L3.4.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs..... L-55
L3.4.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs.... L-55
L3.5 Identification of Contaminants of Interest – Nearshore Sediment L-57
L3.5.1 Apply Exclusion Criteria L-57
L3.5.2 Identify Nondetected Analytes..... L-57
L3.5.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs..... L-57
L3.5.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs.... L-57
L3.6 Data Evaluation Summary..... L-58
L4 Summary of Ecological Risks..... L-58
L4.1 Risks to Terrestrial Plants..... L-58
L4.2 Risks to Aquatic Plants..... L-59
L4.2.1 100-D Area Source Evaluation L-60
L4.3 Risks to Terrestrial Invertebrates..... L-63
L4.4 Risks to Aquatic Invertebrates L-63
L4.4.1 Abiotic Media Concentrations Compared to Literature Values..... L-63
L4.4.2 Direct Toxicity Measures..... L-67
L4.4.3 Community Structure Measures..... L-67
L4.4.4 Measures of Exposure..... L-67
L4.4.5 Weight of Evidence..... L-67
L4.5 Risk to Riparian Wildlife L-68
L4.6 Risk to Fish..... L-69
L5 Conclusions L-69
L6 References L-70

Figures

Figure L-1. Environmental Zones in the Riparian/Nearshore Area L-7
Figure L-2. Photograph Depicting the Environmental Zones L-7
Figure L-3. Waste Sites in the Vicinity of 100-D L-9
Figure L-4. Waste Sites in the Vicinity of 100-H L-10
Figure L-5. Conceptual Model of Groundwater-Surface Water Interaction at the Hanford Site..... L-16

Figure L-6. Ecological Conceptual Exposure Model for the Aquatic Environment (Combined Riparian and Aquatic Nearshore Zones) L-20
Figure L-7. Summary of Endpoints and Measures Evaluated in the Riparian Environment L-21
Figure L-8. Sampling Locations in the Vicinity of 100-D L-26
Figure L-9. Sampling Locations in the Vicinity of 100-H L-27
Figure L-10. Sampling Locations in the Horn Area L-28

Tables

Table L-1. Summary of Near Shore Wells and Aquifer Tubes for the 100-D Area of the 100-HR-3 Groundwater Operable Unit L-79
Table L-2. Summary of Near Shore Wells and Aquifer Tubes for the 100-H Area of the 100-HR-3 Groundwater Operable Unit L-80
Table L-3. Surface Water AETs for Aquatic Biota and Amphibians L-81
Table L-4. Summary of Ecological Soil Ecological Screening Levels L-84
Table L-5. Summary of Sediment Ecological Screening Levels L-89
Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area L-95
Table L-7. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-D Source Area L-101
Table L-8. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-D Source Area L-105
Table L-9. Summary of Seep/Spring Analytes Without Ecological Screening Levels for the 100-D Source Area L-107
Table L-10. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-D Source Area L-108
Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area L-111
Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area L-119
Table L-13. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-H Source Area L-127
Table L-14. Summary of Seep/Spring Analytes Without Ecological Screening Levels for the 100-H Source Area L-129
Table L-15. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-H Source Area L-130
Table L-16. Summary of Groundwater Analytes That Were Not Detected for the 100-D Source Area L-132

Table L-17. Summary of Aquifer Tube Analytes That Were Not Detected for the 100-D Source Area L-133

Table L-18. Summary of Pore Water Analytes That Were Not Detected for the 100-D Source Area L-134

Table L-19. Summary of Seep/Spring Analytes That Were Not Detected for the 100-D Source Area L-135

Table L-20. Summary of Surface Water Analytes That Were Not Detected for the 100-D Source Area L-136

Table L-21. Summary of Groundwater Analytes That Were Not Detected for the 100-H Source Area L-137

Table L-22. Summary of Aquifer Tube Analytes That Were Not Detected for the 100-H Source Area L-138

Table L-23. Summary of Pore Water Analytes That Were Not Detected for the 100-H Source Area L-140

Table L-24. Summary of Seep/Spring Analytes That Were Not Detected for the 100-H Source Area L-141

Table L-25. Summary of Surface Water Analytes That Were Not Detected for the 100-H Source Area L-142

Table L-26. Summary of Groundwater Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area L-143

Table L-27. Summary of Aquifer Tube Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area L-144

Table L-28. Summary of Pore Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area L-145

Table L-29. Summary of Seep/Spring Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area L-146

Table L-30. Summary of Surface Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area L-147

Table L-31. Summary of Groundwater Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area L-148

Table L-32. Summary of Aquifer Tube Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area L-149

Table L-33. Summary of Pore Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area L-150

Table L-34. Summary of Seep/Spring Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area L-151

Table L-35. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-H Source Area L-152

Table L-36. Summary of Groundwater Analytes That Exceed an Ecological Screening Level for the 100-D Source Area L-153

Table L-37. Summary of Aquifer Tube Analytes That Exceed an Ecological Screening Level for the 100-D Source Area L-154

Table L-38. Summary of Pore Water Analytes That Exceed an Ecological Screening Level for the 100-D Source Area L-155

Table L-39. Summary of Seep/Spring Analytes That Exceed an Ecological Screening Level for the 100-D Source Area L-156

Table L-40. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-D Source Area L-157

Table L-41. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-D Source Area L-158

Table L-42. Summary of Groundwater Analytes That Exceed an Ecological Screening Level for the 100-H Source Area L-161

Table L-43. Summary of Aquifer Tube Analytes That Exceed an Ecological Screening Level for the 100-H Source Area L-162

Table L-44. Summary of Seep/Spring Analytes That Exceed an Ecological Screening Level for the 100-H Source Area L-163

Table L-45. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-H Source Area L-164

Table L-46. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-H Source Area L-165

Table L-47. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-D Area L-168

Table L-48. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-H Area L-170

Table L-49. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-D Area L-172

Table L-50. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-H Area L-174

Table L-51. Summary of Riparian Soil Analytes With Plant/Invertebrate Ecological Screening Levels That Were Not Detected for the 100-D Area L-176

Table L-52. Summary of Riparian Soil Analytes With Plant/Invertebrate Ecological Screening Levels That Were Not Detected for the 100-H Area L-177

Table L-53. Summary of Riparian Soil Analytes With Wildlife Ecological Screening Levels That Were Not Detected for the 100-D Area L-178

Table L-54. Summary of Riparian Soil Analytes With Wildlife Ecological Screening Levels That Were Not Detected for the 100-H Area L-179

Table L-55. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-D Area L-180

Table L-56. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-H Area L-181

Table L-57. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-D Area L-182

Table L-58. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-H Area L-183

Table L-59. Summary of Riparian Soil Analytes That Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-D Area L-184

Table L-60. Summary of Riparian Soil Analytes that Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-D Area L-185

Table L-61. Summary of Riparian Soil Analytes that Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-H Area L-186

Table L-62. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-D Area L-187

Table L-63. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the Horn Area L-189

Table L-64. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-H Area L-190

Table L-65. Summary of Sediment Analytes That Were Not Detected for the 100-D Source Area L-192

Table L-66. Summary of Sediment Analytes That Were Not Detected for the Horn Area L-194

Table L-67. Summary of Sediment Analytes That Were Not Detected for the 100-H Source Area . L-195

Table L-68. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the 100-D Source Area L-197

Table L-69. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the Horn Area L-199

Table L-70. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the 100-H Area L-200

Table L-71. Summary of Sediment Analytes With Concentrations Greater than a Lower Threshold Ecological Screening Level for the 100-D Source Area L-201

Table L-72. Summary of Sediment Analytes With Concentrations Greater than an Upper Threshold Ecological Screening Level for the 100-D Source Area L-202

Table L-73. Summary of Sediment Analytes With Concentrations Greater than a Lower Threshold Ecological Screening Level for the 100-H Source Area L-203

Table L-74. Summary of Sediment Analytes With Concentrations Greater than an Upper Threshold Ecological Screening Level for the 100-H Source Area L-204

This page intentionally left blank.

Terms

AEA	*Atomic Energy Act of 1954*
COEC	contaminant of ecological concern
COI	contaminant of interest
COPEC	contaminant of potential ecological concern
CSM	conceptual site model
CTE	central tendency estimate
DOE	U.S. Department of Energy
Ecology	State of Washington, Department of Ecology
EMC	Ecological Monitoring and Compliance
ESL	ecological screening level
HEIS	Hanford Environmental Information System
HRM	Hanford river marker
LOAEL	lowest observed adverse effect level
MDL	method detection limit
MIS	MULTI INCREMENT sampling
NOEC	no observed effects concentration
ORNL	Oak Ridge National Laboratory
OU	operable unit
PCB	polychlorinated biphenyl
PQL	practical quantitation limit
PRG	preliminary remediation goal
RAG	remedial action goal
RCBRA	River Corridor Baseline Risk Assessment
RI/FS	Remedial Investigation/Feasibility Study
ROD	record of decision
SAP	sampling analysis plan
SESP	Surface Environmental Surveillance Project
SSL	soil screening level
UTL	upper threshold limit

This page intentionally left blank.

L1 Introduction

This document presents a conceptual site model (CSM) of the riparian and nearshore environment along 100-D/H at the Hanford Site, Washington. The 100-D/H area is located along the Columbia River and includes the 100-DR-1, 100-DR-2, 100-HR-1 and 100-HR-2 Source operable units (OU), the 100-HR-3 Groundwater OU and the adjacent surface water, saturated sediment, and aquatic biota. The horn area is the region between 100-D and 100-H. This conceptual site model has been developed to further evaluate concentrations of nonradiological substances and radionuclides detected in soil, water, and sediments, and to determine if potential transport pathways exist to these media from Hanford Site sources. The supporting evaluation of analytical data also determines if there is the potential for exposure to aquatic receptors.

L1.1 Background

Remediation of waste sites in the 100-D/H Area has been ongoing since 1996 (*Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan, Addendum 1: 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units* [DOE/RL-2008-46-ADD1]) based on interim action Record of Decision (ROD) (*Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington (100 Area Remaining Sites)* [EPA/ROD/R10-99/039]) remedial action goals (RAG) for protection of human health and protection of groundwater and the Columbia River (*Remedial Design Report/Remedial Action Work Plan for the 100 Area* [DOE/RL-96-17]). Remediation of contaminated groundwater also has been ongoing at the 100-HR-3 OU under an interim action ROD (*Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units Interim Remedial Actions, Hanford Site, Benton County, Washington* [EPA/ROD/R10-96/134]). A key component needed to support development of final remedies is a baseline risk assessment. The River Corridor Baseline Risk Assessment (RCBRA) was initiated in 2004 to characterize current and potential threats to human health and the environment (*River Corridor Baseline Risk Assessment, Volume I: Ecological Risk Assessment* [DOE/RL-2007-21]; *Risk Assessment Work Plan for the 100 Area and 300 Area Component of the RCBRA* [DOE/RL-2004-37]). In addition to waste sites located in upland areas and groundwater, the RCBRA (DOE/RL-2007-21) evaluated soil, sediment, and water located in riparian and nearshore areas. The RAGs used in the interim actions addressed risks to human health from direct contact with soil and threats to groundwater from leaching from soil, but did not directly address risks to ecological receptors. The ecological risk assessment conducted as part of the RCBRA (DOE/RL-2007-21) addresses residual contaminant concentrations at remediated waste sites in the upland zones and the transport of contaminants from waste sites to the Columbia River riparian and nearshore zones (*Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan* [DOE/RL-2008-46]).

The RCBRA (DOE/RL-2007-21) evaluated ecological risks at representative riparian study sites across the River Corridor located adjacent to, or where they may be directly affected by, known contaminated media (groundwater seeps, soil, or sediment). The RCBRA (DOE/RL-2007-21) concluded that 6 of the 22 contaminants (arsenic, chromium, lead, mercury, zinc, and TPH-diesel) of potential ecological concern (COPEC) identified for the riparian environment may present some level of risk for one or more of the assessment endpoint entities, based on soil bioassays, comparison of COPEC concentrations to plant or terrestrial invertebrate toxicity benchmarks, or the results of wildlife exposure analyses. The RCBRA (DOE/RL-2007-21) evaluated ecological risks at nearshore study sites potentially affected by contamination from Hanford Site sources in comparison to reference sites. Study sites were selected in areas where known contaminated groundwater plumes enter the Columbia River and in areas between the

plumes. The RCBRA (DOE/RL-2007-21) concluded that five of the 22 COPECs (cadmium, chromium, Cr(VI), manganese, and uranium) identified for the nearshore environment might present some level of risk for one or more of the assessment endpoint entities. Risk results that are relevant are the comparisons of COPEC concentrations to toxicity benchmarks or the results of wildlife exposure analyses (RCBRA [DOE/RL-2007-21]).

The five contaminants of ecological concern (COEC) identified by the RCBRA (DOE/RL-2007-21) in riparian and nearshore media mostly were metals and TPH-diesel. With few exceptions (notably chromium and Cr(VI)), there are ambient sources for the constituents in soil, sediment, and water that are unrelated to the Hanford Site. Taking into consideration what are understood to be principal threat constituents in soil and groundwater at the 100-D/H areas, when compared with the contaminants identified by the RCBRA (DOE/RL-2007-21) as posing ecological risks in riparian and nearshore media, additional work was warranted to gain a better understanding of the CSM—the interrelationships between sources, transport mechanisms, exposure pathways and receptors—in the riparian and nearshore environment.

L1.2 Description of the 100-D/H Area

The 100-D/H area is situated in the northern portion of the Hanford Site and borders the Columbia River. The topography of 100-D/H is relatively flat inland from the river. The Columbia River falls approximately 3 m (10 ft) between 100-D and 100-H. The land surface slopes gradually toward the river, with a bank of up to 9 m (30 ft) at the edge of the river. In the horn, swells and depressions mark the location of glacial flood bars and channels. The operational area within the perimeter fence has been disturbed and graded extensively by human activity since reactor construction began in the 1940s through present-day waste site remedial activities (*Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan, Addendum 1: 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units* [DOE/RL-2008-46-ADD1]; *Literature Review of Environmental Documents in Support of the 100 and 300 Area River Corridor Baseline Risk Assessment* [PNNL-SA-41467], hereinafter called RCBRA Literature Review).

The entire River Corridor, which includes the 100-D/H Area, has been divided in three environmental zones for purposes of investigation (RCBRA [DOE/RL-2007-21]; *Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan* [DOE/RL-2008-46]): the upland, riparian, and nearshore aquatic zones. Summary definitions of these environmental zones are presented in Section L1.4.
The upland environment within the boundary of the 100-D Area contains graveled areas adjacent to buildings and facilities; however, significant portions of the 100-D Area are vegetated. In the eastern portion of the 100-D Area, cheatgrass and other exotic annuals compose the dominant vegetation cover; these are described in the vegetation mapping for the site as “abandoned old fields” (*Vascular Plants of the Hanford Site* [PNNL-13688]). Other vegetation covers found within the 100-D Area boundary include Sandberg’s bluegrass-cheatgrass, gray rabbitbrush/Sandberg’s bluegrass-cheatgrass, and small patches of big sagebrush/Sandberg’s bluegrass-cheatgrass (spatial data available from the Ecological Monitoring and Compliance [EMC] databases).

The riparian environment immediately adjacent to the 100-D area is composed of a relatively narrow vegetative zone, usually less than 50 m (164 ft) wide, along the river northwest of the facility.
The riparian area immediately adjacent to the 100-H Area is composed of a relatively narrow zone usually less than 100 m (328 ft) along the Columba River to the north and west of the facility. The riparian zone becomes significantly broader and more diverse with respect to types of vegetation cover 500 m (1,640 ft) downriver from 100-D and at the southwest end of the 100-H Area boundary and immediately downstream from the facility (RCBRA Literature Review [PNNL-SA-41467]).

L1.3 Review of Previous Riparian/Nearshore Studies

Investigations, which were historically conducted in the riparian and nearshore areas of the 100-D and 100-H Areas, are summarized below and detailed in RCBRA Literature Review (PNNL-SA-41467). Most recently, investigations of riparian and nearshore areas were conducted as part of the RCBRA (DOE/RL-2007-21; *100 Area and 300 Area Component of the RCBRA Sampling and Analysis Plan* [DOE/RL-2005-42], hereinafter called RCBRA SAP).

L1.3.1 100-D Area

Investigations that were historically conducted in the riparian and nearshore areas of the 100-D decision area are summarized below and detailed in RCBRA Literature Review (PNNL-SA-41467). Most recently, investigations of riparian and nearshore areas were conducted as part of the RCBRA (DOE/RL-2007-21; RCBRA SAP [DOE/RL-2005-42]).

Investigation of Ground-Water Seepage from the Hanford Shoreline of the Columbia River (PNL-5289) evaluated approximately 66 km(71 mi) of the Hanford Site shoreline, and identified 115 riverbank spring and groundwater seepage areas. Riverbank spring water was analyzed for tritium, uranium (primarily in the 300 Area), and nitrate, with selected samples analyzed for strontium-90, technetium-99, and gross beta. Contaminant data specific to the 100-D Area riverbank springs indicate slightly elevated concentration of nitrates reported (maximum concentration 2,000 mg/L).

1988 Hanford Riverbank Springs Characterization Report (PNL-7500) characterized the concentrations of radionuclides and chemicals in riverbank springs (that is, groundwater seepage) entering the Columbia River along the Hanford Site. The 100-D Area shore was reported as not being a major source of groundwater discharge. One riverbank spring at Hanford river marker (HRM) 11 was sampled. The concentration of tritium was less than the analytical detection limit, and nitrate levels were well below the drinking water standard. The level of strontium-90 was elevated compared to Columbia River concentrations but well below the drinking water standard. Chromium levels were measured but were below detection.

In 1991, samples of Columbia River water, riverbank spring water, and riverbank spring sediment were collected from two springs (110-1 and 110-2) at the 100-D Area. Riverbank spring water from these locations had the highest levels of chromium (72 to 124 µg/L) measured during the entire study. In addition, tritium (1,200 to 3,100 pCi/L), strontium-90 (1.8 to 4.5 pCi/L), technetium-99 (0.3 to 4.9 pCi/L), and total uranium (0.9 to 1 pCi/L) were found in riverbank spring water. Columbia River water collected near these riverbank springs was below the detectable levels for chromium, strontium-90, and technetium--99. Total uranium levels in Columbia River water at the 100-D Area were above the detection limit but were similar to background locations. Samples of riverbank spring sediment from the 100-D Area had the highest concentration of chromium (122 mg/kg) for all sediment sampling locations. Gross beta concentration is the riverbank spring sediment ranged from 18 to 19 pCi/g; however, all other radionuclides were below the detection limits or similar to other locations.

In 1991, a sediment survey of the 100 Areas included sediment samples at the 100-D Area (*100 Area Columbia River Sediment Sampling* [WHC-SN-EN-TI-198]). In that survey, six sediment samples were collected at four locations along the shoreline adjacent from and downstream from the 100-D Area. Maximum concentrations of uranium-233/234 and uranium-238 were no different from upstream background samples. Cesium-137 and europium-152, were higher than the background samples (cesium--137, maximum 1.3 pCi/g; europium-152, maximum 0.9 pCi/g). Nine radionuclides were detected in the 100-D Area but not detected either in the background samples or in samples from the 100-B/C or the 100-K Areas. These radionuclides were cobalt-60 (maximum 0.41 pCi/g),

europium-154 (maximum 0.04 pCi/g), europium-155 (maximum 0.04 pCi/g), uranium-235 (maximum 0.02 pCi/g), neptunium-237 (maximum 0.48 pCi/g), and americium-241 (maximum 0.24 pCi/g).

Four metal concentrations in the sediment samples from the 100-D Area (*100 Area Columbia River Sediment Sampling* [WHC-SN-EN-TI-198]) exceeded the 95 percent upper threshold limit (UTL). Concentrations exceeding the 95 percent UTL were chromium (one sample, maximum 47 µg/g), copper (one sample, maximum 34.2 µg/g), lead (five samples, maximum 27.3 µg/g), and zinc (six samples, maximum 257 µg/g). While lead concentrations exceeded the 95 percent UTL, values were similar to those from sediment taken at Vernita, upstream from the 100 Areas.

L1.3.2 100-H Area

Investigation of Ground-Water Seepage from the Hanford Shoreline of the Columbia River (PNL-5289) identified riverbank springs and groundwater seeps along the length of the Hanford Site shoreline and presented analytical results for the 100-H Area. This study reported maximum concentrations of tritium ranging from 64,900 pCi/L in monitoring wells to 4,000 pCi/L in spring samples, compared to 65 pCi/L in a river water sample. The maximum nitrate concentration was 5,750 µg/L from a spring sample.

1988 Hanford Riverbank Springs Characterization Report (PNL-7500) characterized the concentrations of radionuclides and chemicals in riverbank springs (that is, groundwater seepage) entering the Columbia River along the Hanford Site. Most of the previously reported riverbank springs were not flowing during the period of this study. A small riverbank spring on the Columbia River shoreline at HRM 15 was successfully sampled on two occasions. The concentrations of both tritium and nitrate varied widely between two sampling periods and were likely influenced by bank storage effects. The reported concentrations of tritium (<3,000 pCi/L) were less than the nitrate concentrations with no indication of elevated concentrations of other radionuclides. An extensive chemical analysis did not reveal any elevated levels of contaminants including chromium (maximum concentration <10 µg/L).

In 1991 (*Sampling and Analysis of 100 Area Springs* [DOE/RL-92-12]), samples of Columbia River water, riverbank spring water, and riverbank spring sediment were collected from 26 locations from the 100-B Area to the upriver portion of the Hanford townsite (HRM 25.2). The samples were analyzed for radiological and chemical contaminants. Five springs (144-1, 145-1, 145-21, 150-1, and 153-1) were located and sampled at the 100-H Area. Riverbank spring water from these locations contained detectable levels of chromium (16 to 52 µg/L), tritium (400 to 3,800 pCi/L), strontium-90 (0.4 to 13 pCi/L), and total uranium (0.7 to 1.2 pCi/L). Columbia River water samples collected near these riverbank springs had concentrations below the detectable levels for chromium, strontium-90, and technetium-99. Total uranium levels in Columbia River water samples at the 100-H Area were detected but were similar to background locations. Samples of riverbank spring sediment from the 100-H Area had the highest concentration of chromium (122 mg/kg) for all sediment sampling locations.

Columbia River water samples collected adjacent to the riverbank springs had results that were at, or near, detection limits. Riverbank spring sediment from the 100-H Area had detectable levels of strontium-90 and cesium-137.

Also, during 1991 (*100 Area Columbia River Sediment Sampling* [WHC-SN-EN-TI-198]), eight samples were collected from locations upstream and downstream from the 100-H Area. Six of eight samples had detectable levels of cobalt-60, and the maximum concentration was 0.38 pCi/g. Sediment concentrations of europium-152, uranium-233/234, and uranium-238 were generally above detection limits and above reference level at Vernita. For europium-152, the maximum concentration was 1.8 pCi/g; for uranium-233/234, the maximum concentration was 2.3 pCi/g; and for uranium 238, the maximum concentration was 2.3 pCi/g. Of the remaining radionuclides (uranium-235, neptunium-237, and

plutonium-239/240), only a single sediment sample had concentrations above the detection limit. The concentration of plutonium-239/240 was 0.07 pCi/g in this sample.

In addition to the radiological analysis described above, samples were also analyzed for chromium, copper, lead, and zinc (*100 Area Columbia River Sediment Sampling* [WHC-SN-EN-TI-198]). Concentrations in the sediments were compared to the 95 percent confidence interval of the 95 percentile of the Hanford Site soil background dataset (95 percent UTL). For chromium, only two samples had concentrations exceeding the 95 percent UTL, the maximum concentration was 28.9 µg/g (compared to 28 µg/g for the background site). Copper concentrations were also generally below the 95 percent UTL, with only three samples being above the threshold. The maximum copper concentration was 42.7 µg/g, compared to a threshold of 30 µg/g. Lead and zinc concentrations in all eight samples exceeded the 95 percent UTL. The maximum lead concentration was 43.3 µg/g (threshold – 14.9 µg/g), and the maximum zinc concentration was 397 µg/g (threshold – 79 µg/g).

L1.3.3 Surface Environmental Surveillance Program

In addition to the historical investigations stated above, other sampling and analytical data have been collected from riparian and nearshore areas as part of the Surface Environmental Surveillance Program (SESP). The SESP is responsible for sitewide and offsite environmental surveillance at Hanford. Surface environmental surveillance at the Hanford Site is a multimedia environmental monitoring effort conducted to assess onsite and offsite human health exposures to radionuclides and chemicals and to evaluate the impact of Hanford Site operations on the environment.

The SESP does not routinely monitor Columbia River water near 100-D and 100-H. The nearest routinely monitored locations are the annual cross-river transects at 100-N and 100-F. Riverbank spring samples are collected from a range of locations along the shoreline of both 100-D and 100-H. Groundwater enters the Columbia River at these locations, with some contaminant concentrations higher than background concentrations.

The trends in metals concentrations in spring samples are reported to have been consistent over the past several years. With the exception of chromium, concentrations of metals in spring samples in 100-D and 100-H were below Washington State chronic ambient surface water quality criteria in "Water Quality Standards for Surface Waters of the State of Washington" (WAC 173-201A). Concentrations of radionuclides detected in springs in 2009 were reported to be similar to those in previous years. Potassium-40 (natural background), cesium-137, and uranium isotopes were the only radionuclides reported above minimum detectable concentrations. Concentrations of radionuclides and metals in 100-D and 100-H sediments were similar to levels detected in previous years (*Hanford Site Environmental Report for Calendar Year 2009* [PNNL-19455]).

L1.3.4 Groundwater and Aquifer Tube Monitoring Programs

The U.S. Department of Energy (DOE) monitors groundwater at the Hanford Site to fulfill a variety of state and federal regulations, including the *Atomic Energy Act of 1954* (AEA), the *Resource Conservation and Recovery Act of 1976*, the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*, and "Model Toxics Control Act—Cleanup" (WAC 173-340). The groundwater monitoring data relevant to the 100-D/H riparian/nearshore environment are discussed further in Section 3 of this appendix.

DOE monitors groundwater quality along the Columbia River by collecting samples from aquifer tubes and riverbank seeps (springs). The rise and fall of the Columbia River create a zone of interaction that influences contaminant concentrations and groundwater flow patterns. Water samples from aquifer tubes and riverbank seeps nearly always represent a mixture of river water and approaching groundwater. In general, the degree of dilution by river water decreases with depth in the aquifer near the river

shoreline. The degree of dilution also varies by location and with seasonal river cycles (*Zone of Interaction Between Hanford Site Groundwater and Adjacent Columbia River: Progress Report for the Groundwater/River Interface Task Science and Technology Groundwater/Vadose Zone Integration* Project [PNNL-13674]).The aquifer tube and seep data relevant to the 100-D and 100-H riparian/nearshore environment are discussed further in Section L3 of this appendix.

L1.4 Approach to CSM Development

As described previously, the objective for developing this CSM is to provide a tool for evaluating the potential for contaminants in riparian and nearshore media to be associated with releases from Hanford-related sources. The foundation for developing the CSM begins with the definition of the following environmental zones presented in the RCBRA (DOE/RL-2007-21):

- **Nearshore aquatic zone:** the nearshore aquatic zone includes the surface water of the Columbia River from the area that is permanently inundated by river water (that is, the low-water mark, commonly referred to as the "green line," where the periphyton remain green year-round) up to the riparian zone.
- **Riparian zone:** the riparian zone is a transition area between the aquatic environment in the nearshore zone and the upland zone. The riparian zone extends from the shoreline of the Columbia River to the point on the riverbank where upland vegetation becomes dominant. The riparian zone typically is narrow and varies in width depending on the slope of the riverbank.
- **Upland zone:** the upland zone, which consists of land that extends inland from the riparian zone, is situated approximately 3 m (10 ft) above the river high-water mark. The upland zone generally is dry and not readily influenced by river flow. Recharge to groundwater in this zone occurs largely from precipitation. The upland zone includes operational areas in the 100 Area decision areas and generally is where waste sites are located.

These environmental zones are depicted on Figures L-1 and L-2.

Potential exposure pathways from source OUs and the underlying groundwater OU located in the upland zone have been traced to media in the riparian and nearshore zones. An exposure pathway can be described as the physical course that a contaminant takes from the point of release to a receptor. The route of exposure is the means by which a contaminant comes into contact with a receptor. For an exposure pathway to be complete, all of the following components must be present:

- A source
- A mechanism of contaminant release and transport
- An environmental transport medium
- An exposure point
- An exposure route
- A receptor or exposed population

In the absence of any one of these components, an exposure pathway is considered incomplete and, therefore, creates no risk or hazard.

An additional consideration for contaminants detected in riparian and nearshore zones is a contaminant source, or sources, unrelated to Hanford Site operations, that have been transported and deposited via the river. These other sources also are discussed as part of this CSM. Identification of potential exposure pathways in the riparian and nearshore zones is described in Section L2.

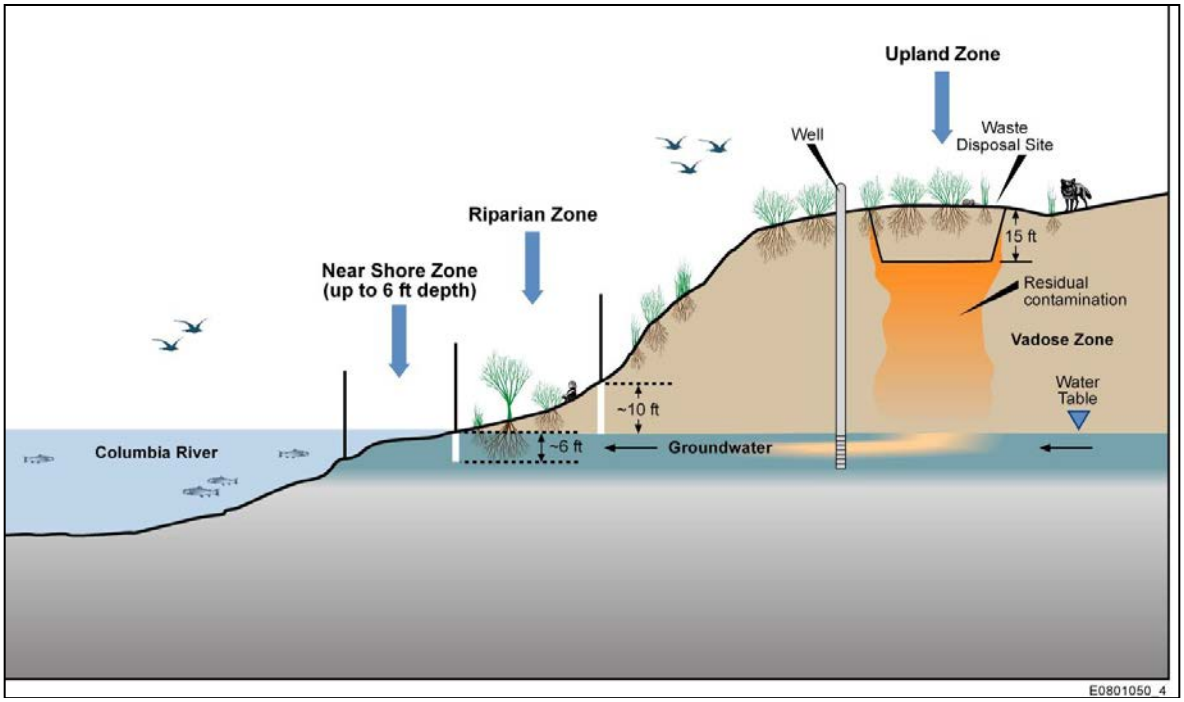

Figure L-1. Environmental Zones in the Riparian/Nearshore Area

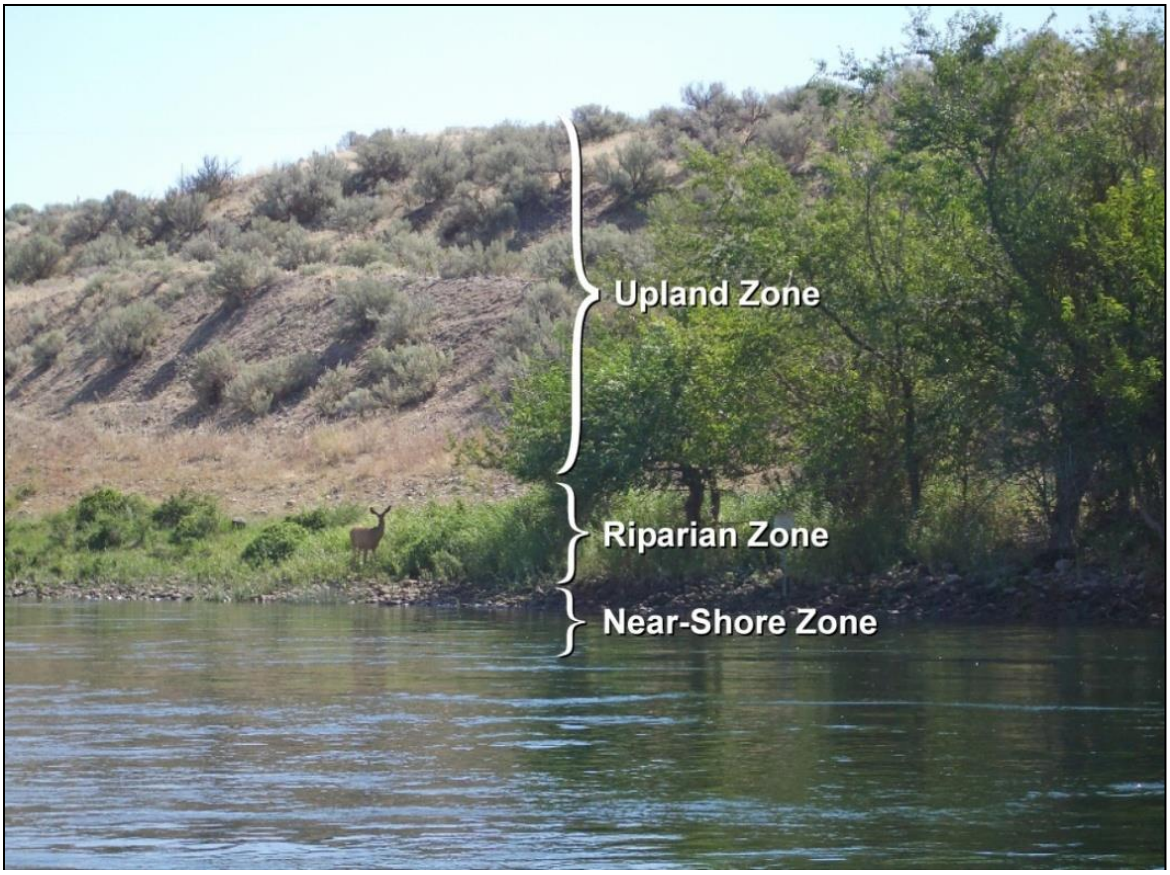

Figure L-2. Photograph Depicting the Environmental Zones

Once the potential exposure pathways are identified and described, sampling and analytical data from various media are evaluated. The objectives for this evaluation include depicting the relative concentrations in the various riparian and nearshore media and evaluating data quality. Media in the riparian and nearshore areas that have been sampled include groundwater, pore water, seeps/springs, surface water, sediments, biota, and soil. The results from this data evaluation are combined with the exposure pathway information (described previously) to determine if contaminant concentrations located at exposure points are potentially associated with Hanford Site activities. The data evaluation is described in Section L3.

An evaluation of potential ecological risks in riparian and nearshore zones was conducted as part of the RCBRA (DOE/RL-2007-21). The results from this evaluation are summarized in Section L4. These results, which identified COECs, are compared with the results from the data evaluation in Section L3 to determine if those COECs might be associated with Hanford Site activities.

L2 Evaluation of Riparian and Nearshore Exposure Pathways

This section describes the sources, release and transport mechanisms, environmental media through which contaminant transport occurs and exposure points in the riparian and nearshore zones. This section provides the framework for the data evaluation that is presented in Section L3.

L2.1 Sources

A total of 312 waste sites are found in the 100-D and 100-H Areas, located principally in the upland zone. As described in RCBRA Literature Review (PNNL-SA-41467), the riparian environment immediately adjacent to the 100-D area is composed of a relatively narrow vegetative zone usually less than 50 m (164 ft) wide along the river northwest of the facility. The riparian area immediately adjacent to the 100-H Area is composed of a relatively narrow zone usually less than 100 m (328 ft) along the Columba River to the north and west of the facility. The riparian zone becomes significantly broader and more diverse with respect to types of vegetation cover 500 m (1,640 ft) downriver from 100-D and at the southwest end of the 100-H Area boundary and immediately downstream from the facility.

L2.1.1 Waste Sites and Soils

The waste sites located close to the riparian zone in the 100-D and 100-H Area OUs are presented on Figures L-3 and L-4. Brief descriptions of these sites are presented in the following paragraphs. The nature and extent of contamination has been characterized, or is currently being characterized for these waste sites. While it is not known that there are potential releases or exposure pathways from these sites, their proximity to the riparian area makes them candidates for consideration as potential sources in this evaluation.

L2.1.1.1 100- D Area

100-D-8 (100-DR Process Sewer Outfall Site). This site is located upstream from the 181-D Pumphouse on the Columbia River bank. The outfall was constructed in 1949 as a spillway for an emergency discharge for the DR Reactor. It consisted of a 1.8 m (72 in.) diameter, reinforced concrete pipe. The pipe discharged into a concrete box flume that spilled onto a grouted riprap surface and extended about 13.1 m (43 ft) beyond the low-water level of the Columbia River. The outfall was mainly used to discharge wastewater from the 183-DR and 190-DR Water Treatment Facilities. This was also a former outfall and spillway for the 100-D-50:1 process sewer and as an emergency discharge sewer for the 105-DR. Effluents included filter backwash effluent, storm runoff, and chemical discharges resulting from spills or releases relating to water treatment facilities. This waste site has been classified as accepted and is currently inactive.

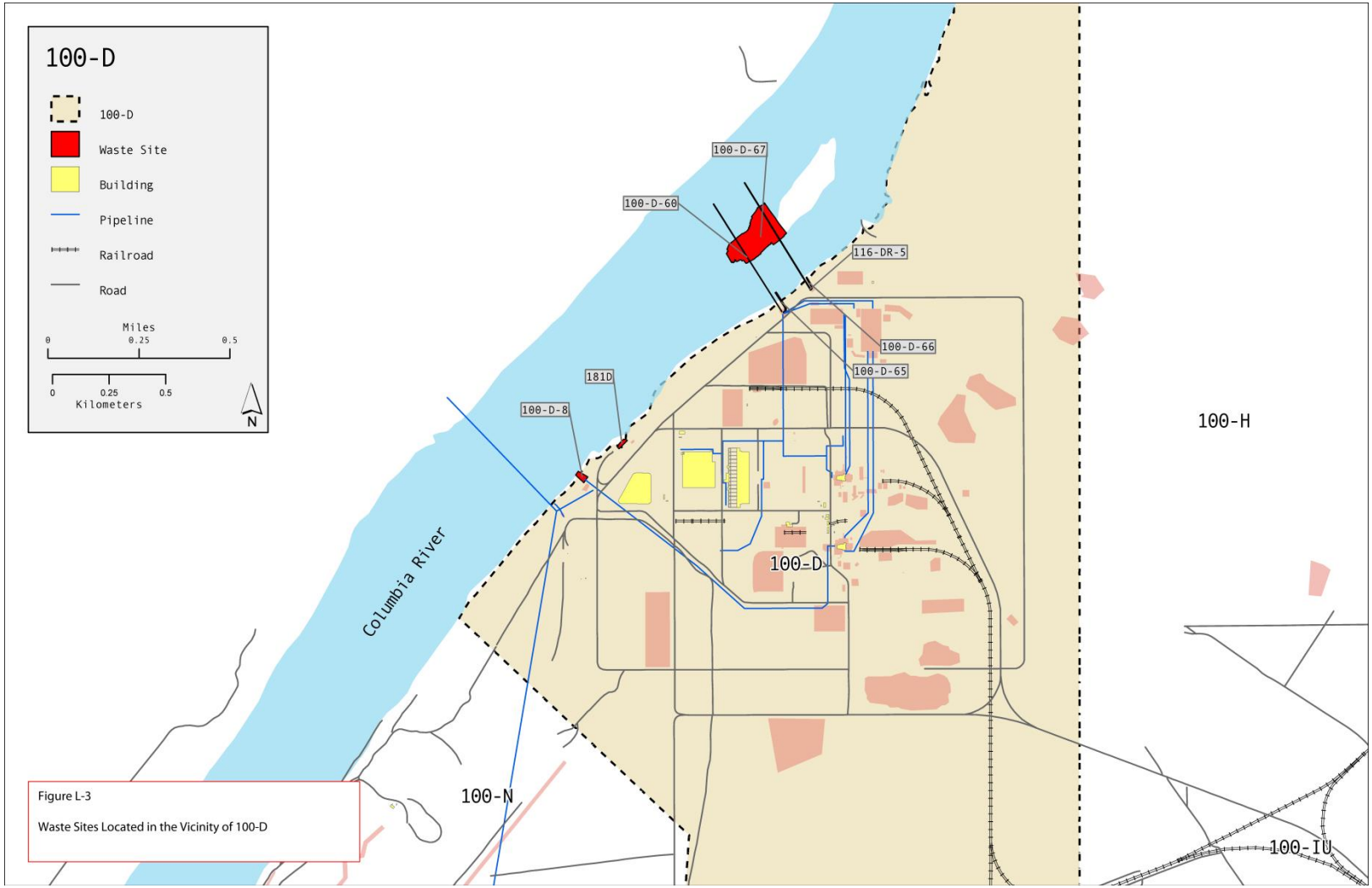

Figure L-3. Waste Sites near near100-D

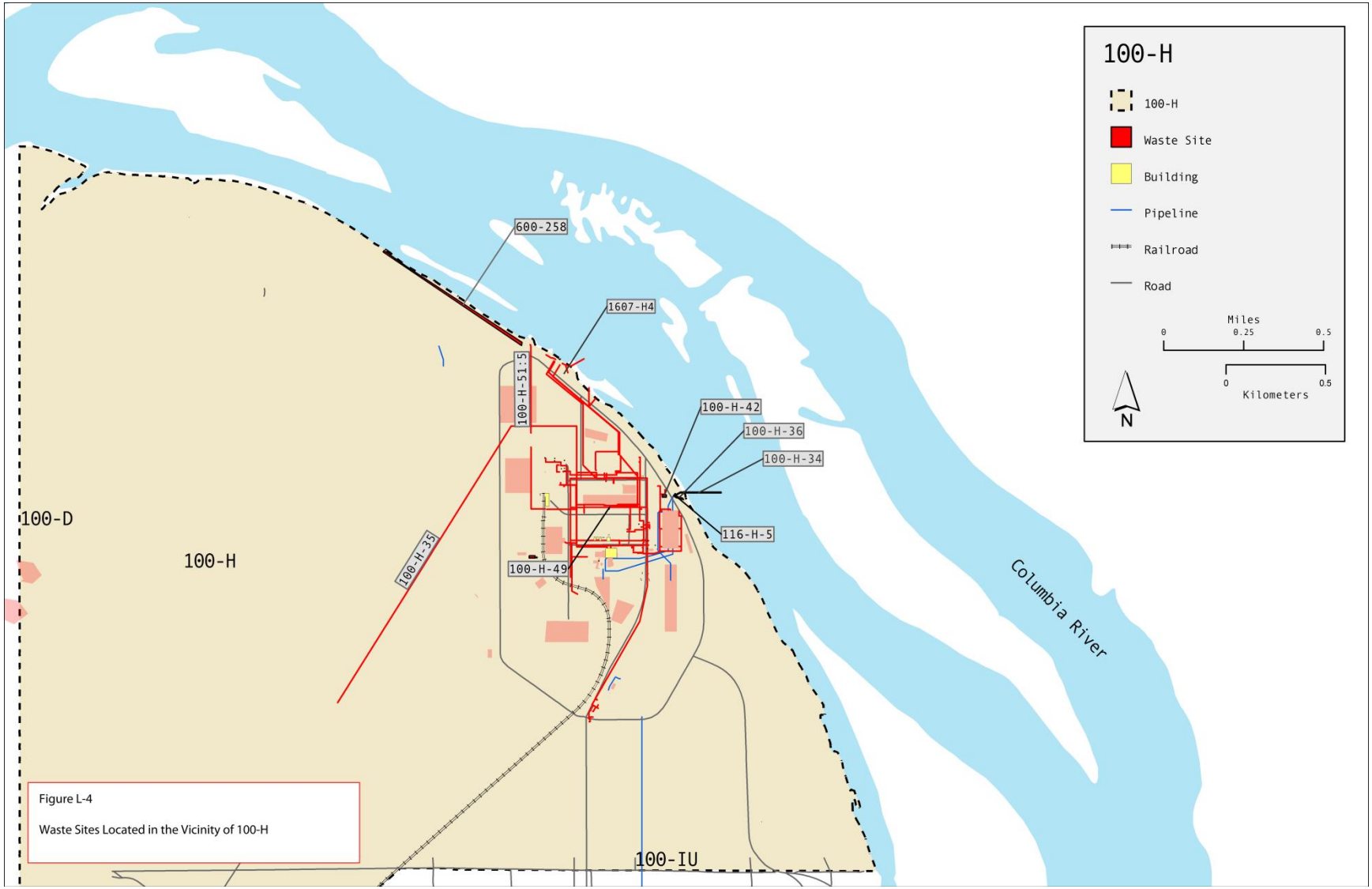

Figure L-4. Waste Sites near 100-H

100-D-60 (100-D River Lines). This site is a radioactive process sewer with river lines located in the Columbia River, adjacent to the 100-D/DR Area. The lines extend northwest from two outfall structures located near the river shore, through D Island, into the main channel of the river. Reactor cooling water and process sewer wastes were collected and temporarily stored in the 107-D and 107-DR Retention Basins before being pumped to the river via the 116-D-5 and 116-DR-5 outfall structures and associated river effluent pipelines. The site is associated with the 116-D-5 (1904-D Outfall), 100-D-65 Spillway, the 116-DR-5 (1904-DR Outfall), 100-D-66 Spillway, 100-D-48 (the 100D process effluent lines), 100-D-49 (the 100 DR process sewer lines), and the 100-D-31 (100D water treatment facilities underground pipelines). This waste site has been classified as accepted and is currently inactive.

100-D-65 (116-D-5 Outfall Spillway). This site is an outfall structure and is located northwest of 116-D-7 (the 107-D Retention Basin) and upstream from 116-DR-5 (the 1904 DR Outfall Structure). There is an engineered erosion barrier of heavy riprap beginning at the discharge end and extending for an additional 6 m (20 ft). The spillway was an alternate discharge point for the 1904-D Outfall Structure. It was planned to be used only if the 100-D-60 river effluent pipelines were blocked, damaged, or undergoing maintenance. Sampling at this location has showed some evidence of use. This waste site has been classified as accepted and is currently inactive.

100-D-66 (116-D-5 Outfall). This site is an outfall structure and is located northwest of 116-D-7 (the 107-D Retention Basin) and downstream from 116-DR-5 (the 1904 DR Outfall Structure). There is an engineered erosion barrier of heavy riprap beginning at the discharge end and extending for an additional 6 m (20 ft). The spillway was an alternate discharge point for the 1904-D Outfall Structure. It was planned to be used only if the 100-D-60 river effluent pipelines were blocked, damaged, or undergoing maintenance. Sampling at this location has showed some evidence of use. This waste site has been classified as accepted and is currently inactive.

100-D-67 (D Island Contamination). The D Island location is a tapered, 213 m (700 ft) wide island, located approximately 183 m (600 ft) from the shoreline, directly across from the D and DR outfalls. This site is an unplanned release site near the southeast shore of the Columbia River and consists of contamination spread from vent risers that extended from the buried river effluent pipelines (100-D-60). The island received contamination from the 116-D-5 and 116-DR-5 Outfall Structures via vented river effluent pipelines during operation of 100-D/DR Area. This waste site has been classified as accepted and is currently inactive

116-DR-5 (1904-DR Outfall Structure). This site is located at the top of the riverbank, north of the northwest corner of 116-D-7 (107-D Retention Basin). The site consists of an open, reinforced, compartmentalized concrete outfall structure that routinely discharged effluent to the Columbia River via the river effluent pipelines (100-D-60). When the river pipelines were blocked, damaged or undergoing maintenance, the flow was diverted to a concrete overflow spillway (flume) (100-D-66). This site is associated with the D Island contamination (100-D-67), 107-D Retention Basin (116-D-7), the 107-DR Retention Basin (116-DR-9), 100 D Reactor Cooling Water Effluent Lines (100-D-48), the 100 DR Reactor Cooling Water Effluent Lines (100-D-49), the 100D River Effluent Lines (100-D-60) and Flumes (100-D-66). This inactive waste site has been classified as accepted and is currently undergoing remediation.

L2.1.1.2 100- H Area

600-258 (Dumping Area). This site is located to the northeast of the road that follows the Columbia River, north of the 100-H Area. The site is a documented historic site in the Cultural Resources database. By the direction of the cultural resources staff, it should not be cleaned up. The site extends for a long way along the river. However, most of the debris is in the northwestern-most 125 m (410 ft). The site is

surface debris from pre-Hanford activities. It is on the riverbank, facing the White Bluffs, and is covered with vegetation matching the surrounding terrain. The debris on the ground is mostly old metal wire used to wrap wooden irrigation pipes. It appears to have been pushed over the edge as a way to clean up the fields. A small concrete structure is at the northern edge of the site. The structure appears to have been filled in with dirt. The debris is scattered over the length of the site. This has been classified as not accepted and is currently inactive.

100-H-34 (100H River Effluent Pipelines). This site includes the river effluent pipelines (river lines) that extend from the outfall (116-H-5) into the main channel of the Columbia River. This site includes two 152 cm (60 in.) diameter (1.3 cm [0.5 in.] thick walls), steel river effluent pipelines that extend 229.5 m (753 linear ft) from the face of 116-H-5 (the 1904 H Outfall structure) into the main channel of the Columbia River. The river lines are located in the Columbia River, adjacent to the 100-H area. The lines extend east into the main channel of the river from the 1904-H Outfall. The river effluent pipelines extend perpendicular from the discharge (river side) face of the 1904-H Outfall structure for 20.3 m (66.5 ft), then take a 19 degree downstream bend and continue on for another 209.2 m (686.5 ft). This site has been classified as accepted with status being inactive.

100-H-35 (100-H Clean Water Pipelines). This site encompasses the clean water pipelines for the 100-H Area, including underground pipelines used to transport raw water from the river pumphouse to the water treatment facilities and to 100-H Area facilities and fire hydrants. Pipelines excluded from this site include those within buildings, process and sewer pipes, pipes that carried water treated with sodium dichromate, and all lines that were downstream from the reactor building (that is, those lines that carried cooling water from the reactor to the retention basin, trench, and/or the river). The clean water (non-contaminated) underground pipelines were located across the 100-H Area, from the 181-H Intake structure to the water treatment facilities, reactor (fire and potable water, not reactor cooling water), south to the fire and patrol headquarters near the 1607-H-3 Patrol Headquarters area, west to miscellaneous shops and warehouses, and the 184-H Coal Fired Powerhouse. The export water line entered the H Area from the 100 DR Area north of the coal storage area; it turned south along the road, then east to the 182-H Reservoir. This line also continued further south and turned east where it entered the 105-H Reactor on the north side. The site has been classified as accepted with the status being unknown.

100-H-36. This site is an underground concrete sluiceway (also referred to as a flume) that led from the 116-H-5 Outfall structure to the river shoreline. The site is located on the Columbia River shoreline north of the 116-H-7 Retention Basin. This underground spillway exits the south face of the 116-H-5 Outfall and takes an immediate 45-degree turn in the upstream direction, and terminates. The spillway carried effluent overflow from the outfall (116-H-5) structure to the shoreline of the river for release. It was planned to be used only if the river effluent pipelines (100-H-34) were blocked, damaged, or undergoing maintenance. The slope between the outfall and the river is covered with large basalt riprap boulders that have been mortared in place, extending about 73 m (80 yd) north and south of 116-H-5. The exit end of the underground sluiceway has been covered with concrete rubble and is no longer visible. A shallow, dish-shaped concrete runoff pad extends across the beach from the spillway exit to the low water line. This site has been classified as accepted with status being inactive.

100-H-42 (1906-H Drainage Lift Station). The site is known as the 1906-H Drainage Lift Station, is located in the 100-HR-1 Operable Unit, and is approximately 75 m (246 ft) north of the 107-H Retention Basin. The 1906-H Drainage Lift Station was designed to receive process sewer discharges (primarily floor drains) from all of the non-radioactive buildings in H-Area. The structure consisted of a rectangular-shaped reinforced concrete reservoir and by-pass flume, surmounted by a one-story concrete-block building over a portion of the reservoir section. Primary structures discharging to this site include 182-H, 183-H, 184-H, 190-H, 1908-H, 1715-H, 1716-H, and 1717-H Buildings. Other associated

structures include 100-H-36 Spillway, 116-H-5, 1904-H Outfall structure, 116-H-7 Retention Basins, and 100-H-34 River Effluent Pipelines. The waste associated with the 1906-H Lift Station includes piping and remaining equipment (pipeline and concrete reservoir), rubble, and underlying soils. The site has been classified as accepted with the status being inactive.

100-H-49 (Potentially Contaminated French Drain). This site consists of sixteen French drains, the underlying soil of the potentially contaminated French drains, and their associated below grade piping components. This site has been divided into three subsites as follows: 100-H-49:1, 184-H Boiler House and 1717-H Hot Shop French Drains; 100-H-49:2, 119-H, 181 -H, 184-H, and 183-H French Drains; 100-H-49:3, 183-H, and 1717-H French Drains. The site has been classified as accepted with the status being inactive.

100-H-53 (Carbon Steel Pipe in River Bank). This site is located approximately 28 m (92 ft) north-northeast of the southeast end of site 600-258 (Pre-Hanford debris), and it is located near the shoreline. This site is a 25 cm (10 in.) diameter and 1.8 m (6 ft) long (exposed portion) carbon steel pipe that runs northeast toward the river shore. The process associated with this pipe is unknown. The pipeline may have been related to pre-Hanford activities, because there is this type of debris associated with 600-258. Site 600-258 is located on top of the bank, and the pipe is located towards the south end of 600-258. This site has been classified as accepted and is currently inactive.

100-H-51:5 (Potentially Contaminated Pipeline Segments). This site consists of a 25.4 cm (10 in.) carbon steel pipe located between the Columbia River shoreline and the 184-H Power House. The pipeline is a steel pipe that ran from the Columbia River to the sanitary water system just south of the 1713-H building. The site has been classified as accepted with the status being inactive.

100-H-56 (H-Area Miscellaneous Pipelines). This site consists of all 100-H Area miscellaneous pipelines not associated with an existing waste site. The pipelines were observed during remediation. The pipelines are located within the 100-H Area. The site has been classified as a discovery site, with the status being inactive.

1607-H-4 (Sanitary Sewer System). The site is where an old septic tank was located on a bluff above the Columbia River, southeast of the 181-H Building and south of the 181-H access road. The unit included a septic tank, tile field, and associated piping. The system had a six-person capacity and an average detention period of 24 hours. The tile field was constructed of 10 cm (4 in.) pipe, 2.4 m (8 ft) in length. Some septic tanks in the 100 Areas were identified as potentially contaminated because personnel decontaminations were performed in change rooms where the sinks and showers drained to the sanitary sewage systems, not the process sewers. This site has been classified as interim closed out.

116-H-5 (Outfall Structure). This site is located on the Columbia River shoreline north of 107-H Retention Basin. This site includes the open-topped, compartmentalized, reinforced concrete outfall structure. The aboveground portion of the outfall has been demolished into its base. The base has been backfilled with soil to a level approximately 0.61 m (2 ft) above grade. The upper portion of the structure was demolished, and the cavity was filled to grade with clean soil. During a site visit in 2005, the soil-filled outline of the structure was visible at ground level. This site received effluent water through two lines from the 107-H Retention Basin. A third line from the 100-H Area Process Sewer also discharged to it. This inactive waste site is classified as accepted and is under remediation.

L2.1.2 Groundwater

The 100-HR-3 OU includes groundwater impacted by contaminant releases from facilities and waste sites within 100-D/H. Most of the facilities and waste sites are associated with former operation of the 105-D, 105-DR, and 105-H Reactors and their support facilities.

The principal groundwater issues for the 100-HR-3 OU are: (1) chromium contamination, in the form of hexavalent chromium, which underlies much of the 100-D Area as two distinct plumes. The northern plume likely originates from cribs and trenches in the central 100-D Area, while the southern plume originates near the former sodium dichromate transfer station; (2) a hexavalent chromium plume in the horn area, thought to have originated from the 100-D Area. Sampling results show continuous hexavalent chromium concentrations in the horn area between 100-D and 100-H, though the highest concentrations are restricted to immediately adjacent to the 100-D Area; (3) hexavalent chromium contamination from former liquid waste disposal sites in the 100-H Area. Concentrations of hexavalent chromium in groundwater have diminished considerably as a result of pump-and-treat operations in the 100-H Area. Hexavalent chromium is the principal contaminant of concern in groundwater in the 100-D and 100-H Areas. Other contaminants detected in groundwater are strontium-90, tritium, and nitrate.

Generally, groundwater enters the 100-HR-3 OU from the south, with most of the flow moving towards the low elevation near the 100-H Area. Inland from the Columbia River and in the eastern portions of the 100-D Area, flow direction changes to a northeasterly direction. Northeast of the 100-D Area, groundwater flow becomes easterly across the horn area and towards the 100-H Area. Groundwater from the 100-D Area discharges to the Columbia River, as does groundwater within and northeast of the 100-H Area.

Groundwater flow in the 100-D and 100-H Areas is also influenced by the stages of the Columbia River. The river water elevation changes regularly in seasonal and shorter cycles (for example, daily river stage change) because of a combination of natural and anthropogenic influences (for example, releases from upstream dams). During the fall, when river stage is relatively low, natural groundwater flow is toward the river. When river stage is high in the spring, groundwater can flow away from the river. High river stages can be more than 3 m (10 ft) higher than low river stages. The river stage also can fluctuate several feet over short periods (that is, hours to days) based on operations at the upstream Priest Rapids Dam. Changing river stage can influence groundwater elevations over 1 km(0.6 mi) inland from the river in the 100-HR-3 OU. In addition, because the hydraulic head is lower downgradient at the 100-H Area, regional flow from the south tends to flow toward the 100-H Area (*Hanford Site Groundwater Monitoring and Performance Report for 2009: Volumes 1 & 2* [DOE/RL-2010-11]).

L2.2 Contaminant Release and Transport Mechanisms

Release and transport mechanisms potentially most likely associated with the occurrence of Hanford Site contaminants in riparian and nearshore zones are overland transport from waste sites, and contaminant leaching from the vadose zone to underlying groundwater, followed by lateral transport in groundwater.

L2.2.1 Overland Transport from Waste Sites

Hazardous and radioactive substances that are in surface materials can be transported away from facilities or known waste sites by surface runoff following precipitation events. Overland flow is water flow over the ground surface that occurs from precipitation, either rainfall or snowmelt that is greater than obstruction demands (interception, evapotranspiration, or infiltration). In addition, overland flow can occur from the spillage of process effluent that historically had been discharged into liquid waste disposal units. Overland flow potentially results in the transport of contaminated sediments or water away from a waste site into other areas, such as the riparian or nearshore locations. Factors that affect overland flow include slope of the ground surface, soil texture, vegetative cover, and frequency of precipitation.

There are relatively few examples of overland flow potentially from 100-D and 100-H sites into riparian or nearshore areas. Contamination of riparian and nearshore media would likely be more associated with historical releases from outfall structures from the reactors and retention basins. In addition, the 100-D-67 site is an unplanned release area located on the D Island that had received liquid discharges

from the outfall structures and effluent pipelines. The effluent pipelines reportedly were the source of Cobalt-60 particulates found on the island. While these could potentially run off to the river under high-stage conditions, aerial surveys of the Hanford Site have shown decreases in radioactivity on the D Island (due to radioactive decay of Cobalt-60).

L2.2.2 Contaminant Leaching from Waste Site Soils to Groundwater

Large quantities of sodium dichromate and chromic acid (hexavalent chromium) that were released at the 100-D and 100-H Areas leached to groundwater. The transport of hexavalent chromium through the vadose zone was facilitated by the low soil-water distribution coefficient (K_d) of hexavalent chromium along with the historical high volume liquid waste disposal during operations. Residual hexavalent chromium contamination in soil below remediated areas may continue to migrate to groundwater. The historically high liquid waste discharges may have served for hexavalent chromium migration laterally due to mounding, and downward. Other radioactive and hazardous liquid wastes disposed to the soil column have leached to groundwater; as discussed previously, contaminants of concern in groundwater in addition to hexavalent chromium are strontium-90, technetium-99, tritium, and nitrate. Further discussion of the fate and transport of contaminants detected in vadose zone and groundwater is provided in Chapter 5 of the RI/FS report.

One concept important to understanding contaminant fate and transport in 100-D/H is the difference between site conditions during Hanford operations (1955 to 1971) and the current site conditions, which have developed since reactor operations ended. In particular, large discharges of liquid effluents to the soil column ceased when reactor operations ended.

L2.2.3 Transport in Groundwater

Hydrogeological units in the 100-D and 100-H vadose zone consist of Hanford formation sand and gravel overlying the Ringold upper mud, which overlies the Ringold Formation (unit B) and the Lower Mud. Groundwater levels and gradients are affected by Columbia River stage fluctuations. The rise and fall of the water table periodically rewets deep vadose zone contamination, resulting in continuing releases of contamination to groundwater. The increase in the river stage during the spring freshet pushes water inland and causes water table elevation increases throughout 100-D/H. Consequently, the hydraulic gradient is altered and less water flows into the river from the aquifer. During the low river stage in the fall, groundwater flow toward the river dominates, resulting in contaminant release from groundwater to surface water. Depending on the location within 100-D/H, direction variability in flow occurs because of these competing influences. Groundwater remedial actions implemented in the 100-H Area (a pump-and-treat and an in situ redox manipulation system) have reduced the flux of hexavalent chromium to the river.

The groundwater system is highly dynamic, being influenced by regional groundwater conditions, the local site remediation efforts, and the daily and seasonal variations of river stage. The main features of the current conceptual model follow:

- Flow under the site and near the banks is generally assumed to be perpendicular to the river.
- Deeper geologic formations are assumed not to contribute to shallow groundwater or observed river exchanges along the riverbank.
- The daily variability of river stage creates a complex zone of mixing within the near-bank groundwater system.
- Springs observed on the riverbanks are attributed to bank storage of river water and site groundwater discharging to the river when river stage drops.

- Site groundwater generally discharges to the banks via springs and through the bottom of the Columbia River immediately adjacent to the Site.

The site conceptual model needs to include the transient nature of water exchange in this setting at multiple time scales (Figure L-5). For example, a daily 3 m (10 ft) change in river levels superimposed with seasonal changes or alterations of site groundwater flows by remediation efforts likely causes seasonal shifts in the regional groundwater flow system that will consequently impact groundwater-surface water exchange locations and rates. The complex geologic setting, aquifer heterogeneity, and transient nature of the surface water and groundwater results in a complex groundwater flow system. During major Spring discharge events, river water may enter the banks and the adjacent groundwater system upstream from the Site and move laterally parallel to the river for some distance before discharging back into the river (*Technical Evaluation of the Interaction of Groundwater with the Columbia River at the Department of Energy Hanford Site, 100-D Area* [SGW-39305]).

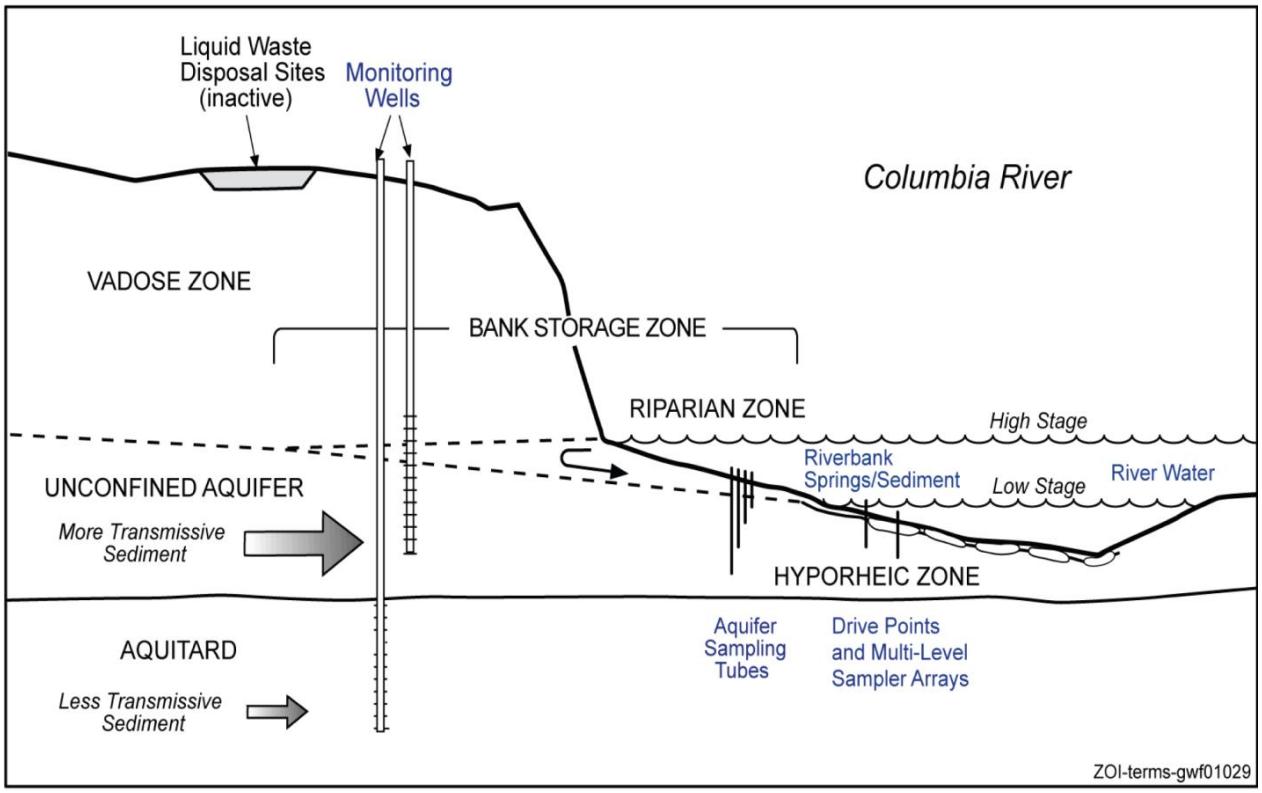

Figure L-5. Conceptual Model of Groundwater-Surface Water Interaction at the Hanford Site

L2.3 Exposure Points in Seeps, Surface Water, Sediments, and Riparian Soils

The RCBRA (DOE/RL-2007-21) showed a cross section of the river which defined the study zones to be the upland zone, the riparian zone, nearshore aquatic zone, and aquatic zone as a vertical panel that extends down from the surface into the subsurface to some undetermined depth when, in reality, they are three-dimensional zones that change size over time. In particular, it is the vertical distribution of the receptors beneath the river and in the deposits adjacent to the river that potentially (that is, the depth to which they are found or bottom of the system) have the greatest implications for remedial actions, because the mechanisms of dilution and mixing of groundwater may not be as effective at greater depths; and so there is greater potential for exposure to contaminants from groundwater.

In the studies of the Columbia River at the Hanford Site, the term hyporheic zone has been used as a general term to describe the zone of all groundwater and surface water mixing. Receptors in the riverbed and benthic and hyporheic zones can be exposed to contaminated (1) groundwater, (2) groundwater surface-water mixtures, or (3) surface water. These distinctions become important when identifying from analytical results in groundwater and surface water contaminants of potential ecological concern that are related to Hanford Site operations.

Investigation of riparian area soils was conducted as part of the RCBRA (DOE/RL-2007-21). The riparian assessment evaluated ecological risks at 18 study sites potentially affected by contamination from Hanford Site sources. Eleven study sites were selected from locations that may be adjacent to or directly affected by known contaminated media (groundwater seeps and springs, soil, and sediment). These sites were located along the Columbia River shoreline near the operating areas (100-B/C, 100-K, and 300 Area) and included six sites with relatively elevated contaminant concentrations and five sites with relatively low contaminant concentrations. Historic data and radiation surveys were used to determine the general contaminant levels at each site. Three of these riparian study sites were located near the 100-D decision area, and four of the study sites were located near the 100-H decision area. These sites are described as follows:

L2.3.1 100-D Area

- **Riparian 2**. This investigation area was located immediately adjacent to the 100-D Area where river velocities are high that scour the cobble- and bolder-dominated shoreline substrates. The site was relatively narrow (approximately 5 m [16 ft]); and the area encompassed approximately 1,200 m^2 (12,917 ft^2) of the shoreline habitat. The site was sparsely vegetated and had an intermittent overstory consisting mostly of mulberry (*Morus* spp.) and elm (*Ulmus* spp.) trees.

- **Riparian 3**. This riparian study site was located in the 100-D Area. The site was 200 m long of varying widths less than approximately 10 m (33 ft), with the entire area encompassing approximately 1,200 m^2 (12,917 ft^2). The selected site had a unique curved shape consisting of an upriver water flow impact area of about 100 m (330 ft), with a jut of land delineating the upriver water impact side from the downriver slackwater side. The investigation area had a steep slope and was covered with varying size rocks from pebbles to riprap and some larger boulders. The investigation area had varying degrees of vegetation from sparse to dense. The downriver area had denser vegetation near shore whereas the upriver water impact area vegetation was predominately near the upper boundary and very sparse near shore. Sand deposits varied in the impact area, with finer sand and high loam and organic content on the slackwater side. Soil moisture content also varied, with the downriver slackwater side having higher moisture content than the coarser sand on the upriver area. Groundwater upwellings were visible along the sandy/silt shorelines within the downriver portion of the site.

- **Riparian 10**. This riparian study site was located immediately downstream from the 100-D Area on a highly scoured corner of the river consisting of very sparse vegetation composed typically of forbs such as chicory (*Chicorium* sp.*),* dogbane (*Apocynum* sp.*),* and tickseed (*Coreopsis* sp.); very few small trees; and medium-sized cobbles with some small deposits of sediment. This area has land-feature relics of gold mining attempts from the early 1900s. Post-spawning salmon carcasses were commonly found decomposing at this site. The site varied between 20 (65 ft) and 30 m (98 ft), with a total shoreline area of approximately 5,400 m^2 (58,125 ft^2).

L2.3.2 100-H Area

- **Riparian 1.** This riparian study site was located about one km (3,280 ft) upstream from the 100-H Area and adjacent to a small island that slowed the river currents and increased sediment depositions. The site was relatively narrow (approximately 5 m [16 ft]) and positioned on a steep embankment that

was densely vegetated, predominately with reed canary grass with an overstory of black locust (*Robinia pseudoacacia*) trees. The entire site area encompassed about 650 m^2 (6,996 ft^2). An old rusty cable was found stretched across the ground surface of the upper half of the study site

- **Riparian 2f**. This investigation area was located immediately adjacent to the 100-D Area where river velocities are high that scour the cobble- and bolder-dominated shoreline substrates. The site was relatively narrow (approximately 5 m [16 ft]) and the area encompassed approximately 1,200 m^2 (12,916 ft^2) of the shoreline habitat. The site was sparsely vegetated and had an intermittent overstory consisting mostly of mulberry (*Morus* spp.) and elm (*Ulmus* spp.) trees.

- **Riparian 8**. This riparian study site was 200 m (656 ft) long with an average width of 10 m (32.8 ft), but varied between approximately 4 m (13 ft) and 15 m (49 ft). The site encompassed an approximate area of 1,800 m^2 (19,375 ft^2) of shoreline and included a cement-encapsulated and riprap-covered section near the upper end of the site where the 100-H Outfall used to be located. The selected investigation area was a flat, straight stretch along the river near the lower end and a steep-sloped stretch with moderate vegetation covering most of the site. The site contains depositional environments near the upper river end and highly scoured small cobble substrate near the downriver section.

- **Riparian 9.** This riparian study site was located immediately adjacent to the 100-H Area This site was very similar to Riparian site #7 except much wider. The width of this riparian site ranged between 25 (82 ft) and 100 m (328 ft), and it encompassed an area of more than 11,000 m^2 (11,8403 ft^2) of shoreline. The site was positioned near the receiving corner of a large bend in the river where sediment deposits were common. The site, however, was scoured regularly from a river channel that develops over the site each year when river flows exceed approximately 160,000 cubic feet per second, flushing the water and resuspending sediment down the back side of the peninsula and emptying into the White Bluffs slough. The site was densely vegetated with predominantly reed canary grass and short-statured mulberry trees. Old metal debris (for example, bolts, barrel straps) was common throughout the site.

Soil samples were collected from study sites and from reference sites using MULTI INCREMENT® sampling (MIS) methodology. This method was designed to obtain representative estimates of the average contaminant concentrations in the study site and control the sampling fundamental error and the grouping and segregation errors associated with measuring soil concentrations. Soil MIS represents surface soils of the 0 to 15 cm (0 to 6 in.) depth interval using a systematic random design across a 200 m (656 ft) long investigation area. The contaminants detected in these soil samples include inorganics (metals), organic compounds including polychlorinated biphenyl (PCB) aroclors, polycyclic aromatic hydrocarbons, phthalates and chlorinated pesticides, and radionuclides. Inorganics in riparian soil in 100-D/H that had been identified as COPECs in the RCBRA (DOE/RL-2007-21) and that were evaluated further were arsenic, barium, cadmium, chromium, Cr(VI), copper, lead, mercury, and zinc. Organic compounds detected in 100-D/H soils were not identified as COPECs in the RCBRA (DOE/RL-2007-21) with the exception of bis-2-ethylhexyl phthalate. Radionuclides were not identified as COPECs; however, radionuclides detected in riparian area soils included cesium-137, cobalt-60, europium-152, plutonium-238, plutonium-239/240, strontium-90, and uranium isotopes. Biota sampling conducted in these sites is described in detail in the RCBRA (DOE/RL-2007-21). Assessment of ecological risks based on the biota sampling is described further in Section L4 of this appendix.

Nearshore study sites sampled as part of the RCBRA (DOE/RL-2007-21) in 2005 were located within three key contaminant plumes originating from Hanford Site operations (Cr(VI) at 100-K and 100-D,

---

® MULTI INCREMENT is a trademark of EnviroStat, Inc. Fort Collins, Colorado.

Stronium-90 at 100-N, and uranium at the 300 Area [RCBRA SAP (DOE RL 2005-42)]). Ten additional study sites sampled in 2006 were located in selected regions where Hanford's legacy materials were known or suspected to have been deposited. Summaries of the study sites located in proximity to 100-D/H follow:

L2.3.3 100-D Area

- **Nearshore Sites Chromium 5 and Chromium 6.** Chromium sites 5 and 6 were located about 400 m (1,312.3 ft) and 600 m (1,968 ft) upstream respectively of the 100-D water intake structure. The substrate consisted of moderately embedded gravels and cobbles and relatively slow water currents. The river was relatively symmetric with no adjacent islands or backwater channels. The low water velocities at this site, coupled with highly embedded substrates, made it unsuitable as steelhead spawning habitat**.**

- **Nearshore Sites Chromium 7, Chromium 8, Chromium 9, and Chromium 10.** Chromium sites 7, 8, 9, and 10 were located along the Hanford shoreline adjacent to the 100-D Area. A small island in front of the 100-D Area splits the river and forms a channel with relatively high flow along the Hanford shoreline. The substrate consisted of relatively clean gravels and cobbles. The relatively fast currents continually scour these areas, and suitable steelhead spawning habitat was documented at all four sites during 2007. Further offshore of these sites, fall Chinook spawning events were common during the late fall.

L2.3.4 100-H Area

- **Nearshore Site 2f**. This site was located near the very crest of the "horn," between 100-D and 100-H Areas and adjacent to an island complex that created three channels of the river. The area was just downstream from a heavily scoured corner of the river, and the site itself was lightly scoured annually during high flow (180,000 cfs or more) periods. However, river flow in the immediate vicinity of this station was generally non-existent. The substrate consisted of gravels and cobbles that were heavily embedded and supported a moderate density of macrophytic vegetation. This site did not have suitable salmonid spawning habitat.

Sediment, pore water, and surface water samples were collected from these sites. Further discussion of these data is incorporated into the data evaluation presented below in Section L3. Biota sampling performed at these sites is described in the RCBRA (DOE/RL-2007-21). Assessment of ecological risks based on the biota sampling results is described in Section L4. Contaminants detected principally in the sediment, pore water, and surface water samples were inorganics (metals and anions) and radionuclides.

L2.4 Routes of Potential Exposure and Receptors

A range of terrestrial and aquatic plant, invertebrate, and wildlife species were considered in the ecological risk assessment conducted as part of the RCBRA (DOE/RL-2007-21), and are discussed in detail in that ecological risk assessment. A conceptual model depicting the exposure pathways is provided on Figure L-6 followed by a depiction on Figure L-7 of the measurement endpoints used to evaluate those pathways to the receptors identified. These measures are discussed in Sections L3 and L4. The measures of abiotic environmental media (for example, groundwater or soil) are compared to effects levels presented in Section L.3.2. Biotic measures and a weight of evidence are discussed in Section L4.

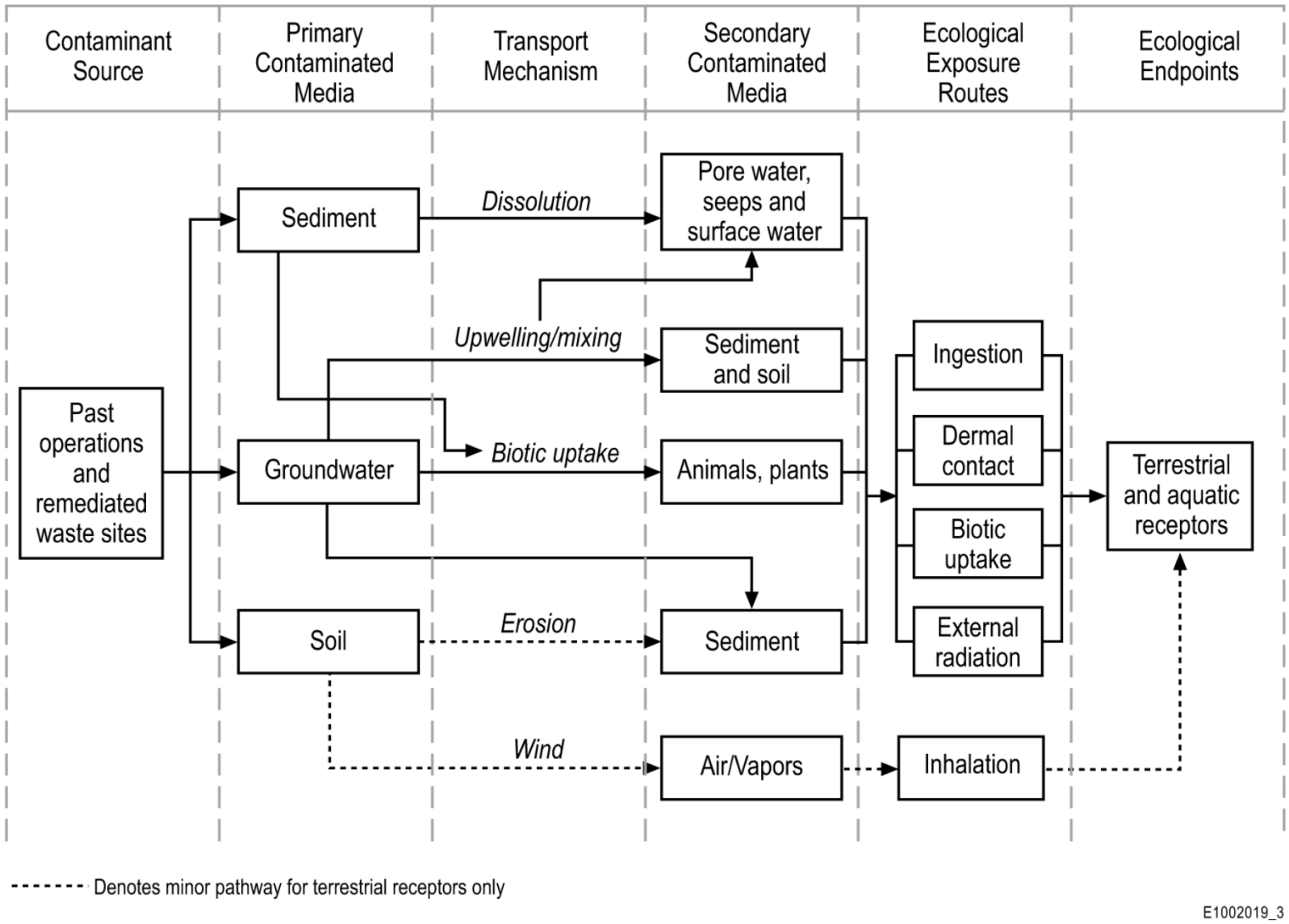

Figure L-6. Ecological Conceptual Exposure Model for the Aquatic Environment (Combined Riparian and Aquatic Nearshore Zones)

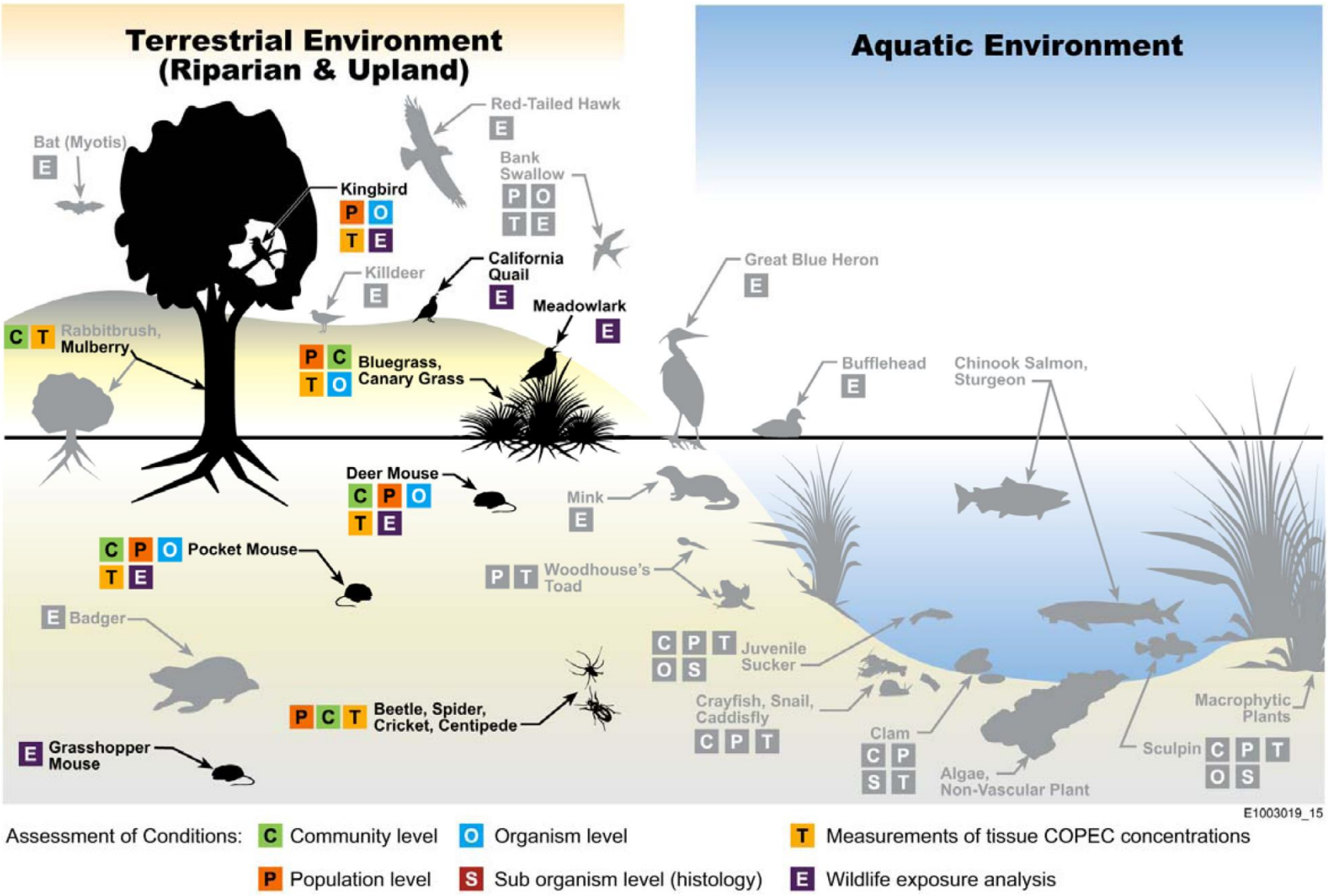

Figure L-7. Summary of Endpoints and Measures Evaluated in the Riparian Environment

L2.4.1 Riparian Zone Exposure Pathways

The boundaries of the riparian zone are defined as extending from the water line of the Columbia River to the upper edge of the riverbank where upland vegetation becomes dominant. The riparian zone along the shoreline of the Columbia River is typically narrow because of the steep riverbank. Potential sources of contamination include seep water (upwelling of groundwater in the riparian zone) and associated sediment. Additionally, contaminants originating from past releases in operational areas could have been transported through several release mechanisms affecting the soil surface within the riparian zone.

Contaminants could have been transported to the riparian zone through surface drainage from the following:

- Precipitation contacting surface soil or waste and running off of the associated waste site
- Landslides or slumping of contaminated soil from upland operational areas into the riparian zone
- Fugitive dust transported through wind or work activities on the waste sites

The primary exposure pathways and release mechanisms in the riparian zone transporting the contaminants from the source, via environmental media, to potential receptors include the following:

- External radiation from contaminated surface soil or sediment
- Generation of dust emanating from surface soil to ambient air from wind
- Volatilization of chemicals emanating from surface soil or sediment to ambient air at the site
- Transport of contaminants in groundwater to release locations in the riparian area (that is, seeps)
- Shoreline seeps/springs containing contaminants.

Sampling locations were selected near historical operating areas and in areas likely to have been affected by contaminated source media such as surface soil, shoreline seeps, or groundwater plumes. The sampling locations were generally selected to optimize the potential for detecting contaminants and effects.

Through transport pathways (for example, upwelling of groundwater in a riverbank seep), secondary media (such as plants) may become contaminated through root uptake from soil or groundwater/seeps. These secondary contaminated media, in turn, may be consumed by receptor species contributing to exposure.

The following ecological exposure routes were identified for the riparian zone:

- Incidental or intentional ingestion of contaminated soil, sediment, water, or biota
- Dermal contact with contaminated soil, sediment, water, or biota
- Exposure of terrestrial and aquatic vertebrates, invertebrates, and plants to external radiation emitted by contaminated soil or foodstuffs
- Uptake or absorption of soil-, sediment-, or water-bound contaminants
- Inhalation of contaminated dust or volatilized contaminants

The riparian ecological exposure routes that were evaluated in the ecological risk assessment include ingestion of contaminated soil, seep water, and biota. Exposure from external radiation was considered by comparing soil radioactivity to radionuclide-specific biota concentration guidelines. While there is a potentially complete exposure pathway via inhalation of fugitive dust and dermal contact with chemicals, these are generally considered minor exposure routes for ecological receptors (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55]).

L2.4.2 Nearshore Aquatic Zone Exposure Pathway

The nearshore aquatic zone is defined as the area that is permanently inundated by river water, extending from the seasonal low-water mark (that is, a "green line" where the periphyton [sessile algae] remains green year round) into the river to a water depth of about 2 m (6 ft). A nearshore study boundary depth of 2 m (6 ft) was selected to optimize the ability to measure potential influence of emergent groundwater and other potential Hanford Site contaminant sources within the Columbia River. Potential sources of contamination within the nearshore aquatic zone include contamination along the Columbia River shoreline at riverbank seeps/springs and other submerged locations where upwelling groundwater mixes with the river water.

The primary release mechanisms transporting the contaminants from the source, via environmental media, to potential receptors include the following:

- Transport of contaminants in groundwater to mixing areas in the nearshore area
- Seeps containing contaminants that flow into the river
- External irradiation from surface sediment containing contaminants (receptor irradiation from sediment replaces release and transport)

Sampling locations were selected near historical operating areas and in areas likely to have been affected by contaminated source media such as surface soil, shoreline seeps, or groundwater plumes. The sampling locations were generally selected to optimize the potential for detecting contaminants and effects.

Secondary media such as surface or pore water, sediment, or biota may become contaminated through transport pathways such as biotic uptake or upwelling of groundwater. These secondary contaminated media, in turn, may be contacted or consumed by receptor species, contributing to exposure.

The following ecological exposure routes were identified for the nearshore zone:

- Incidental or intentional ingestion of contaminated sediment, pore water, surface water, or biota
- Dermal contact with contaminated sediment, biota, pore water, or surface water
- Exposure of aquatic vertebrates, invertebrates, and plants to external radiation emitted by contaminated sediment or biota
- Uptake or absorption of sediment- or water-bound contaminants

The nearshore ecological exposure routes that were quantified in the ecological risk assessment include ingestion of contaminated sediment, surface water, and biota. Exposure from external radiation was considered by comparing contaminated sediment and water to radionuclide-specific biota concentration guidelines. While there is a potentially complete exposure pathway via dermal contact with chemicals, this is generally considered a minor exposure route for ecological receptors (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55]).

L2.4.3 100-D/H River Effluent Pipeline Investigations

During operations, water used in fuel production to cool the reactors was discharged to the Columbia River via effluent pipelines. The release of this cooling water ended when the associated reactors and facilities were shut down. Today, the three inactive 100-D/H effluent pipelines remain in their original locations in the Columbia River channel. Past characterization efforts obtained samples of the river effluent pipelines from the 100-BC, 100-D, and 100-F Areas. Characterization data collected

during the river pipeline evaluations were used to evaluate potential risks from contaminants within the pipelines. The RCBRA (DOE/RL-2007-21) provided a summary of the previous characterization efforts and risk assessment for these pipelines in Section 8.2.2 of this report.

In 1984, *River Discharge Lines Characterization Report* (UNI-3262) discussed samples of scale (flakes of mostly rust) from the interior surfaces and enclosed sediment of the effluent pipelines from the 105-C, 105-DR, and 105-F Reactors. The pipelines were also visually inspected underwater by a diver, and their positions and physical conditions were assessed. Samples of scale and sediment were analyzed for radionuclides. The major radionuclides detected included cobalt-60, cesium-137, europium-152, europium-154, and europium-155. Radionuclide concentrations were greater in the scale than in the sediment. Direct beta-gamma radiation measurements were also obtained for interior and exterior pipe surfaces. The dose rates measured for direct contact with the interior of the pipe surfaces were less than 1 mrem/hr, and readings on the exterior were below the instrument's detection capability. Because the half lives of all these radionuclides is less than 30 years, the activity levels have declined by a factor of two to five and are no longer expected to be ecological risk drivers.

In 1994, a comprehensive geophysical survey (*Columbia River Effluent Pipeline Survey* [WHC-SD-EN-TI-278]) located and mapped the reactor effluent pipelines. The study relied mainly on remote sensing geophysical techniques, including navigation and echo sounding, side-scanning radar, sub-bottom profiling, seismic reflection profiling, and ground-penetrating radar. The results indicated that the pipelines have neither broken loose nor moved from their original locations. However, portions of some pipelines are no longer buried.

In 1995, pipe scale and sediment from the interior of the effluent pipelines from the 100-BC and 100-D areas were sampled and physically characterized using a robotic transporter (*100 Area River Effluent Pipelines Characterization Report* [BHI-00538]). Analytical data from these two pipelines were intended to complement the 1984 radionuclide data (*River Discharge Lines Characterization Report* [UNI-3262]) and were expected to represent "worst case" conditions with respect to radiological contamination. This assumption was based on the long years of pipeline service and the volume of effluent known to have been discharged from the 105-B and 105-D/DR Reactors.

Evaluations of human health and ecological risk have been performed for the river effluent pipelines, as they are today, located on or beneath the river channel bottom, and for a scenario in which a pipeline section breaks away from the main pipeline and is washed onto the shore of the river. Both the 1996 risk assessment effort (*100 Area River Effluent Pipelines Characterization Report* [BHI-00538]) and the 1998 risk assessment effort (*100 Area River Effluent Pipelines Risk Assessment* [BHI-01141]) relied on data collected from the 1984 and 1995 characterization work. The evaluation of human health and ecological risk performed in 1998 (*100 Area River Effluent Pipelines Risk Assessment* [BHI-01141]) concluded that the concentrations of chromium and mercury in the scale and sediment within the pipelines pose minimal ecological risk because they have been in contact with river water without dissolving since the reactors were shut down. The 1998 risk evaluation results indicated pipelines present no unacceptable risks and, therefore, no remediation requirements under CERCLA. This is supported by the following:

- Minimal deteriorated condition of the pipelines
- Continued decrease of radionuclide concentrations due to decay
- Inaccessible location
- Unavailability of significant contaminants to affect human health and the environment

Accordingly, no further action is considered for below river effluent pipeline waste sites 100-D-60 (pipes), 100-H-34 (pipes), and 100-D-67 (D island) in this RI/FS.

L3 Data Evaluation

Analytical data collected from the riparian and nearshore zones were evaluated to focus on the contaminants of potential ecological concern that could be related to Hanford Site operations. This data evaluation encompassed groundwater (characterized by near-river wells and aquifer tubes), seeps/springs, surface water, sediments, and riparian soil data, obtained from a range of Hanford Site sources. These sources included groundwater-monitoring activities documented in the Annual Groundwater Monitoring Reports, sampling of sediments, seeps, and surface water conducted as part of the Surface Environmental Surveillance Program (SESP), and sampling of sediments, pore water, surface water, and riparian soils conducted as part of the RCBRA (DOE/RL-2007-21).

These analytical results were compared with ecological benchmarks and criteria to confirm whether or not these should be identified as COPECs. Analytical data quality, in particular filtered versus unfiltered analyses of water samples, was taken into consideration in making the comparisons with benchmarks and criteria. The spatial relationships of contaminants concentrations in surface water, pore water, and groundwater were evaluated to address considerations of whether or not detected contaminants were related to Hanford Site operations (that is, originated from upland groundwater sources) or reflected ambient background conditions.

L3.1 Data Sources and Data Processing

The dataset used in this evaluation consisted of sampling and analysis data collected from 10 nearshore monitoring wells, 78 aquifer tubes, 9 seep/spring location, 6 pore water locations, and 8 surface water locations within the boundaries of the 100-D Area of the 100-HR-3 OU, and 18 near shore monitoring wells, 63 aquifer tubes, 12 seep/spring locations, 2 pore water locations, and 4 surface water locations within the boundaries of the 100-H Area of the 100-HR-3 OU. A list of the nearshore wells and aquifer tubes used in this evaluation are provided in Tables L-1 and L-2 for the 100-D and 100-H Areas (Tables are located at the end of this appendix). Seep/spring, pore water, and surface water sampling locations are based on sampling locations identified in the RCBRA (DOE/RL-2007-21). Figure L-8 (100-D Area) and Figure L-9 shows the sampling locations for each type of water media, riparian soil, and sediment.

Most riparian soil, sediment, seep/spring, pore water, and surface water sampling locations are based on sampling locations identified in the RCBRA (DOE/RL-2007-21). Figure L-8 and Figure L-9 show the sampling locations for each type of water media, riparian soil, and sediment location in the 100-D and 100-H Areas of the 100-HR-3 Groundwater OU. Sediment samples were collected within the horn area and are shown on Figure L-10.

The dataset used in this evaluation was obtained from the Hanford Environmental Information System (HEIS) and included the following types of information:

- Analytical results from both unfiltered and filtered samples
- Data qualification and data validation flags, including rejected results
- Results for a given analyte reported by more than one analytical method
- Parent, field duplicate, and field split sample results

The analytical data were processed to eliminate unusable results and thus identify one set of results per sampling location and date of sample collection. The data processing steps are described in the following subsections.

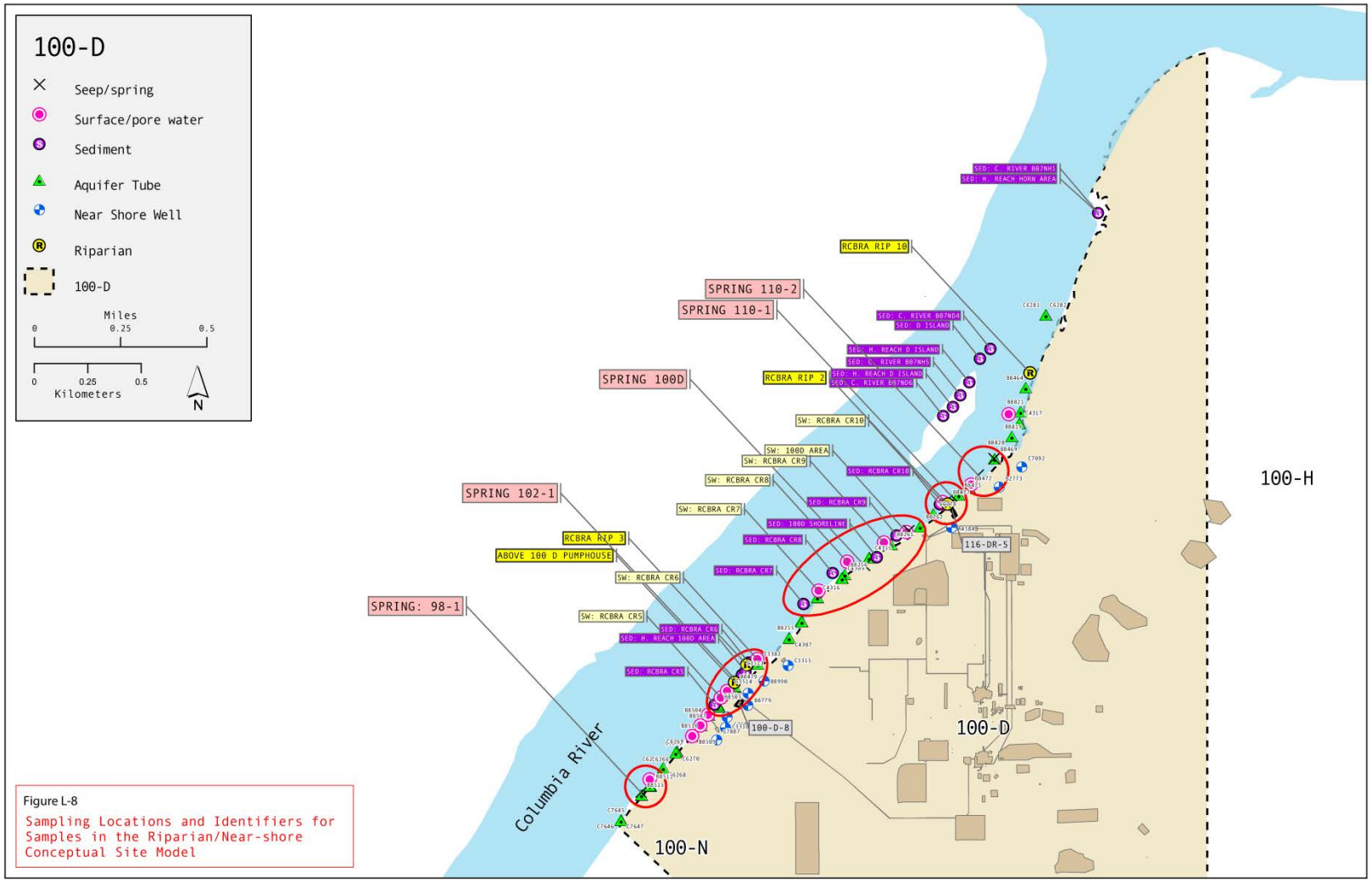

Figure L-8
Sampling Locations and Identifiers for Samples in the Riparian/Near-shore Conceptual Site Model

Figure L-8. Sampling Locations near 100-D

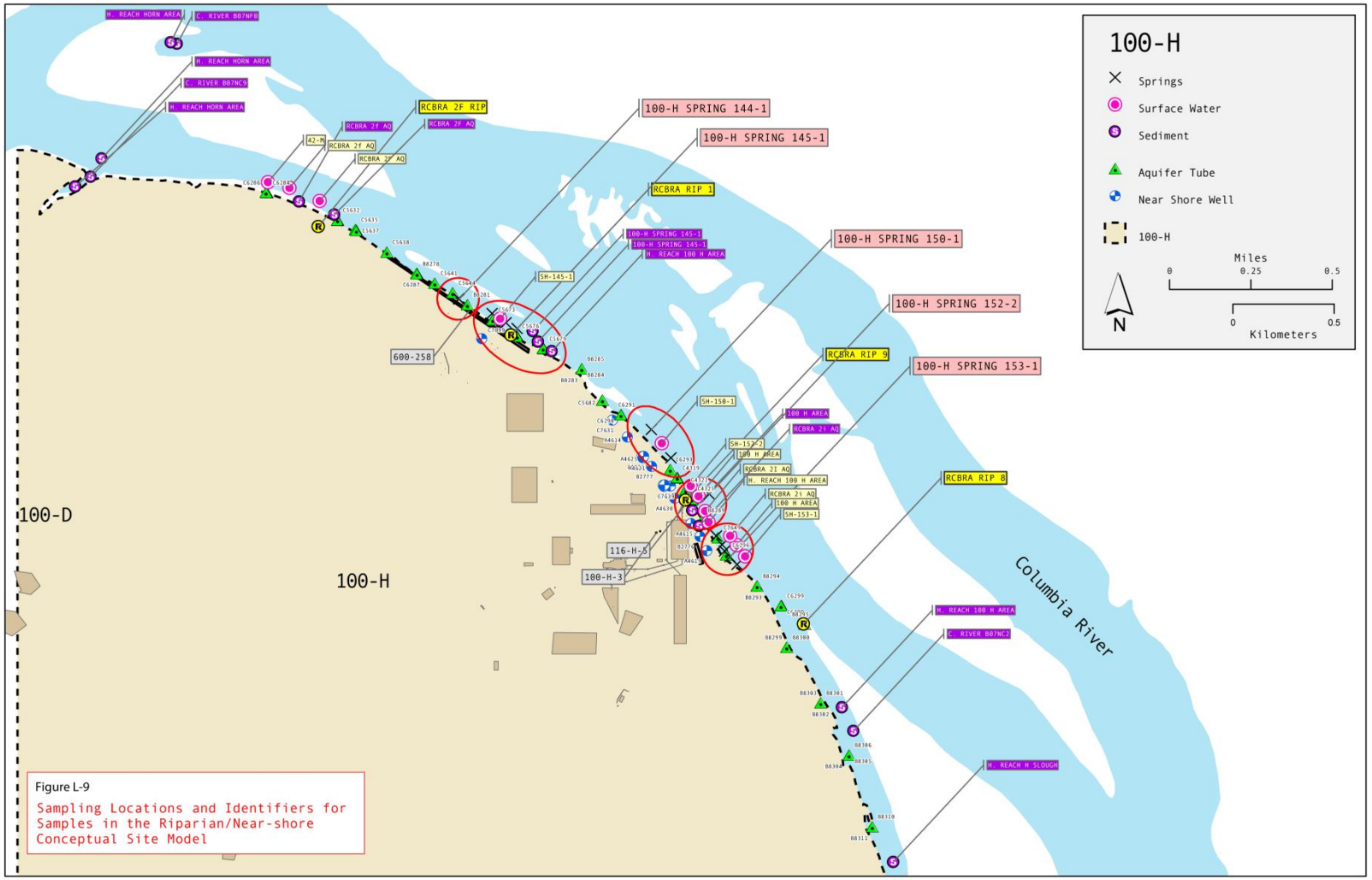

Figure L-9. Sampling Locations near 100-H

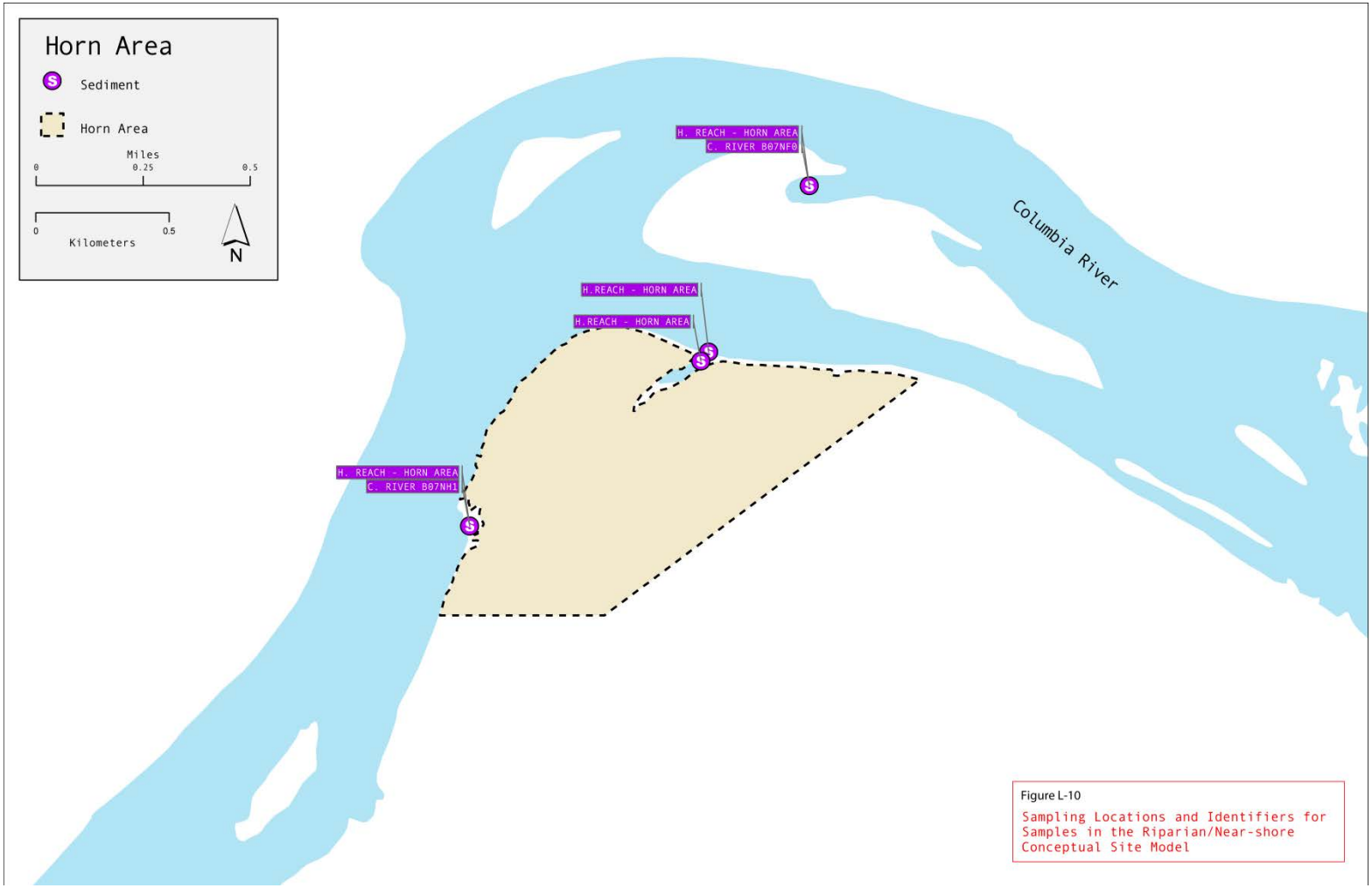

Figure L-10. Sampling Locations in the Horn Area

L3.1.1 Laboratory and Data Validation Flags

Analytical data are received from the laboratory with data qualification flags. Validation qualifiers are assigned during the data validation process. The following rules determine how flagged and/or qualified sample results are used in identifying contaminants of interest.

- Sample results flagged with a "U" qualifier, or combinations of qualifiers that include a "U," such as a "UJ," are considered nondetected results.
- Sample results without a "U" qualifier are considered detected concentrations, including results with no qualifier or with a "J" qualifier.
- Sample results that are rejected and flagged with an "R" qualifier are not used in identifying COPCs.

L3.1.2 Analytes Reported by Numerous Analytical Methods

Often, analytes are reported by more than one analytical method, resulting in multiple results for the same analyte from the same location and sample date. When analytes are reported by more than one analytical method for a sample, the set of data that best represents the actual concentration is retained. For example, the gamma spectroscopy method provides concentration results for the uranium isotopes; however, uranium concentrations reported by a uranium-isotope-specific method are preferred.

L3.1.3 Field Duplicate and Field Split Results

Field quality control samples (field duplicates and field splits) are collected in the field and analyzed by the laboratory as unique samples. The parent sample and quality control samples are collected from the same location (that is, monitoring well) on the same date, resulting in more than one sample per location/date. The following criteria are used to reduce multiple sample results for an individual location/date to a single result:

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

L3.2 Identification of Ecological Screening Levels

Ecological screening levels (ESL) were used for comparison with analytical results in water, soil, and sediment to identify COPECs, and were derived from available sources of chemical-specific relevant and appropriate requirements (ARAR), readily available soil screening levels (SSLs), or site-specific preliminary remediation goals (PRG) for plants and invertebrates or wildlife. A summary of ESLs for water is listed in Table L-3. A summary of the plant/invert and wildlife ESLs is listed in Table L-4. A summary of the upper threshold and lower threshold sediment ESLs is provided in Table L-5.

L3.2.1 Ecological Screening Levels for Water

The sources of surface water ESLs are listed below:

- Blindow, 1988, "Phosphorous Toxicity in *Chara*."
- BCMOE, 1995, *Ambient Water Quality Criteria for Fluoride*.
- CRWQCB, 2007, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*.

- DOE/EH-0676, *RESRAD-BIOTA: A Tool for Implementing a Graded Approach to Biota Dose Evaluation. User's Guide, Version 1*.
- DOE-STD-1153-2002, *A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota*.
- EPA 440-5-88-093, *Ambient Aquatic Life Water Quality Criteria for Antimony (III)*
- EPA, 2009, *National Recommended Water Quality Criteria*.
- ES/ER/TM-96/R2, *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision*.
- McGurk et al., 2006, "Acute and Chronic Toxicity of Nitrate to Early Life Stages of Lake Trout (*Salvelinus namaycush*) and Lake Whitefish (*Coregonus clupeaformis*)."
- MDEQ, 2011, "Water Quality Values."
- Neumann et al., 2001, "Detrimental Effects of Nitrite on the Development of Benthic Chironomus Larvae, in Relation to Their Settlement in Muddy Sediments."
- Sheppard et al., 2005, "Derivation of Ecotoxicity Thresholds for Uranium."
- WAC 173-201A, "Water Quality Standards for Surface Waters of the State of Washington."
- WHO, 2001, *Vanadium Pentoxide and Other Inorganic Vanadium Compounds*.

The ESL was selected from lowest of the available values for protection of aquatic receptors, as listed previously.

L3.2.2 Ecological Screening Levels for Soil

The sources of the plant/invert ESLs and wildlife ESLs are described below. In general, values for metals are PRGs, while those for organics are SSLs. The specific values and the sources and basis for each value are provided in Table L-3.

Plant/invertebrate ESLs. PRGs for plant and invertebrates are documented in *Tier 2 Terrestrial Plant and Invertebrate Preliminary Remediation Goals (PRGs) for Nonradionuclides for Use at the Hanford Site* (ECF-HANFORD-11-0158). When appropriate, these represent thresholds of toxicity to plants and invertebrates at Hanford and are reflective of site-specific conditions. SSLs were employed when a PRG was not available, as documented in *Tier 1 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site* (CHPRC-00784). The most appropriate value for each COPEC was selected from the following:

- Site-specific no observed effects concentration (NOEC) from samples collected in 2011, as documented in *Tier 2 Terrestrial Plant and Invertebrate Preliminary Remediation Goals (PRGs) for Nonradionuclides for Use at the Hanford Site* (ECF-HANFORD-11-0158).
- Site-specific NOECs from samples collected in 2006 and 2007, as documented in the RCBRA (DOE/RL-2007-21).
- Site-specific PRGs for lead and arsenic presented in *Ecological Soil Screening Levels for Arsenic and Lead in the Tacoma Smelter Plume Footprint and Hanford Site Old Orchards* (Ecology Publication 11-03-006).

- Hanford Site background:
  - *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes* (DOE/RL-92-24)
  - *Hanford Site Background: Part 2, Soil Background for Radionuclides* (DOE/RL-96-12)
  - *Hanford Site Background: Evaluation of Existing Soil Radionuclide Data* (DOE/RL-95-55)
  - *A Review of Metal Concentrations Measured in Surface Soil Samples Collected on and Around the Hanford Site* (PNNL-18577)
  - *Soil Background for Interim Use at the Hanford Site* (ECF-HANFORD-11-0038)
- EPA's Ecological Soil Screening Levels (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55])
- State of Washington, Department of Ecology's (Ecology) "Model Toxics Control Act—Cleanup," "Tables" (WAC 173-340-900), Table 749-3, "Ecological Indicator Soil Concentrations (mg/kg) for Protection of Terrestrial Plants and Animals."
- Oak Ridge National Laboratory (ORNL) screening benchmarks:
  - *Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision* (ES/ER/TM-85/R3).
  - *Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision* (ES/ER/TM-126/R2).

Wildlife ESLs. PRGs for wildlife represent sets of site-specific values derived to be protective of wildlife that are found or that represent feeding guilds at the Hanford site. PRGs rely on desktop food chain models that are effectively equivalent to those published by U.S. Environmental Protection Agency (EPA) (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55]) and Ecology ("Model Toxics Control Act—Cleanup," "Tables," Table 749-3, "Ecological Indicator Soil Concentrations (mg/kg) for Protection of Terrestrial Plants and Animals," [WAC 173-340-900, Table 749-3]). PRGs typically use a combination of literature-based information for the species specifically found at Hanford, while incorporating site-specific tissue data into the food chain models. Wildlife PRGS are documented in *Tier 2 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site* (CHPRC-01311) and SSLs are documented in *Tier 1 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site* (CHPRC-00784).

L3.2.3 Ecological Screening Levels for Sediment

ESLs for sediment are the same as those used in the RCBRA (DOE/RL-2007-21) and in *Columbia River Component Risk Assessment Volume 1: Screening Level Ecological Risk Assessment* (DOE/RL-2010-117), called CRC, and come from a variety of published sources. When available, preference was given to values published in the *Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho* (Ecology Publication 11-09-054). Other sources were used when a value was not available in this report, with preference toward specificity toward datasets from the Pacific Northwest.

L3.3 Identification of Contaminants of Interest - Water

After extracting and processing the 100-HR-3 OU groundwater analytical dataset from HEIS, a multistep screening process was used to identify initial contaminants of interest (COI). The steps were:

- Apply exclusion criteria
- Identify nondetected analytes
- Identify analytes with maximum detected concentrations less than their respective ESLs
- Identify analytes with maximum detected concentrations greater than their respective ESLs

L3.3.1 Apply Exclusion Criteria

The first step in the COI identification process is to apply certain exclusion criteria. Analytes that met the exclusion criteria were eliminated as COI. The only exclusion criterion used was the absence of toxicity information for an analyte—if there were no ESLs available as described in Section L3.2.1, that analyte was not carried into the next step of the data evaluation process. Analytes that did not meet any of the exclusion criteria were carried forward into the next step.

The analytes in nearshore groundwater wells, aquifer tubes, pore water samples, seep/spring samples, and surface water samples that do not have ESLs are summarized in Tables L-6 through L-10 for the 100-D Area and in Tables L-11 through L-15 for the 100-H Area. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum method detection limits (MDL) are also provided in Tables L-6 through L-15.

L3.3.2 Identify Nondetected Analytes

The next step in the groundwater contaminant of interest identification process was to identify nondetected analytes. Chemicals and radionuclides that have been analyzed for, but not detected in any sample (collected from appropriate locations, with adequate detection limits), are eliminated as contaminants of interest. All analytes detected at least once were carried forward to the next step.

Analytes that were not detected in near-river groundwater wells, aquifer tubes, pore water, seep/spring, or surface water samples are summarized in Tables L-16 through L-20 for the 100-D area and Tables L-21 through L-25 for the 100-H area.

L3.3.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs

This step identifies analytes with maximum concentrations less than ESLs. In this screening step, the maximum concentration of each analyte detected in groundwater was compared to its ESL, to identify analytes not likely to contribute significantly to overall risk. If the maximum detected concentration of an analyte was less than its ESL, the analyte was eliminated as a contaminant of interest.

A list of analytes with maximum concentrations less than their ESL for each water media is presented in Tables L-26 through L-30 for the 100-D area and in Tables L-31 through L-35 for the 100-H area. With regard to groundwater, the focus of this analysis has been on analytes that are not identified as the contaminants that have already been identified for remedial alternatives evaluation in the FS, including chromium (and Cr(VI)), nitrate, and strontium-90. Further discussion of these contaminants is provided in Section 4.3.2 (Chapter 4) of the remedial investigation/feasibility study (RI/FS) report.

L3.3.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs

This step identifies analytes with maximum concentrations greater than their respective ESLs. Such analytes are likely to contribute to overall risk. If the maximum detected concentration of an analyte is greater than its ESL, the analyte is identified as a COPC.

L3.3.4.1 100-D Source Area

A list of analytes with maximum detected concentrations greater than their ESL for each water media is presented in Tables L-36 through L-40 for the 100-D Area. Table L-41 summarizes the results for all water media and all contaminants of interest described below.

Aluminum

Groundwater. Aluminum was detected in four of nine unfiltered samples (44 percent frequency) and was not detected in filtered groundwater samples (nine samples). All aluminum concentrations and MDLs are less than the ESL of 87 µg/L.

Aquifer Tubes. Aluminum was detected in one unfiltered sample (100 percent frequency). The single aluminum concentration in unfiltered samples was reported at location Redox-1-6.0 (120 µg/L) with a concentration greater than the ESL of 87 µg/L.

Aluminum was detected in one of two filtered aquifer tube samples (50 percent frequency). The single aluminum concentration in filtered samples was reported at location DD-41-2 (19 µg/L) with a concentration less than the ESL of 87 µg/L.

Pore Water. Aluminum was detected in two of seven unfiltered pore water samples (29 percent frequency) at concentrations 39 and 41 µg/L. All aluminum concentrations and MDLs are less than the ESL of 87 µg/L.

Seeps/Springs. Aluminum was detected in all 11 unfiltered seep/spring samples (100 percent frequency) and was not detected in filtered seep/spring samples (four samples). Aluminum concentrations in unfiltered samples range from 29 to 21,100 µg/L. Of the 11 detected results, eight samples were reported with concentrations greater than the ESL of 87 µg/L. All MDLs for filtered seep spring samples are less than the ESL.

Surface Water. Aluminum was detected in two of six unfiltered surface water samples (33 percent frequency). Aluminum concentrations in unfiltered samples are less than the ESL of 87 µg/L.

Antimony

Groundwater. Antimony was detected in four of 36 unfiltered groundwater samples (11 percent frequency). Antimony concentrations in unfiltered samples ranged from 42 to 52 µg/L. All four detected results were reported with concentrations greater than the ESL of 30 µg/L. Although the maximum detected concentration is greater than the ESL, antimony concentrations are less than the Hanford Site background value of 55 µg/L.

Antimony was detected in three of 37 filtered groundwater samples (8.1 percent frequency). Antimony concentration in filtered samples ranged from 4.2 to 55 µg/L. Of the three detected results, two samples were reported with concentrations greater than the ESL of 55 µg/L. Although the maximum detected concentration is greater than the ESL, antimony concentrations are less than the Hanford Site background value of 55 µg/L.

Aquifer Tubes. Antimony was detected in seven of 64 unfiltered aquifer tube samples (11 percent frequency). Antimony concentrations in unfiltered samples ranged from 34 to 66 µg/L. All seven detected results were reported with concentrations greater than the ESL of 30 µg/L. Antimony was detected at location DD-44-4 (66 µg/L) with a concentration greater than the Hanford Site background value of 55 µg/L.

Antimony was detected in three of 62 filtered aquifer tube samples (4.8 percent frequency). Antimony concentration in filtered samples ranged from 43 to 53 µg/L. All three detected results were reported with

concentrations greater than the ESL of 55 µg/L. Although the maximum detected concentration is greater than the ESL, antimony concentrations are less than the Hanford Site background value of 55 µg/L.

Pore Water. Antimony was not detected in pore water samples (7 samples). All MDLs are less than the ESL of 30 µg/L.

Seeps/Springs. Antimony was detected in eight of 15 unfiltered seep/spring samples (53 percent frequency) with concentrations ranging from 0.15 to 0.23 µg/L. Antimony was detected in four of eight filtered seep/spring samples (50 percent frequency) with concentrations ranging from 0.17 to 0.26 µg/L. All antimony concentration in unfiltered and filtered samples and MDLs are less than the ESL of 30 µg/L.

Surface Water. Antimony was detected in one of six unfiltered surface water samples (17 percent frequency) at a concentration of 5.7 µg/L. Antimony concentration and MDLs are less than the ESL of 30 µg/L.

Cadmium

Groundwater. Cadmium was detected in one of 37 filtered groundwater samples (2.7 percent frequency) and was not detected in unfiltered groundwater samples (36 samples). The single cadmium concentration in filtered samples was reported at monitoring Well 199-D4-84 (0.31 µg/L) with a concentration greater than the ESL of 0.22 µg/L. Although the maximum detected concentration is greater than the ESL, the single detected result is less than the Hanford Site background value of 0.92 µg/L.

Aquifer Tubes. Cadmium was detected in one of 64 unfiltered aquifer tube samples (1.6 percent frequency) and was not detected in filtered aquifer tube samples (62 samples). The single cadmium concentration in unfiltered samples was reported at location C7646 (0.43 µg/L) at a concentration greater than the ESL of 0.22 µg/L. Although the maximum detected concentration is greater than the ESL, the single detected result is less than the Hanford Site background value of 0.92 µg/L.

Pore Water. Cadmium was not detected in the unfiltered pore water sample (7 samples). All MDLs are greater than the ESL of 0.22 µg/L.

Seeps/Springs. Cadmium was detected in nine of 15 unfiltered seep/spring samples (60 percent frequency). Cadmium concentrations in unfiltered samples range from 0.017 to 0.68 µg/L. Of the nine detected results, three samples were reported with concentrations greater than the ESL of 0.22 µg/L. Although the maximum detected concentration is greater than the ESL, all cadmium results are less than the Hanford Site background value of 0.92 µg/L. All MDLs are greater than the ESL.

Cadmium was detected in four of eight filtered seep/spring samples (50 percent frequency), with concentrations ranging from 0.014 to 0.062 µg/L. Cadmium concentrations in filtered samples are less than the ESL of 0.22 µg/L. All MDLs are greater than the ESL.

Surface Water. Cadmium was not detected in unfiltered surface water samples (6 samples). All MDLs are greater than the ESL of 0.22 µg/L.

Cesium-134

Groundwater. Cesium-134 was not detected in unfiltered groundwater samples (11 samples). Most MDLs are less than the ESL of 21 pCi/L.

Aquifer Tube. Cesium-134 was detected in one of four aquifer tube samples (25 percent frequency). The single unfiltered cesium-134 detected was reported at location C7648 (22 µg/L) at a concentration greater than the ESL of 21 pCi/L.

Pore Water. Cesium-134 was not detected in unfiltered pore water samples (7 samples). Most MDLs are less than the ESL of 21 pCi/L.

Seep/Spring. Cesium-134 was not detected in unfiltered seep/spring samples (19 samples). All MDLs are less than the ESL of 21 pCi/L.

Surface Water. Cesium-134 was not detected in unfiltered surface water samples (six samples). All MDLs are less than the ESL of 21 pCi/L.

Chromium

Groundwater. Chromium was detected in 35 of 36 unfiltered groundwater samples (97 percent frequency). Chromium concentrations in unfiltered samples ranged from 19 to 5,930 µg/L. Of the 35 detected results, 19 samples were reported with concentrations greater than the ESL of 64 µg/L. All MDLs are less than the ESL.

Chromium was detected in all 37 filtered groundwater samples (100 percent frequency). Chromium concentrations in filtered samples ranged from 11 to 5,930 µg/L. Of the 37 detected results, 20 samples were reported with concentrations greater than the ESL of 64 µg/L.

Aquifer Tubes. Chromium was detected in 41 of 64 unfiltered aquifer tube samples (64 percent frequency). Chromium concentrations in unfiltered samples ranged from 5.5 to 362 µg/L. Of the detected 41 results, 18 samples were reported with results greater than the ESL of 64 µg/L.

Chromium was detected in 35 of 62 filtered aquifer tube samples (56 percent frequency). Chromium concentrations in unfiltered samples ranged from 15 to 364 µg/L. Of the 35 detected results, 17 samples were reported with results greater than the ESL of 64 µg/L.

All MDLs are less than the ESL.

Pore Water. Chromium was detected in three of seven unfiltered pore water samples (43 percent frequency) with concentrations ranging from 3.4 to 17 µg/L. All chromium concentrations and MDLs are less than the ESL of 64 µg/L.

Seeps/Springs. Chromium was detected in all 18 unfiltered groundwater samples (100 percent frequency). Chromium concentrations in unfiltered groundwater samples ranged from 10 to 400 µg/L. Of the 18 detected results, seven samples were reported with concentrations greater than the ESL of 64 µg/L.

Chromium was detected in all eight filtered seep/spring samples (100 percent frequency). Chromium concentrations in filtered samples ranged from 11 to 156 µg/L. Of the eight detected results, one sample was reported with a concentration greater than the ESL of 64 µg/L. Chromium was detected at location SD-110-1 (156 µg/L).

Surface Water. Chromium was not detected in unfiltered surface water samples (6 samples). All MDLs are less than the ESL of 64 µg/L.

Cobalt

Groundwater. Cobalt was detected in 14 of 36 unfiltered groundwater samples (39 percent frequency). Cobalt concentration in unfiltered samples ranged from 2.1 to 30 µg/L. Of the 14 detected results, four samples were reported with concentrations greater than the ESL of 23 µg/L. The four concentrations greater than the ESL were flagged with a “C” qualifier, indicating the analyte was detected in the laboratory method blank.

Cobalt was detected in 14 of 37 filtered groundwater samples (38 percent frequency). Cobalt concentrations in filtered samples ranged from 2.2 to 31 µg/L. Of the 14 detected results, four samples were reported with concentrations greater than the ESL of 23 µg/L. The four concentrations greater than the ESL were flagged with a "C" qualifier, indicating the analyte was detected in the laboratory method blank.

Aquifer Tubes. Cobalt was detected in 17 of 64 unfiltered aquifer tube samples (27 percent frequency). Cobalt concentration in unfiltered samples ranged from 0.82 to 29 µg/L. Of the 17 detected results, one sample was reported with a concentration greater than the ESL of 23 µg/L. Cobalt was detected at location DD-43-3 (29 µg/L).

Cobalt was detected in 18 of 62 filtered aquifer tube samples (29 percent frequency). Cobalt concentrations in filtered samples ranged from 0.30 to 32 µg/L. Of the 18 detected results, one sample was reported with a concentration greater than the ESL of 23 µg/L. Cobalt was detected at location DD-43-3 (32 µg/L).

Pore Water. Cobalt was not detected in unfiltered pore water samples (seven samples). All MDLs are less than the ESL of 23 µg/L.

Seep/Spring. Cobalt was detected in one of seven unfiltered seep/spring samples (14 percent frequency) at a concentration of 9.6 µg/L. Cobalt was not detected in filtered seep/spring samples (4 samples). All cobalt concentrations and MDLs are less than the ESL of 23 µg/L.

Surface Water. Cobalt was not detected in unfiltered surface water samples (6 samples). All MDLs are less than the ESL of 23 µg/L.

Copper

Groundwater. Copper was detected in 12 of 36 unfiltered groundwater samples (33 percent frequency). Copper concentrations in unfiltered groundwater samples ranged from 0.23 to 17 µg/L. Of the 12 detected results, six samples were reported with concentrations greater than the ESL of 10 µg/L. Copper was detected at monitoring Wells 199-D4-38 (17 µg/L), 199-D4-39 (17 µg/L), 199-D4-83 (11 µg/L), and 199-D4-84 (12 µg/L) and flagged with "C" qualifiers, indicating that the analyte was detected in the laboratory blank. Detected concentrations at monitoring Wells 199-D4-98 (11 µg/L) and 199-D4-99 (13 µg/L) were flagged with "B" qualifiers, indicating that the analyte was detected at a value less than the contract required detection limit, but greater than or equal to the MDL.

Copper was detected in eight of 37 filtered groundwater samples (22 percent frequency). Copper concentrations in filtered groundwater samples ranged from 0.22 to 18 µg/L. Of the eight detected results, four samples were reported with concentrations greater than the ESL of 10 µg/L. Copper was detected at Monitoring Wells 199-D4-38 (18 µg/L), 199-D4-39 (16 µg/L), 199-D4-83 (11 µg/L), 199-D4-84 (15 µg/L) and flagged with "C" qualifiers. All MDLs are less than the ESL of 10 µg/L.

Aquifer Tubes. Copper was detected in 24 of 59 unfiltered aquifer tube samples (41 percent frequency). Copper concentrations in unfiltered samples ranged from 4.3 to 124 µg/L. Of the 24 detected results, 17 samples were reported with concentrations greater than the ESL of 10 µg/L.

Copper was detected in 16 of 60 filtered aquifer tube samples (27 percent frequency). Copper concentrations in filtered samples ranged from 4.1 to 62 µg/L. Of the 16 detected results, six samples were reported with concentrations greater than the ESL. Copper was detected above the ESL at Redox-4-6.0 (between 23 and 62 µg/L), Redox-1-6.0 (12 and 14 µg/L), and AT-D-1-D (12 µg/L).

All MDLs are less than the ESL of 10 µg/L.

Pore Water. Copper was not detected in the single unfiltered pore water sample. The MDL was less than the ESL of 10 µg/L.

Seeps/Springs. Copper was detected in 10 of 16 unfiltered seep/spring samples (63 percent frequency). Copper concentrations in unfiltered samples ranged from 0.47 to 37 µg/L. Of the 10 detected results, one sample was reported with a concentration greater than the ESL of 9.0 µg/L. Copper was detected at location SD-110-1 (37 µg/L).

Copper was detected in six of eight filtered seep/spring samples (75 percent frequency) with concentrations ranging from 0.44 to 4.0 µg/L. Copper concentrations in filtered samples are less than the ESL of 10 µg/L.

All MDLs f are less than the ESL of 10 µg/L.

Surface Water. Copper was not detected in unfiltered surface water samples (6 samples). All MDLs are less than the ESL of 10 µg/L.

Fluoride

Groundwater. Fluoride was detected in 32 of 76 unfiltered groundwater samples (42 percent frequency) with concentrations ranging from 33 to 210 µg/L. Fluoride concentrations in unfiltered samples are less than the ESL of 300 µg/L.

Aquifer Tubes. Fluoride was detected in 107 of 207 unfiltered aquifer tube samples (52 percent frequency) with concentrations ranging from 14 to 252 µg/L. Fluoride concentrations in unfiltered samples are less than the ESL of 300 µg/L.

Pore Water. Fluoride was not detected in unfiltered pore water samples (7 samples). All MDLs are less than the ESL of 300 µg/L.

Seeps/Springs. Fluoride was detected in 16 of 18 unfiltered seep/spring samples (89 percent frequency). Fluoride concentrations in unfiltered samples ranged from 38 to 500 µg/L. Of the 16 detected results, four samples were reported with concentrations greater than the ESL of 300 µg/L. Although the maximum detected concentration is greater than the ESL of 1,047 µg/L, fluoride is reported at a concentration less than the Hanford Site background level of 1,047 µg/L.

Surface Water. Fluoride was not detected in unfiltered surface water samples (6 samples). All MDLs are less than the ESL of 300 µg/L.

Cr(VI)

Groundwater. Cr(VI) was detected in 129 of 131 unfiltered groundwater samples (98 percent frequency). Cr(VI) concentrations in unfiltered samples ranged from 3.2 to 2,950 µg/L. Of the 129 detected results, 115 samples reported results greater than the ESL of 10 µg/L.

Cr(VI) was detected in 99 of 103 filtered groundwater samples (96 percent frequency). Cr(VI) concentrations in filtered samples ranged from 3.0 to 2,960 µg/L. Of the 99 detected results, 84 samples were reported with concentrations greater than the ESL of 10 µg/L.

All MDLs are less than the ESL.

Aquifer Tubes. Cr(VI) was detected in 277 of 347 unfiltered aquifer tube samples (80 percent frequency). Cr(VI) concentrations in unfiltered samples ranged from 2.0 to 422 µg/L. Of the 277 detected results, 187 samples were reported with concentrations greater than the ESL of 10 µg/L.

Cr(VI) was detected in 242 of 308 filtered aquifer tube samples (79 percent frequency). Cr(VI) concentrations in filtered samples ranged from 2.0 to 380 µg/L. Of the 242 detected results, 161 samples were reported with concentrations greater than the ESL of 10 µg/L.

All MDLs were less than the ESL.

Pore Water. Cr(VI) was detected in five of eight unfiltered pore water samples (63 percent frequency). Cr(VI) concentrations in unfiltered samples ranged from 3.9 to 21 µg/L. Of the five detected results, two samples were reported with concentrations greater than the ESL of 10 µg/L. Cr(VI) was detected at location RCBRA CR6 with concentrations ranging between 6.6 and 21 µg/L.

Seeps/Springs. Cr(VI) was detected in one unfiltered seep/spring sample (100 percent frequency). The single Cr(VI) detection was reported at location 100-D Spring with a concentration (70 µg/L) greater than the ESL of 10 µg/L.

Surface Water. Cr(VI) was detected in four of six unfiltered surface water samples (67 percent frequency) with concentrations ranging from 3.4 to 6.2 µg/L. All Cr(VI) concentrations and MDLs in unfiltered samples are less than the ESL of 10 µg/L.

Iron

Groundwater. Iron was detected in 31 of 36 unfiltered groundwater samples (86 percent frequency). Iron concentrations in unfiltered groundwater ranged from 29 to 1,560 µg/L. Of the 31 detected results, two samples were reported with concentrations greater than the ESL of 1,000 µg/L. Iron was detected at Monitoring Wells 199-D4-38 (1,560 µg/L) and 199-D4-84 (1,410 µg/L). Other sampling rounds at these locations reported concentrations less than the ESL.

Iron was detected in 18 of 37 filtered groundwater samples (49 percent frequency) with concentrations ranging from11 to 339 µg/L. Iron concentrations in filtered samples are less than the ESL of 1,000 µg/L

All MDLs are less than the ESL of 1,000 µg/L.

Aquifer Tubes. Iron was detected in 46 of 64 unfiltered aquifer tube samples (72 percent frequency). Iron concentrations in unfiltered samples ranged from 21 to 1,190 µg/L. Of the 46 detected results, one sample was reported with a concentration greater than the ESL of 1,000 µg/L. Iron was detected above the ESL at location Redox-1-6.0 at a concentration of 1,190 µg/L. Other sampling rounds reported iron concentrations less than the ESL.

Iron was detected in 21 of 62 filtered groundwater samples (34 percent frequency) with concentrations ranging from 9.7 to 143 µg/L. All iron concentrations in filtered samples are less than the ESL of 1,000 µg/L.

All MDLs are less than the ESL of 1,000 µg/L.

Pore Water. Iron was detected in one of seven unfiltered pore water samples (14 percent frequency) at a concentration of 68 µg/L. The single iron concentration and MDLs are less than the ESL of 1,000 µg/L.

Seeps/Springs. Iron was detected in all 11 unfiltered seep/spring samples (100 percent frequency). Iron concentrations in unfiltered samples ranged from 46 to 20,400 µg/L. Of the 11 detected results, one sample was reported with a concentration greater than the ESL of 1,000 µg/L. Iron was detected above the ESL at location SD 110 1 at a concentration of 20,400 µg/L. Other sampling rounds reported iron concentrations less than the ESL.

Iron was detected in two of four filtered seep/spring samples (50 percent frequency) with concentrations ranging from 16 to 18 μg/L. All iron concentrations and MDLs in filtered samples are less than the ESL of 1,000 μg/L.

Surface Water. Iron was detected in one of six surface water samples (17 percent frequency) at a concentration of 37 μg/L. The single iron concentration and MDLs are less than the ESL of 1,000 μg/L.

Lead

Groundwater. Lead was detected in two of nine unfiltered groundwater samples (22 percent frequency) with concentrations ranging from 0.37 to 0.39 μg/L. Lead was detected in one of nine filtered groundwater samples (11 percent frequency) at a concentration of 0.34 μg/L. All lead concentrations and MDLs are less than the ESL of 2.1 μg/L.

Aquifer Tubes. Lead was detected in five of 12 unfiltered aquifer tube samples (42 percent frequency) with concentrations ranging from 0.21 to 0.57 μg/L. Lead concentrations and MDLs in unfiltered samples are less than the ESL of 2.1 μg/L.

Pore Water. Lead was not detected in unfiltered pore water samples (7 samples). Most MDLs are greater than the ESL of 2.1 μg/L.

Seeps/Springs. Lead was detected in all nine unfiltered seep/spring samples (100 percent frequency). Lead concentrations in unfiltered samples ranged from 0.27 to 8.0 μg/L. Of the nine detected results, two samples were reported with concentrations greater than the ESL of 2.1 μg/L. Lead concentrations greater than the ESL were reported at locations 100-D Spring 102-1 (4.7 μg/L) and 100-D Spring 110-1 (8.0 μg/L).

Lead was detected in all four filtered seep/spring samples (100 percent frequency) with concentrations ranging from 0.016 to 0.20 μg/L. All lead concentrations in filtered samples and MDLs are less than the ESL of 2.1 μg/L.

Surface Water. Lead was not detected in unfiltered surface water samples (6 samples). All MDLs were greater than the ESL of 2.1 μg/L.

Manganese

Groundwater. Manganese was detected in 15 of 36 unfiltered groundwater samples (42 percent frequency) with concentrations ranging from 4.1 to 64 μg/L. Manganese was detected in six of 37 filtered groundwater samples (16 percent frequency) with concentrations ranging from 4.7 to 23 μg/L. All manganese concentrations and MDLs are less than the ESL of 120 μg/L.

Aquifer Tubes. Manganese was detected in 37 of 64 unfiltered aquifer tube samples (58 percent frequency). Manganese concentrations in unfiltered samples ranged from 3.6 to 171 μg/L. Of the 37 detected results, one sample was reported with a concentration greater than the ESL of 120 μg/L. Manganese was detected at location C7648 (171 μg/L).

Manganese was detected in 22 of 62 filtered aquifer tube samples (35 percent frequency). Manganese concentrations in filtered samples ranged from 0.54 to 149 μg/L. Of the 22 detected results, one sample was reported with a concentration greater than the ESL of 120 μg/L. Manganese was detected at location Redox-2-6.0 (149 μg/L).

Pore Water. Manganese was detected in all seven unfiltered pore water samples (100 percent frequency) with concentrations ranging 1.1 to 8.3 μg/L. Manganese concentrations in unfiltered samples are less than the ESL of 120 μg/L.

Seep/Spring. Manganese was detected in all 11 unfiltered seep/spring samples (100 percent frequency). Manganese concentrations in filtered samples ranged from 0.61 to 935 µg/L. Of the 11 detected results, one samples was reported with a concentration greater than the ESL of 120 µg/L. Manganese was detected at location SD-110-1 (935 µg/L).

Manganese was detected in three of four filtered seep/spring samples (75 percent frequency), with concentrations ranging from 2.1 to 8.5 µg/L. Manganese concentrations in unfiltered samples are less than the ESL of 120 µg/L.

Surface Water. Manganese was detected in all six unfiltered surface water samples (100 percent frequency) with concentrations ranging 1.8 to 3.4 µg/L. Manganese concentrations in unfiltered samples are less than the ESL of 120 µg/L.

Mercury

Groundwater. Mercury was not detected in unfiltered (nine samples) and filtered (9 samples) groundwater samples. All MDLs are greater than the ESL of 0.012 µg/L.

Aquifer Tubes. Mercury was not detected in unfiltered aquifer tube samples (12 samples). All MDLs are greater than the ESL of 0.012 µg/L

Pore Water. Mercury was not detected in unfiltered pore water samples (7 samples). All MDLs are greater than the ESL of 0.012 µg/L.

Seeps/Springs. Mercury was detected in all eight unfiltered seep/spring samples (100 percent frequency). Mercury concentrations in unfiltered samples ranged from 0.00047 to 0.021 µg/L. Of the eight detected results, two samples were reported with concentrations greater than the ESL of 0.012 µg/L. Mercury concentrations above the ESL were reported at 100-D Spring 102-1 (0.021 µg/L) and 100-D Spring 110-1 (0.02 µg/L).

Surface Water. Mercury was not detected unfiltered surface water samples (6 samples). All MDLs are greater than the ESL of 0.012 µg/L.

Nickel

Groundwater. Nickel was detected in 21 of 36 unfiltered groundwater samples (58 percent frequency). Nickel concentrations in unfiltered samples ranged from 4.0 to 69 µg/L. Of the 21 detected results, three samples were reported with concentrations greater than the ESL of 45 µg/L. Nickel was detected at Monitoring Well 199-D4-84 (69 µg/L) and flagged with a "C" qualifier, indicating the analyte was reported in the laboratory method blank. Nickel was detected at Monitoring Wells 199-D4-99 (51 µg/L) and 199-D4-84 (47 µg/L).

Nickel was detected in 17 of 37 filtered groundwater samples (46 percent frequency). Nickel concentrations in filtered samples ranged from 4.0 to 68 µg/L. Of the 17 detected results, two samples were reported with concentrations greater than the ESL of 45 µg/L. Nickel was detected at Monitoring Well 199-D4-84 (46 and 68 µg/L), with one sample flagged with a "C" qualifier.

All MDLs are less than the ESL.

Aquifer Tubes. Nickel was detected in 29 of 64 unfiltered aquifer tube samples (45 percent frequency). Nickel concentrations in unfiltered samples ranged from 1.2 to 195 µg/L. Of the 29 detected results, 10 samples were reported with concentrations greater than the ESL of 45 µg/L.

Nickel was detected in 24 of 62 filtered aquifer tube samples (39 percent frequency). Nickel concentrations in filtered samples ranged from 0.32 to 188 µg/L. Of the 24 detected results, 8 samples were reported with concentrations greater than the ESL of 45 µg/L.

All MDLs are less than the ESL.

Pore Water. Nickel was detected in two of seven unfiltered pore water samples (29 percent frequency) with concentrations ranging from 1.7 to 2.6 µg/L. All nickel concentrations and MDLs in unfiltered samples are less than the ESL of 45 µg/L.

Seeps/Springs. Nickel was detected in 10 of 16 unfiltered seep/spring samples (63 percent frequency) with concentrations ranging from 0.22 to 29 µg/L. Nickel was detected in five of eight filtered seep/spring samples (63 percent frequency) with concentrations ranging from1.3 to 5.0 µg/L. All nickel concentrations and MDLs in unfiltered and filtered samples are less than the ESL of 45 µg/L.

Surface Water. Nickel was detected in one of six unfiltered surface water samples (17 percent frequency) at a concentration of 1.3 µg/L. All nickel concentrations and MDLs in unfiltered groundwater samples are less than the ESL of 45 µg/L.

Nitrate

Groundwater. Nitrate was detected in 75 of 76 unfiltered groundwater samples (99 percent frequency). Nitrate concentrations in unfiltered samples ranged from 3,000 to 52,200 µg/L. Of the 75 detected results, 73 samples reported concentrations greater than the ESL of 7,100 µg/L.

Aquifer Tubes. Nitrate was detected in 200 of 207 unfiltered aquifer tube samples (97 percent frequency). Nitrate concentrations in unfiltered samples ranged from 53 to 41,600 µg/L. Of the 200 detected results, 110 samples reported concentrations greater than the ESL of 7,100 µg/L.

Nitrite

Groundwater. Nitrite was detected in five of 76 unfiltered groundwater samples (6.6 percent frequency). Nitrite concentrations in unfiltered samples ranged from 31 to 2,040 µg/L. Of the five detected results, four samples reported concentrations greater than the ESL of 246 µg/L.

Aquifer Tubes. Nitrite was detected in three of 207 unfiltered aquifer tube samples (1.5 percent frequency). Nitrite concentrations in unfiltered samples ranged from 39 to 460 µg/L. Of the three detected results, one sample was reported with a concentration greater than the ESL of 246 µg/L. Nitrite was detected at location AT-D-3-D (460 µg/L) and flagged with a "BD," indicating the analyte was detected at the contract required detection limit, but the measured concentration is below the practical quantitation limit (PQL) and reported by a secondary dilution factor.

Nitrogen in Nitrate

Pore Water. Nitrogen in nitrate was detected in all seven unfiltered pore water samples (100 percent frequency) with concentrations ranging from 122 to 980 µg/L. Nitrogen in nitrate concentrations in unfiltered samples is less than the ESL of 1,600 µg/L.

Seep/Spring. Nitrogen in nitrate was detected in all 18 unfiltered seep/spring samples (100 percent frequency). Nitrogen in nitrate concentrations in unfiltered samples ranges from 226 to 295,000 µg/L. Of the 18 detected results, 10 samples were reported with concentrations greater than the ESL of 1,600 µg/L.

Surface Water. Nitrogen in nitrate was detected in all six unfiltered surface water samples (100 percent frequency) with concentrations ranging from 113 to 470 µg/L. Nitrogen in nitrate concentrations in unfiltered samples is less than the ESL of 1,600 µg/L.

Selenium

Groundwater. Selenium was detected in seven of 10 unfiltered groundwater samples (70 percent frequency) with concentrations ranging from 0.38 to 2.2 µg/L. Selenium was detected in nine of 10 unfiltered groundwater samples (90 percent frequency) with concentrations ranging from 0.45 to 2.6 µg/L. All selenium concentrations and MDLs in unfiltered and filtered samples are less than the ESL of 5.0 µg/L.

Aquifer Tubes. Selenium was detected in eight of 12 unfiltered aquifer tube samples (67 percent frequency) with concentrations ranging from 0.81 to 1.8 µg/L. All selenium concentrations and MDLs in unfiltered samples are less than the ESL of 5.0 µg/L.

Pore Water. Selenium was detected in one of seven unfiltered pore water samples (14 percent frequency) at a concentration of 4.9 µg/L. Selenium concentrations are less than the ESL of 5.0 µg/L.

Seep/Spring. Selenium was detected in five of nine unfiltered seep/spring samples (56 percent frequency) with concentrations ranging from 0.34 to 2.7 µg/L. Selenium was detected in two of four filtered seep/spring samples (50 percent frequency) with concentrations ranging from 0.22 to 0.33 µg/L. All selenium concentrations and MDLs in unfiltered and filtered samples are less than the ESL of 5.0 µg/L.

Surface Water. Selenium was detected in one of five unfiltered surface water samples (20 percent frequency). Selenium was detected once at a concentration greater than the ESL at location RCBRA CR6 (5.9 µg/L). Although the single detected concentration is greater than the ESL, it is less than the Hanford Site background value of 11 µg/L. All MDLs are less than the ESL.

Silver

Groundwater. Silver was detected in four of 36 unfiltered groundwater samples (11 percent frequency). Silver concentrations in unfiltered samples ranged from 23 to 29 µg/L. All four silver concentrations in unfiltered samples are greater than the ESL of 2.6 µg/L, and flagged with a "C" qualifier. Detected concentrations greater than the ESL were reported by Method 6010. MDLs for Method 6010 ranged from 1.7 to 11 µg/L, Most MDLs are greater than the ESL of 2.6 µg/L. MDLs for Method 200.8 range from 0.1 to 0.2 µg/L and are less than the ESL.

Silver was detected in five of 37 filtered groundwater samples (14 percent frequency). Silver concentrations in filtered samples ranged from 0.29 to 31 µg/L. Of the five detected results, four samples were reported with concentrations greater than the ESL of 2.6 µg/L and flagged with "C" qualifiers. Detected concentrations greater than the ESL were reported by Method 6010. MDLs for Method 6010 ranged from 1.7 to 11 µg/L. Most MDLs are greater than the ESL of 2.6 µg/L. MDLs for Method 200.8 range from 0.1 to 0.2 µg/L and are less than the ESL.

Aquifer Tubes. Silver was detected in two of 64 unfiltered groundwater samples (3.1 percent frequency). Silver concentrations in unfiltered samples ranged from 8 to 22 µg/L. Both silver concentrations in unfiltered samples are greater than the ESL of 2.6 µg/L. Silver concentrations greater than the ESL were flagged with a "C" or a "BC" qualifier by Method 6010. MDLs for samples analyzed by Method 6010 range from 2.2 to 7 µg/L. Most MDLs are greater than the ESL of 2.6 µg/L. MDLs for samples analyzed by Method 200.8 range from 0.1 to 0.2 µg/L, which are less than the ESL.

Silver was detected in one of 62 filtered aquifer tube samples (1.6 percent frequency). Silver was detected once at a concentration greater than the ESL of 2.6 µg/L. Silver was detected at location AT-D-D (22 µg/L) by Method 6010. The single silver sample was flagged with a "C" qualifier indicating the analyte was detected in both the sample and the laboratory blank. MDLs for samples analyzed by Method 6010 range from 2.2 to 7 µg/L. Most MDLs are greater than the ESL of 2.6 µg/L. MDLs for samples analyzed by Method 200.8 are 0.1 µg/L, which are less than the ESL.

Pore Water. Silver was not detected in unfiltered pore water samples (7 samples). All MDLs are less than the ESL of 2.6 µg/L.

Seep/Spring. Silver was detected in four of 15 unfiltered seep/spring samples (27 percent frequency), and not detected in filtered seep/spring samples (8 samples). Silver concentrations in unfiltered samples range from 0.0070 µg/L to 0.053 µg/L. Silver concentrations in unfiltered samples are less than the ESL of 2.6 µg/L. All MDLs for filtered and unfiltered samples are less than the ESL.

Surface Water. Silver was not detected in unfiltered surface water samples (6 samples). All MDLs are less than the ESL.

Zinc

Groundwater. Zinc was detected in 28 of 36 unfiltered groundwater samples (78 percent frequency). Zinc concentrations in unfiltered samples ranged from 6.0 to 342 µg/L. Of the 28 detected results, 16 samples reported concentrations greater than the ESL of 90 µg/L.

Zinc was detected in 29 of 37 filtered groundwater samples (78 percent frequency). Zinc concentrations in filtered samples ranged from 5.0 to 329 µg/L. Of the 29 detected results, 12 samples reported concentrations greater than the ESL of 90 µg/L.

All MDLs are less than the ESL.

Aquifer Tubes. Zinc was detected in 25 of 64 unfiltered aquifer tube samples (39 percent frequency). Zinc concentrations in unfiltered samples ranged from six to 111 µg/L. Of the 25 detected results, two samples reported concentrations greater than the ESL of 90 µg/L. Zinc was detected at location Redox-4-6.0 (111 and 96 µg/L).

Zinc was detected in 15 of 62 filtered aquifer tube samples (24 percent frequency) with concentrations ranging from 1.8 to 47 µg/L. Zinc concentrations in filtered samples are less than the ESL of 90 µg/L.

All MDLs are less than the ESL.

Pore Water. Zinc was detected in three of seven unfiltered pore water samples (43 percent frequency) with concentrations ranging from 0.84 to 6.4 µg/L. Zinc concentrations in unfiltered samples are less than the ESL of 90 µg/L.

Seeps/Springs. Zinc was detected in all 19 unfiltered seep/spring samples (100 percent frequency). Zinc concentrations in unfiltered samples ranged from 1.5 to 415 µg/L. Of the 19 detected results, one sample was reported with a concentration greater than the ESL of 90 µg/L. Zinc was detected at location SD-110-1 (415 µg/L).

Zinc was detected in all eight filtered seep/spring samples (100 percent frequency) with concentrations ranging from 1.2 to 28 µg/L. Zinc concentrations in filtered samples are less than the ESL of 90 µg/L.

Surface Water. Zinc was detected in four of six unfiltered surface water samples (67 percent frequency) with concentrations ranging from 1.7 to 7.8 µg/L. All zinc concentrations and MDLs in unfiltered samples are less than the ESL of 90 µg/L.

L3.3.4.2 100-H Source Area

Analytes with maximum detected concentrations greater than their respective ESLs are described below. Tables L-42 through L-45 provides a summary of the analytes with maximum detected concentrations greater than their respective ESL for each water media. Table L-46 summarizes the results for all water media and all contaminants of interest described below.

Aluminum

Groundwater. Aluminum was detected in 12 of 21 unfiltered groundwater samples (57 percent frequency). Aluminum concentrations in unfiltered samples ranged from 6.1 and 3,320 µg/L. Of the 12 detected results, five samples were reported with concentrations greater than the ESL of 87 µg/L. Aluminum concentrations greater than the ESL were reported at Monitoring Wells 199-H3-9 and 199-H2-1, with concentrations ranging between 29 and 3,320 µg/L. The five aluminum samples were flagged with "D" qualifiers, indicating the analyte was reported at a secondary dilution factor.

Aluminum was detected in three of 11 filtered groundwater samples (27 percent frequency) with concentration ranging from 10 to 20 µg/L. All aluminum concentrations in filtered samples are less than the ESL of 87 µg/L.

All MDLs are less than the ESL.

Pore Water. Aluminum was detected in one of two unfiltered pore water samples (50 percent frequency). All aluminum concentrations and MDLs in unfiltered samples are less than the ESL of 87 µg/L.

Seep/Spring. Aluminum was detected in eight of nine unfiltered seep/spring samples (89 percent frequency), and was not detected in filtered seep/spring samples (6 samples). Aluminum concentrations in unfiltered samples ranged from 27 to 2,120 µg/L. Of the eight detected results, four samples were reported with concentrations greater than the ESL of 87 µg/L. Aluminum was detected at locations 100-H Spring, SH-150-1, and SH-152-2, with concentrations ranging between 88 and 2,120 µg/L.

All MDLs are less than the ESL.

Surface Water. Aluminum was detected in four of five unfiltered surface water samples (80 percent frequency). Aluminum concentrations in unfiltered samples range from 40 to 380,000 µg/L. Of the four detected results, three samples were reported with concentrations greater than the ESL of 87 µg/L. Aluminum was detected at location 100-H Area, with concentrations ranging between 78,000 µg/L and 380,000 µg/L. All MDLs are less than the ESL.

Antimony

Groundwater. Antimony was not detected in unfiltered groundwater samples (70 samples), and was detected in one of 65 filtered groundwater samples (1.5 percent frequency). The single antimony concentration was reported at location 199-H4-4 (40 µg/L), and flagged with a "Y" review qualifier indicating the result is suspect. Although the maximum detected concentration is greater than the ESL, the single detected result is less than the Hanford Site background value of 55 µg/L.

Aquifer Tubes. Antimony was not detected in unfiltered (10 samples) and filtered (10 samples) aquifer tube samples. Most MDLs are greater than the ESL of 30 µg/L.

Pore Water. Antimony was not detected in unfiltered aquifer tube samples (2 samples). All MDLs are less than the ESL of 30 µg/L.

Seep/Spring. Antimony was detected in seven of 13 unfiltered seep/spring samples (54 percent frequency) with concentrations ranging from 0.18 to 0.38 µg/L. Antimony was detected in four of 10 filtered seep/spring samples (40 percent frequency), with concentrations ranging from 0.18 to 0.27 µg/L. All antimony concentration and MDLs are less than the ESL of 30 µg/L.

Surface Water. Antimony was detected in three of five unfiltered surface water samples (60 percent frequency). Antimony concentrations in unfiltered samples ranged from 27 to 61 µg/L. Of the three detected results, two samples were reported with concentrations greater than the ESL of 30 µg/L. Antimony was reported at location 100-H Area (61 µg/L) with a concentration greater than the Hanford Site background level of 55 µg/L.

Barium

Groundwater. Barium was detected in all 70 unfiltered groundwater samples (100 percent frequency), with concentrations ranging from 26 to 150 µg/L. Barium was detected in all 65 filtered groundwater samples (100 percent frequency), with concentration ranging from 30 to 121 µg/L. All barium concentrations are less than the ESL of 364 µg/L.

Aquifer Tubes. Barium was detected in all 10 unfiltered aquifer tube samples (100 percent frequency), with concentrations ranging from 14 to 56 µg/L. Barium was detected in all 10 filtered aquifer tube samples (100 percent frequency) with concentration ranging from 13 to 28 µg/L. All barium concentrations are less than the ESL of 364 µg/L.

Pore Water. Barium was detected in all two unfiltered pore water samples (100 percent frequency) with concentration ranging from 29 to 33 µg/L. All barium concentrations in unfiltered samples are less than the ESL of 364 µg/L.

Seep/Spring. Barium was detected in all nine unfiltered seep/spring samples (100 percent frequency), with concentrations ranging from 22 to 53 µg/L. Barium was detected in all six filtered seep/spring samples (100 percent frequency), with concentration ranging from 21 to 28 µg/L. All barium concentrations are less than the ESL of 364 µg/L.

Surface Water. Barium was detected in all five unfiltered surface water samples (100 percent frequency). Barium concentrations in unfiltered samples ranged from 30 to 3,000 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 364 µg/L. Barium was detected at location 100-H Area (35 to 3,000 µg/L).

Cadmium

Groundwater. Cadmium was detected in two of 65 filtered groundwater samples (3.1 percent frequency) and was not detected in unfiltered groundwater samples (70 samples). Cadmium concentrations in filtered samples ranged from 0.24 to 0.39 µg/L. Two samples were reported with concentrations greater than the ESL of 0.22 µg/L. Although the maximum detected concentration is greater than the ESL, cadmium is reported at concentration less than the Hanford Site background level of 0.92 µg/L.

Aquifer Tubes. Cadmium was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. Most MDLs are greater than the ESL of 0.22 µg/L.

Pore Water. Cadmium was not detected in unfiltered pore water samples (2 samples). Both MDLs are greater than the ESL of 0.22 µg/L.

Seep/Spring. Cadmium was detected in nine of 13 unfiltered seep/spring samples (69 percent frequency). Cadmium concentrations in unfiltered samples ranged from 0.016 to 3.5 µg/L. Of the nine detected results, three samples were reported with concentrations greater than the ESL of 0.22 µg/L. Cadmium concentrations greater than the Hanford Site background value of 0.92 µg/L were reported at locations SH-144-1 (3.3 µg/L) and SH-145-1 (3.5 µg/L). Both cadmium results were flagged with a "B" qualifier indicating the analyte was detected at a value less than the contract required detection limit, but greater than or equal to the MDL.

Cadmium was detected in four of 10 filtered seep/spring samples (40 percent frequency), with concentrations ranging from 0.011 to 0.041 µg/L. Cadmium concentrations in filtered samples are less than the ESL of 0.22 µg/L.

All MDLs are greater than the ESL.

Surface Water. Cadmium was detected in two of five unfiltered surface water samples (40 percent frequency). Cadmium concentrations in unfiltered samples range from 1.8 to 19 µg/L. Cadmium was detected at location 100-H Area (1.8 and 19 µg/L). Both cadmium concentrations in unfiltered samples are greater than the ESL of 0.22 µg/L and the Hanford Site background value of 0.92 µg/L. All MDLs are greater than the ESL.

Calculated Total Uranium

Pore Water. Calculated total uranium was detected in all two unfiltered pore water samples (100 percent frequency) at concentrations 0.31 and 0.99 µg/L. Calculated total uranium values are less than the ESL of 5.0 µg/L.

Seep/Spring. Calculated total uranium was not collected from seeps/springs.

Surface Water. Calculated total uranium was detected in all two unfiltered pore water samples (100 percent frequency) at concentrations 0.31 and 0.99 µg/L. Calculated total uranium values are less than the ESL of 5.0 µg/L.

Chromium

Groundwater. Chromium was detected in 55 of 70 unfiltered groundwater samples (79 percent frequency). Chromium concentrations in unfiltered samples ranged from 2.9 to 319 µg/L. Of the 55 detected results, eight samples were reported with concentrations greater than the ESL of 64 µg/L.

Chromium was detected in 46 of 65 filtered groundwater samples (71 percent frequency). Chromium concentrations in filtered samples ranged from 6.6 to 128 µg/L. Of the 46 detected results, seven samples were reported with concentrations greater than the ESL of 64 µg/L.

All MDLs are less than the ESL.

Aquifer Tubes. Chromium was detected in four of 10 unfiltered aquifer tube samples (40 percent frequency) with concentrations ranging from 20 to 37 µg/L. Chromium was detected in five of 10 filtered aquifer tube samples (50 percent frequency) with concentrations ranging from 14 to 36 µg/L. All chromium concentrations and MDLs are less than the ESL of 64 µg/L.

Pore Water. Chromium was not detected unfiltered pore water samples (two samples). All MDLs are less than the ESL of 64 µg/L.

Seep/Spring. Chromium was detected in 14 of 16 unfiltered seep/spring samples (88 percent frequency) with concentrations ranging from 3.6 to 63 µg/L. Chromium was detected in seven of 10 filtered

seep/spring samples (70 percent frequency) with concentrations ranging from 4.6 to 33 µg/L. All chromium concentrations and MDLs are less than the ESL of 64 µg/L.

Surface Water. Chromium was detected in three of five unfiltered surface water samples (60 percent frequency). Chromium concentrations in unfiltered samples ranged from 170 to 1,900 µg/L. All three samples were reported with concentrations greater than the ESL of 64 µg/L. All MDLs are less than the ESL.

Cobalt

Groundwater. Cobalt was detected in 15 of 70 unfiltered groundwater samples (21 percent frequency). Cobalt concentrations in unfiltered samples ranged from 0.062 to 25 µg/L. Of the 15 detected results, one sample was reported with a concentration greater than the ESL of 23 µg/L. Cobalt was detected at Monitoring Well 199-H4-13 (25 µg/L) and flagged with a "C" qualifier, indicating the analyte was reported in the laboratory method blank.

Cobalt was detected in eight of 65 filtered groundwater samples (12 percent frequency). Cobalt concentrations in filtered samples ranged from 0.11 to 27 µg/L. Of the eight detected results, one sample was reported with a concentration greater than the ESL of 23 µg/L. Cobalt was detected at Monitoring Well 199-H4-14 (27 µg/L) and flagged with a "C" qualifier, indicating the analyte was reported in the laboratory method blank.

All MDLs are less than the ESL.

Aquifer Tubes. Cobalt was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. All MDLs are less than the ESL of 23 µg/L.

Pore Water. Cobalt was not detected in unfiltered pore water samples (2 samples). All MDLs are less than the ESL of 23 µg/L.

Seep/Spring. Cobalt was not detected in filtered (six samples) and unfiltered (6 samples) seep/spring samples. All MDLs are less than the ESL of 23 µg/L.

Surface Water. Cobalt detected in three of five unfiltered surface water samples (60 percent frequency). Cobalt concentrations in unfiltered samples ranged from 97 to 540 µg/L. All three samples were reported with concentrations greater than the ESL of 23 µg/L. Cobalt was detected at location 100-H Area (97, 120, and 540 µg/L).

Copper

Groundwater. Copper was detected in 27 of 70 unfiltered groundwater samples (39 percent frequency). Copper concentrations in unfiltered samples ranged from 0.12 to 136 µg/L. Of the 27 detected results, six samples were reported with concentrations greater than the ESL of 10 µg/L. All MDLs for unfiltered samples are less than the ESL.

Copper was detected in 11 of 65 filtered groundwater samples (17 percent frequency). Copper concentrations in filtered samples ranged from 0.22 to 13 µg/L. Of the 11 detected results, one sample was reported with a concentration greater than the ESL of 10 µg/L. The single copper concentration above the ESL was reported at monitoring Well 199-H4-13 (13 µg/L). The copper result was flagged with a "C" qualifier, indicating that the analyte was detected in the sample and the laboratory method blank. Most MDLs for filtered samples are less than ESL.

Aquifer Tubes. Copper was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. All MDLs are less than the ESL of 10 µg/L.

Pore Water. Copper was detected in two unfiltered pore water sample (100 percent frequency) at concentrations 0.94 and 1.4 µg/L. Copper concentrations in unfiltered samples are less than the ESL of 10 µg/L.

Seep/Spring. Copper was detected in 12 of 15 unfiltered seep/spring samples (80 percent frequency). Copper concentrations in unfiltered samples ranged from 0.57 to 27 µg/L. Of the 12 detected results, one sample was reported with a concentration greater than the ESL of 10 µg/L. Copper was detected at location 100-H Spring 145-1 (27 µg/L).

Copper was detected in four of 10 filtered seep/spring samples (40 percent frequency) with concentrations ranging from 0.47 to 0.52 µg/L. All copper concentrations in filtered samples are less than the ESL of 10 µg/L.

All MDLs are less than the ESL.

Surface Water. Copper was detected in four of five unfiltered surface water samples (80 percent frequency). Copper concentrations in unfiltered samples ranged from 2.8 to 800 µg/L. Of the four detected results, three samples were reported with concentrations greater than the ESL of 10 µg/L. Copper was detected at location 100-H Area (140 µg/L, 280 µg/L, and 800 µg/L). All MDLs are less than the ESL.

Fluoride

Groundwater. Fluoride was detected in 60 of 91 unfiltered groundwater samples (39 percent frequency) with concentrations ranging from 26 to 255 µg/L. All fluoride concentrations and MDLs are less than the ESL of 300 µg/L.

Aquifer Tubes. Fluoride was detected in 50 of 68 unfiltered aquifer tube samples (74 percent frequency) with concentrations ranging from 14 to 182 µg/L. All fluoride concentrations and MDLs are less than the ESL of 300 µg/L.

Pore Water. Fluoride was not detected unfiltered pore water samples (2 samples). All MDLs are less than the ESL of 300 µg/L.

Seep/Spring. Fluoride detected in all 17 unfiltered seep/spring samples (100 percent frequency). Fluoride concentrations ranged from 47 to 500 µg/L. Of the 17 detected results, the samples were reported with samples greater than the ESL of 300 µg/L. Although the maximum detected concentration is greater than the ESL, fluoride concentrations are less than the Hanford Site background value of 1,047 µg/L.

Surface Water. Fluoride was detected in two of four unfiltered surface water samples (50 percent frequency) with concentrations ranging from 98 to 140 µg/L. All fluoride concentrations and MDLs are less than the ESL of 300 µg/L.

Cr(VI)

Groundwater. Cr(VI) was detected in 573 of 590 unfiltered groundwater samples (97 percent frequency). Cr(VI) concentrations in unfiltered samples ranged from 2.0 to 287 µg/L. Of the 573 detected results, 473 samples were reported with concentrations greater than the ESL of 10 µg/L.

Cr(VI) was detected in 102 of 111 filtered groundwater samples (92 percent frequency). Cr(VI) concentrations in filtered samples ranged from 3.4 to 140 µg/L. Of the 102 detected results, 78 samples were reported with concentrations greater than the ESL of 10 µg/L.

All MDLs for the filtered and unfiltered samples are less than the ESL.

Aquifer Tubes. Cr(VI) was detected in 198 of 254 unfiltered aquifer tube samples (78 percent frequency). Cr(VI) concentrations in unfiltered samples ranged from 2.1 to 74 µg/L. Of the 198 detected results, 118 samples were reported with concentrations greater than the ESL of 10 µg/L.

Cr(VI) was detected in 83 of 105 filtered aquifer tube samples (79 percent frequency). Cr(VI) concentrations in filtered samples ranged from 2.3 to 42 µg/L. Of the 83 detected results, 41 samples were reported with concentrations greater than the ESL of 10 µg/L.

All MDLs are less than the ESL.

Pore Water. Cr(VI) was detected in one of two unfiltered pore water sample (50 percent frequency) at a concentration of 4.6 µg/L. All Cr(VI) concentrations and MDLs are less than the ESL of 10 µg/L.

Surface Water. Cr(VI) was detected in one of two unfiltered surface water samples (50 percent frequency) at a concentration of 3.6 µg/L. All Cr (VI) concentrations and MDLs are less than the ESL of 10 µg/L.

Iron

Groundwater. Iron was not detected in 28 of 59 unfiltered groundwater samples (47 percent frequency) with concentrations ranging from 12 to 733 µg/L. Iron was detected in 15 of 65 filtered groundwater samples (23 percent frequency) with concentrations ranging from 18 to 298 µg/L. All iron concentrations and MDLs are less than the ESL of 1,000 µg/L.

Aquifer Tubes. Iron was detected in seven of 10 unfiltered aquifer tube samples (70 percent frequency) with concentrations ranging from 38 to 568 µg/L. Iron was not detected in filtered groundwater samples (10 samples). Iron concentrations in unfiltered samples are less than the ESL of 1,000 µg/L. All MDLs are less than the ESL.

Pore Water. Iron was detected one of two unfiltered pore water samples (50 percent frequency) at a concentration of 27 µg/L. The single iron concentration in unfiltered sample is less than the ESL of 1,000 µg/L.

Seep/Spring. Iron was detected in all nine unfiltered seep/spring samples (100 percent frequency). Iron concentrations in unfiltered samples ranged from 20 to 2,240 µg/L. Of the nine detected results, one sample was reported with a concentration greater than the ESL of 1,000 µg/L. Iron was detected at location 100-H Spring 150-1 (2,240 µg/L).

Iron was detected in one of six filtered seep/spring samples (17 percent frequency) at a concentration of 16 µg/L. The single iron concentration in filtered samples is less than the ESL of 1,000 µg/L. All MDLs are less than the ESL.

Surface Water. Iron was detected in all five unfiltered surface water samples (100 percent frequency). Iron concentrations in unfiltered samples ranged from 24 to 760,000 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 1,000 µg/L. Iron was detected at location 100-H Area (120,000 µg/L, 180,000 µg/L, and 760,000 µg/L).

Lead

Groundwater. Lead was detected in six of 21 unfiltered groundwater samples (29 percent frequency). Lead concentrations in unfiltered samples ranged from 0.24 to 7.9 µg/L. Of the six detected results, two samples were reported with concentrations greater than the ESL of 2.1 µg/L. The two lead samples were flagged with “D” qualifiers, indicating the analyte was reported at a secondary dilution factor. Lead was detected at Monitoring Wells 199-H2-1 (7.9 µg/L) and 199-H3-9 (2.3 µg/L). All MDLs are less than the ESL.

Lead was detected in four of 12 filtered groundwater samples (33 percent frequency). Lead concentrations in filtered samples ranged from 0.37 to 2.5 µg/L. Of the four detected results, two samples were reported with concentrations greater than the ESL of 2.1 µg/L. The two lead results were flagged with a "B" qualifier, indicating the analyte was detected at a value less than the contract required detection limit, but greater than or equal to the MDL. Lead concentrations were detected at Monitoring Wells 199-H2-1 (2.5 µg/L) and 199-H3-9 (2.2 µg/L). Most MDLs are less than the ESL.

Aquifer Tubes. Lead was detected in one of six unfiltered aquifer tube samples (17 percent frequency) at a concentration of 0.77 µg/L. All lead concentrations in unfiltered samples and MDLs are less than the ESL of 2.1 µg/L.

Pore Water. Lead was not detected unfiltered pore water samples (two samples). All MDLs are less than the ESL of 2.1 µg/L.

Seep/Spring. Lead was detected in all seven unfiltered seep/spring samples (100 percent frequency). Lead concentrations in unfiltered samples ranged from 0.37 to 66 µg/L. Of the seven detected results, two samples were reported with concentrations greater than the ESL of 2.1 µg/L. Lead was detected at location 100-H Spring 145-1 (5.4 and 66 µg/L).

Lead was detected in three of four filtered seep/spring samples (75 percent frequency), with concentrations ranging from 0.028 to 0.28 µg/L. Lead concentrations in filtered samples are less than the ESL of 2.1 µg/L.

Surface Water. Lead was not detected in unfiltered surface water samples (2 samples). All MDLs are less than the ESL of 2.1 µg/L.

Manganese

Groundwater. Manganese was detected in 14 of 70 unfiltered groundwater samples (20 percent frequency). Manganese concentration in unfiltered samples ranged from 4.8 to 447 µg/L. Of the 14 detected results, two samples were reported with concentrations greater than the ESL of 120 µg/L. Manganese was detected at Monitoring Wells 199-H3-9 (168 µg/L) and 199-H2-1 (447 µg/L).

Manganese was detected in seven of 65 filtered groundwater samples (11 percent frequency) with concentrations ranging from 2.6 to 16 µg/L. Manganese concentrations in filtered samples are less than the ESL of 120 µg/L.

All MDLs are less than the ESL.

Aquifer Tubes. Manganese was detected in five of 10 unfiltered aquifer tube samples (50 percent frequency). Manganese concentrations in unfiltered samples ranged from 6.0 to 167 µg/L. Of the five detected results, one sample was reported with a concentration greater than the ESL of 120 µg/L. Manganese was detected at location C7650 (167 µg/L).

Manganese was detected in two of 10 filtered aquifer tube samples (20 percent frequency) at concentrations 4.2 and 6.0 µg/L. Manganese concentrations in filtered samples are less than the ESL of 120 µg/L.

All MDLs are less than the ESL.

Pore Water. Manganese was detected in all two unfiltered pore water samples (100 percent frequency) at concentrations 2.0 and 2.2 µg/L. Manganese concentrations are less than the ESL of 120 µg/L.

Seep/Spring. Manganese was detected in eight of nine unfiltered seep/spring samples (89 percent frequency) with concentrations ranging from 2.8 to 75 µg/L. Manganese was not detected in filtered seep/spring samples (six samples). All manganese concentrations and MDLs are less than the ESL of 120 µg/L.

Surface Water. Manganese was detected in all five unfiltered surface water samples (100 percent frequency). Manganese concentrations in unfiltered samples ranged from 2.2 to 22,000 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 10 µg/L. Manganese was detected at location 100-H Area (4,100, 7,200, and 22,000 µg/L).

Mercury

Groundwater. Mercury was not detected in unfiltered (21 samples) and filtered (nine samples) groundwater samples. All MDLs are greater than the ESL of 0.012 µg/L.

Aquifer Tubes. Mercury was not detected in unfiltered aquifer tube samples (6 samples). All MDLs are greater than the ESL of 0.012 µg/L.

Pore Water. Mercury was not detected in unfiltered pore water samples (2 samples). All MDLs are greater than the ESL of 0.012 µg/L.

Seep/Spring. Mercury was detected in all seven unfiltered seep/spring samples (100 percent frequency). Mercury concentrations in unfiltered samples ranged from 0.00072 to 0.041 µg/L. Of the seven detected results, one sample was reported with a concentration greater than the ESL of 0.012 µg/L. Mercury was detected at location 100-H Spring 145-1 (0.041 µg/L).

Surface Water. Mercury was not detected in unfiltered surface water samples (2 samples). All MDLs are greater than the ESL of 0.012 µg/L.

Nickel

Groundwater. Nickel was detected in 18 of 70 unfiltered groundwater samples (26 percent frequency) with concentrations ranging from 1.4 to 28 µg/L. Nickel was detected in 11 of 65 filtered groundwater samples (17 percent frequency) with concentrations ranging from 0.63 to 25 µg/L. All nickel concentrations and MDLs are less than the ESL of 45 µg/L.

Aquifer Tubes. Nickel was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. All MDLs are less than the ESL of 45 µg/L.

Pore Water. Nickel was not detected in unfiltered pore water samples (2 samples). All MDLs are less than the ESL of 45 µg/L.

Seep/Spring. Nickel was detected in seven of 13 unfiltered seep/spring samples (54 percent frequency) with concentrations ranging from 0.18 to 11 µg/L. Nickel was detected in four of 10 filtered seep/spring samples (40 percent frequency) with concentrations ranging from 0.76 to 1.3 µg/L. All nickel concentrations and MDLs are less than the ESL of 45 µg/L.

Surface Water. Nickel was detected in three of five unfiltered surface water samples (60 percent frequency). Nickel concentrations in unfiltered samples ranged from 130 to 910 µg/L. All three nickel concentrations are greater than the ESL of 45 µg/L. Nickel was detected at location 100-H Area (130, 130, and 910 µg/L).

Nitrate

Groundwater. Nitrate was detected in all 115 unfiltered groundwater samples (100 percent frequency). Nitrate concentrations in unfiltered samples ranged from 460 to 42,900 µg/L. Of the 115 detected results, 95 samples were reported with concentrations greater than the ESL of 7,100 µg/L.

Aquifer Tubes. Nitrate was detected in all 68 unfiltered aquifer tube samples (100 percent frequency). Nitrate concentrations in unfiltered samples ranged from 553 to 602,000 µg/L. Of the 68 detected results, 44 samples were reported with concentrations greater than the ESL of 7,100 µg/L.

Nitrite

Groundwater. Nitrite was detected in five of 87 unfiltered groundwater samples (5.8 percent frequency). Nitrite concentrations in unfiltered samples ranged from 52 to 1,480 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 246 µg/L. Nitrite was detected at Monitoring Wells 199-H-63 (815 µg/L), 199-H4-13 (1,400 µg/L), and 199-H4-15A (1,480 µg/L) and flagged with "D" qualifiers, indicating the analyte was reported by a secondary dilution factor. Two of the three concentrations greater than the ESL were flagged with "Y" review qualifiers, indicating the results are suspect.

Aquifer Tubes. Nitrite was detected in one of 68 unfiltered aquifer tube samples (1.5 percent frequency), at a concentration of 49 µg/L. Nitrite concentrations and MDLs are less than the ESL of 246 µg/L.

Nitrogen in Nitrate

Pore Water. Nitrogen in nitrate was detected in all two unfiltered pore water samples (100 percent frequency), at concentrations 147 and 230 µg/L. Nitrogen in nitrate concentrations are less than the ESL of 1,600 µg/L.

Seep/Spring. Nitrogen in nitrate was detected in all 20 unfiltered seep/spring samples (100 percent frequency). Nitrogen in nitrate concentrations in unfiltered samples ranged from 100 to 23,000 µg/L. Of the 20 detected results, 14 samples were reported with concentrations greater than the ESL of 1,600 µg/L.

Surface Water. Nitrogen in nitrate was detected in all four unfiltered surface water samples (100 percent frequency), with concentrations ranging 102 of 1,265 µg/L. Nitrogen in nitrate concentrations are less than the ESL of 1,600 µg/L.

Potassium-40

Groundwater. Potassium-40 was detected in two of 25 unfiltered groundwater samples (8 percent frequency). Potassium-40 concentrations in unfiltered samples ranged from 210 to 280 pCi/L. Of the two detected results, one sample was reported with a concentration greater than the ESL of 250 pCi/L. Potassium-40 was detected at Monitoring Well 199-H2-1 (280 pCi/L). All MDLs are less than the ESL.

Aquifer Tubes. Potassium-40 was detected in one of four unfiltered aquifer tube samples (25 percent frequency). The single potassium-40 concentration in unfiltered samples is 300 pCi/L. Potassium-40 was detected at location C7650 (300 pCi/L) with a concentration greater than the ESL of 250 pCi/L. All MDLs are less than the ESL.

Pore Water. Potassium-40 was not detected in unfiltered pore water sample (2 samples). One MDL is greater than the ESL of 250 pCi/L.

Seep/Spring. Potassium-40 was detected in eight of 23 unfiltered seep/spring samples (35 percent frequency), with concentrations ranging from 20 to 222 pCi/L. Potassium-40 concentration in unfiltered samples are less than the ESL of 250 pCi/L.

Surface Water. Potassium-40 was not detected in unfiltered surface water sample (2 samples). All MDLs are less than the ESL of 250 pCi/L.

Radium-226

Groundwater. Radium-226 was detected in two of three unfiltered groundwater samples (67 percent frequency). Radium-226 concentrations in unfiltered samples are 79 and 82 pCi/L. All two samples were reported with concentrations greater than the ESL of 4.1 pCi/L. Radium-226 was detected at Monitoring Well 199-H3-9 (79 and 82 pCi/L). All MDLs are less than the ESL.

Pore Water. Radium-226 was not detected in unfiltered pore water sample (2 samples). All MDLs are less than the ESL of 4.1 pCi/L.

Surface Water. Radium-226 was not detected in unfiltered surface water sample (2 samples). All MDLs are less than the ESL of 4.1 pCi/L.

Silver

Groundwater. Silver was detected in 3 of 70 unfiltered groundwater samples (4.3 percent frequency). Silver concentrations in unfiltered samples ranged from 16 to 30 µg/L. All three silver samples were reported with concentrations greater than the ESL of 2.6 µg/L. The three silver concentrations greater than the ESL were reported at Monitoring Well 199-H4-13 (30 µg/L, 17 µg/L, and 16 µg/L). The three silver results were flagged with "C," "B," and "BX" qualifiers by Method 6010. MDLs range from 1.7 µg/L to 11 µg/L for samples that were analyzed by Method 6010. MDLs range from 0.1 µg/L to 0.2 µg/L for samples that were analyzed by Method 200.8.

Silver was detected in three of 65 filtered groundwater samples (4.6 percent frequency). Silver concentrations in filtered samples ranged from 0.32 to 25 µg/L. Of the three detected results, two samples were reported with concentrations greater than the ESL of 2.6 µg/L. The single silver concentration greater than the Hanford Site background value of 5.3 µg/L was reported at Monitoring Well 199-H4-13 (25 µg/L) by Method 6010. The single silver results were flagged with a "C" qualifier, indicating that the analyte was detected in the sample and the laboratory method blank. MDLs range from 1.7 µg/L to 11 µg/L for samples analyzed by Method 6010. MDLs range from 0.2 µg/L to 0.32 µg/L for samples analyzed by Method 200.8.

Aquifer Tubes. Silver was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. Most MDLs are greater than the ESL of 2.6 µg/L.

Pore Water. Silver was not detected in unfiltered pore water samples (2 samples). All MDLs are less than the ESL of 2.6 µg/L.

Seep/Spring. Silver was detected in six of 13 unfiltered seep/spring samples (46 percent frequency). Silver concentrations in unfiltered samples ranged from 0.0073 to 3.0 µg/L. Of the six detected results, one sample was reported with a concentration greater than the ESL of 2.6 µg/L. Although the maximum detected concentration is greater than the ESL, silver concentrations are less than the Hanford Site background value of 5.3 µg/L. Most MDLs are less than the ESL.

Silver was detected in two of 10 filtered seep/spring samples (20 percent frequency) at concentrations 0.010 and 1.8 µg/L. Silver concentration in filtered samples are less than the ESL of 2.6 µg/L. Most MDLs are less than the ESL.

Surface Water. Silver was not detected in unfiltered surface water samples (5 samples). Most MDLs are greater than the ESL of 2.6 µg/L.

Uranium

Groundwater. Uranium was detected in all 105 unfiltered groundwater samples (100 percent frequency). Uranium concentrations in unfiltered samples ranged from 0.41 to 11 µg/L. Of the 105 detected results, 16 samples were reported with concentrations greater than the ESL of 5.0 µg/L. One sample was reported with a concentration greater than the Hanford Site background level of 9.5 µg/L. Uranium was detected at Monitoring Well 199-H4-12A (11 µg/L).

Uranium was detected in all nine filtered groundwater samples (100 percent frequency), with concentrations ranging from 0.53 to 3.1 µg/L. Uranium concentrations are less than the ESL of 5.0 µg/L.

Aquifer Tubes. Uranium was detected in all 21 unfiltered aquifer tube samples (100 percent frequency), with concentrations ranging from 0.18 to 2.8 µg/L. Uranium concentrations are less than the ESL of 5.0 µg/L.

Pore Water. Uranium was not detected in unfiltered pore water samples (2 samples). All MDLs are greater than the ESL of 5.0 µg/L.

Surface Water. Uranium was not detected in unfiltered surface water samples (2 samples). All MDLs are greater than the ESL of 5.0 µg/L.

Vanadium

Groundwater. Vanadium was detected in 29 of 70 unfiltered groundwater samples (41 percent frequency), with concentrations ranging from 4.0 to 58 µg/L. Vanadium was detected in 26 of 65 filtered groundwater samples (40 percent frequency), with concentrations ranging from 7.1 to 51 µg/L. All vanadium concentrations and MDLs are less than the ESL of 100 µg/L.

Aquifer Tubes. Vanadium was not detected in filtered (10 samples) and unfiltered (10 samples) aquifer tube samples. All MDLs are less than the ESL of 100 µg/L.

Pore Water. Vanadium was not detected in unfiltered pore water samples (2 samples). All MDLs are less than the ESL of 100 µg/L.

Seep/Spring. Vanadium was not detected in filtered seep/spring samples (six samples). Vanadium was detected in two of seven unfiltered seep/spring samples (29 percent frequency), with concentrations ranging from 3.6 to 6.0 µg/L. All vanadium concentrations and MDLs are less than the ESL of 100 µg/L.

Surface Water. Vanadium was detected in all five unfiltered surface water samples (100 percent frequency). Vanadium concentrations in unfiltered samples ranged from 1.0 to 1,200 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 100 µg/L. Vanadium was detected at location 100-H Area (220, 390, and 1,200 µg/L).

Zinc

Groundwater. Zinc was detected in 32 of 70 unfiltered groundwater samples (46 percent frequency). Zinc concentrations in unfiltered samples ranged from 3.6 to 384 µg/L. Of the 32 detected results, seven samples were reported with concentrations greater than the ESL of 90 µg/L.

Zinc was detected in 22 of 65 filtered groundwater samples (34 percent frequency). Zinc concentrations in filtered samples ranged from 4.0 to 855 µg/L. Of the 22 detected results, two samples were reported with concentrations greater than the ESL of 90 µg/L. Zinc was detected at Monitoring Wells 199-H4-10 (429 µg/L) and 199-H4-63 (855 µg/L).

All MDLs are less than the ESL.

Aquifer Tubes. Zinc was detected in two of 10 unfiltered aquifer tube samples (20 percent frequency) at concentrations of 6.0 and 9.4 µg/L. Zinc was not detected in filtered aquifer tube samples (10 samples). All zinc concentrations in unfiltered samples and MDLs are less than the ESL of 90 µg/L.

Pore Water. Zinc was detected in all two unfiltered pore water samples (100 percent frequency) at concentrations of 2.2 and 2.3 µg/L. Zinc concentrations in unfiltered samples are less than the ESL of 90 µg/L.

Seep/Spring. Zinc was detected in all 16 unfiltered seep/spring samples (100 percent frequency). Zinc concentrations in unfiltered samples ranged from 1.8 to 282 µg/L. Of the 16 detected results, one sample was reported with a concentration greater than the ESL of 90 µg/L. Zinc was detected at location 100-H Spring 145-1 (282 µg/L).

Zinc was detected in six of 10 filtered seep/spring samples (60 percent frequency) with concentrations ranging from 1.5 and 4.6 µg/L. Zinc concentrations in filtered samples are less than the ESL of 90 µg/L.

Surface Water. Zinc was detected in all five unfiltered surface water samples (100 percent frequency). Zinc concentrations in unfiltered samples ranged from 2.1 to 7,500 µg/L. Of the five detected results, three samples were reported with concentrations greater than the ESL of 90 µg/L. Zinc was detected at location 100-H Area (7,500, 980,, and 510 µg/L).

L3.4 Identification of Contaminants of Interest – Riparian Soil

Contaminants of interest were identified using the same process that was used for water.

L3.4.1 Apply Exclusion Criteria

The analytes in riparian soil that do not have plant/invert screening level are summarized in Tables L-47 and L-48 for the 100-D Area and 100-H Area, respectively. Analytes that do not have a wildlife screening level are summarized in Tables L-49 and L-50 for the 100-D Area and 100-H Area, respectively. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum MDLs, are also provided in Tables L-47 through L-50.

L3.4.2 Identify Nondetected Analytes

Analytes that were not detected in riparian soil samples and have plant/invertebrate soil ESLs are summarized in Tables L-51 and L-52 for the 100-D Area and 100-H Area, respectively. Analytes that were not detected but have wildlife ESLs are summarized in Tables L-53 and L-54 for the 100-D Area and 100-H Area, respectively. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum MDLs, are also provided in Tables L-51 through L-54.

L3.4.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs

A summary of the riparian soil analytes that do not exceed the lowest plant/invertebrate ESLs is provided in Tables L-55 and L-56 for the 100-D Area and 100-H Area, respectively. A summary of the riparian soil analytes that do not exceed the lowest wildlife ESLs is provided in Tables L-57 and L-58 for the 100-D Area and 100-H Area, respectively. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum MDLs are also provided in Tables L-55 through L-58.

L3.4.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs

This step identifies analytes with maximum concentrations greater than their plant/invert or wildlife ESLs.

L3.4.4.1 100-D Area

A summary of the riparian soil analytes that exceed the lowest plant/invertebrate ESLs is provided in Table L-59. As shown in Table L-59, thallium is greater than the plant/invertebrate ESL values.

Thallium was measured in two of 15 riparian soil samples (three MIS locations) with concentrations ranging between 0.99 and 1.1 mg/kg. Thallium concentrations measured in riparian soil are greater than the Hanford Site 90th percentile background value of 0.19 mg/kg.

A summary of the riparian soil analytes that exceed the lowest wildlife ESLs is provided in Table L-60. As shown in Table L-60, aluminum and vanadium are greater than wildlife ESL values.

Aluminum was measured in 15 riparian soil samples (three MIS locations) with concentrations ranging between 4,560 mg/kg and 8,650 mg/kg. Aluminum concentrations measured in riparian soil are less than the Hanford Site 90th percentile background value of 11,800 mg/kg. In addition, aluminum is generally more bioavailable and toxic at low pHs (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55]). The Eco-SSLs for aluminum, (*Ecological Soil Screening Level for Aluminum: Interim Final* [OSWER Directive 9285.7-60]), identified potential toxicity in soils when the pH is 5.5 or less. All measurements of soil pH in the River Corridor are greater than the 5.5 threshold. Therefore, concentrations of aluminum are not likely bioavailable for uptake.

Vanadium was measured in 15 riparian soil samples (three MIS locations) with concentrations ranging between 42 mg/kg and 60 mg/kg. Vanadium concentrations measured in riparian soil are less than the Hanford Site 90th percentile background value of 85 mg/kg.

A discussion of the ecological risk considerations associated with this result is presented in Section L4.

L3.4.4.2 100-H Area

A summary of the riparian soil analytes that exceed the lowest wildlife ESLs is provided in Table L-61. No analytes were reported with concentrations exceeding the lowest plant/invertebrate ESLs. As shown in Table L-61, aluminum, bis(2-ethylhexyl) phthalate, and vanadium are greater than the wildlife ESL value.

Aluminum was measured in 21 riparian soil samples (four MIS samples) with concentrations ranging between 10,500 and 10,400 mg/kg. Aluminum concentrations measured in riparian soil are less than the Hanford Site 90th percentile background value of 11,800 mg/kg. In addition, aluminum is generally more bioavailable and toxic at low pHs (*Guidance for Developing Ecological Soil Screening Levels* [OSWER Directive 9285.7-55]). The Eco-SSLs for aluminum (*Ecological Soil Screening Level for Aluminum: Interim Final* [OSWER Directive 9285.7-60]), identified potential toxicity in soils when the pH is 5.5 or less. All measurements of soil pH in the River Corridor are greater than the 5.5 threshold. Therefore, concentrations of aluminum are not likely bioavailable for uptake.

Bis(2-ethylhexyl)phthalate was detected in 20 of 21 riparian soil samples with concentrations ranging between 0.02 and 0.66 mg/kg. Although the maximum detected concentrations of BEHP are greater than the ESL of 0.14 mg/kg, Bis(2-ethylhexyl), phthalates are considered to be common laboratory contaminants and are not related to the Hanford Site.

Vanadium was measured in 21 riparian soil samples (four MIS samples) with concentrations ranging between 34 and 55 mg/kg. Vanadium concentrations measured in riparian soil are less than the Hanford Site 90th percentile background value of 85 mg/kg.

A discussion of the ecological risk considerations associated with this result is presented in Section L4.

L3.5 Identification of Contaminants of Interest – Nearshore Sediment

Contaminants of interest were identified using the same process that was used for water.

L3.5.1 Apply Exclusion Criteria

The analytes in sediment that do not have ecological screening level are summarized in Tables L-62, L-63, and L-64 for the 100-D Area, horn area, and 100-H Area, respectively. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum MDLs are also provided in Tables L-62 through L-64.

L3.5.2 Identify Nondetected Analytes

Analytes that were not detected in sediment samples are summarized in Tables L-65, L-66, and L-67 for the 100-D Area, horn Area, and 100-H Area, respectively. Sampling dates and minimum and maximum MDLs are also provided in Tables L-65 through L-67.

L3.5.3 Identify Analytes with Maximum Detected Concentrations Less Than ESLs

A summary of the sediment analytes that do not exceed the sediment lower threshold ESLs is provided in Tables L-68, L-69, and L-70 for the 100-D Area, horn area, and 100-H Area, respectively. Sampling dates, minimum and maximum detected concentrations, and minimum and maximum MDLs are also provided in Tables L-68 through L-70.

L3.5.4 Identify Analytes with Maximum Detected Concentrations Greater Than ESLs

This step identifies analytes with maximum concentrations greater than sediment lower threshold ESLs.

L3.5.4.1 100-D Area

Table L-71 summarizes the sediment analytes that exceed the sediment lower threshold ESLs and shows that concentrations of three analytes—antimony, iron, and silver—are greater than their sediment lower threshold ESLs. These three analytes are subsequently compared to the sediment upper threshold ESLs, as shown in Table L-72. Table L-72 shows that antimony and sliver exceed the upper threshold ESLs.

Antimony was detected in 14 of 30 samples with a maximum concentration of 6.8 mg/kg. Antimony concentrations were reported greater than the sediment ESL of 0.6 mg/kg in 13 sediment samples.

Silver was detected in two of 17 samples at concentrations of 0.8 and 5.3 mg/kg. Of the two detects, one sediment sample was reported with a silver concentration greater than the upper threshold ESL of 1.7 mg/kg.

L3.5.4.2 Horn Area

No analytes were reported in the horn area with sediment concentrations exceeding the sediment lower threshold ESLs.

L3.5.4.3 100-H Area

A summary of the sediment analytes that exceed the sediment lower threshold ESLs is provided in Table L-73. Table L-73 shows that concentrations of phosphorus are greater than their sediment lower threshold ESLs:

The analytes listed above that exceed the lower threshold ESL are subsequently compared to the upper threshold ESL; the results of this comparison are shown in Table L-74. Table L-74 shows that no analytes exceed the upper threshold ESLs.

A discussion of the ecological risk considerations associated with this result is presented in Section L4.

L3.6 Data Evaluation Summary

A range of inorganic and radionuclide contaminants were detected in near-river groundwater samples collected from the 100-HR-3 OU. In many cases, these contaminants also could be detected in aquifer tube, pore water, spring/seep, and surface water samples. In most cases, the analytical results that were most relevant to assessing aquatic water quality (that is, from filtered analyses) were at concentrations below aquatic criteria. In other cases where concentrations higher than aquatic criteria were observed, these results were associated with analytical data quality issues such as presence of contamination in blank samples, or elevated detection limits relative to the criteria.

The analytical results addressed in this evaluation did not provide evidence that contaminants from 100-D/H OUs soils or groundwater or associated with 100-D/H operations evaluated in this appendix have potentially been discharged to riparian or nearshore media or to the Columbia River. A more detailed discussion of potential ecological risks in the context of abiotic and biotic media evaluations and potential contributions to these risks from the Hanford Site is presented in Section L4.

L4 Summary of Ecological Risks

Ecological risks in riparian and nearshore areas were assessed as part of the RCBRA (DOE/RL-2007-21). This risk assessment chapter incorporates the results from the assessment of ecological risks in the riparian and nearshore areas based on the data evaluation and calculations performed in the RCBRA (DOE/RL-2007-21).

The RCBRA (DOE/RL-2007-21) evaluated risks to an array of assessment endpoints using multiple measures of exposure, effect, and ecosystem/receptor characteristics at representative nearshore study sites. The study sites were selected to represent locations that may be adjacent to or directly affected by known contaminated media (groundwater seeps and springs, soil, sediment).

L4.1 Risks to Terrestrial Plants

As shown in Table 5-61 of the RCBRA (DOE/RL-2007-21), central tendency estimates (CTE) of some COPECs in riparian soil collected across the Hanford Reach (that is, estimate of central tendency across both 100 Areas and 300 Area) exceeded literature-based plant soil screening level concentrations developed for the RCBRA (DOE/RL-2007-21), indicating that effects in plants warranted further evaluation. CTEs for arsenic, chromium, lead, vanadium, and zinc in riparian soil were greater than SSLs; in the 100-D/H riparian study areas (2a) concentrations of arsenic, vanadium, and zinc were higher than the benchmark value for protection of terrestrial plants (RCBRA [DOE/RL-2007-21], Tables 5-61). SSLs are literature-based values compiled from state and federal criteria and were initially presented in both the RCBRA (DOE/RL-2007-21) and *Action Memorandum for the Non-Time-Critical Removal Action for the Northern Part of the BC Controlled Area (UPR-200-E-83)* (DOE/RL-2008-21) and in *Tier 1 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site* (CHPRC-00784). For risk driving inorganics, bioassays were collected using a representative native plant species (Sandberg's bluegrass [*poa secunda*]) to develop site specific toxicity thresholds. These refined values were presented in the RCBRA (DOE/RL-2007-21) and used to establish plant PRGs. Additional bioassays were conducted in 2011 on the same species with a broader concentration gradient of inorganic constituents to further refine toxicity thresholds and establish PRGs as described in *Tier 2 Terrestrial Plant and Invertebrate Preliminary Remediation Goals (PRGs) for Nonradionuclides for Use at the Hanford Site* (ECF-HANDFORD-11-0158). The organic SSLs and inorganic PRGs were identified as the ESLs presented in this RI/FS as summarized in Table L-4.

Thallium concentrations were detected at one location in the 100-D riparian study sites in exceedance of the Hanford Site-specific ESLs (Table L-4). However, Table 5-29 of the RCBRA (DOE/RL-2007-21), indicates that thallium concentrations were below background. Measurements of all other chemicals within the riparian soils of the 100-D and 100--H OUs were below soil ESLs. Also, other lines of evidence obtained through seven different measures in bioassay testing indicate that COPECs may not adversely affect plants at riparian sites, including those at the rare plant sites which performed better in bioassays compared with reference soils. Bioassays showed no significant differences in plant seed germination, root length, stem height, root biomass, or shoot biomass between riparian study sites and reference sites. Some chemicals were detected in plant tissues, but the concentrations of the chemicals were statistically different between riparian study sites and reference site concentrations for only four chemicals: barium, copper, thallium, and zinc (RCBRA [DOE/RL-2007-21], Table 5-32). Similar to the upland plant data, chemical concentrations found in riparian plant tissues did not correlate to the those in riparian soil. Therefore, although soil concentrations are greater than plant SSLs for some COPECs, the weight attributed to this line of evidence is low, and hazard quotients based on SSLs do not overwhelm the other lines of evidence that do not indicate risks to plants in riparian soils. While several analytes were detected in plant tissue during the RCBRA (DOE/RL-2007-21), and statistical differences between riparian study area sites and reference site concentrations were noted, there were no statistically significant relationships of chemical concentrations in plant tissue and soil. Therefore, there are no chemicals in the 100-D or 100-H Area riparian soils that would warrant further evaluation in the FS based on risks to terrestrial plants.

L4.2 Risks to Aquatic Plants

Potential effects on aquatic plants were evaluated through comparison of sediment and pore water concentrations to screening levels developed for the RCBRA (DOE/RL-2007-21) and CRC (DOE/RL-2010-117) and results of a bioassay in sediment (RCBRA [DOE/RL-2007-21]). The combined pore water and sediment RCBRA (DOE/RL-2007-21) COECs were identified as cadmium, total chromium, Cr(VI), manganese, and uranium warranting further evaluation for potential effects on aquatic plants, as noted in Section 8.5.1.1 (RCBRA [DOE/RL-2007-21]). The Executive Summary of the CRC (DOE/RL-2010-117) identified the final COECs for pore water and sediment within 100-D/H as aluminum, total chromium, Cr(VI), lead, nickel, and nitrate.

Laboratory bioassays (that is, toxicity tests) were conducted with field-collected sediments. Some significant relationships were determined with observed response within aquatic plant toxicity tests in association with confounding factors and some chemicals. Additionally, there were clear measures of exposure (that is, accumulation into plants), primarily for inorganic COPECs that were detected in pore water and sediment. However, of the significant relationships determined, none was with COPECs for which pore water concentrations were greater than aquatic plant benchmarks. Further, no risks to aquatic plants were noted based on toxicity testing. Though the analysis represents only one season of sampling and analysis, the weight of the available data does not suggest risk to aquatic plants.

For the 100-D and 100-H Area nearshore sampling sites, antimony and silver were detected in sediment at concentrations greater than the upper threshold sediment biota ESL (Tables L-72 through L-74). However, the RCBRA (DOE/RL-2007-21) and CRC (DOE/RL-2010-117) did not identify these analytes as COECs for aquatic plants, so additional evaluation for risks to aquatic plants is not warranted for these chemicals. These sediment COPECs are discussed in more detail, below, with respect to risks to aquatic invertebrates.

From the 100-D and 100-H nearshore sampling sites (Figure L-6), only the pore water concentrations of Cr(VI), in two of eight unfiltered samples were greater than the chronic ambient water quality criteria (Table L-38). No other chemicals in pore water samples from the 100-HR-3 Groundwater OU exceeded

water ESLs. The 100-D/H nearshore water data are further discussed below and in Section 3.3.4 of this Appendix. The RCBRA (DOE/RL-2007-21) and CRC (DOE/RL-2010-117) pore water COECs, as well as 100-D/H nearshore pore water COPECs are discussed in more detail, below, with respect to potential contributions from the 100-BC riparian area to risks to aquatic plants in the Columbia River.

L4.2.1 100-D Area Source Evaluation

The following section discusses whether the 100-D area may be a source contributing to risks to aquatic plants in the nearshore environment. Supporting data are found in the Appendix L tables. Aquatic plant COECs identified in pore water from the CRC (DOE/RL-2010-117) and RCBRA (DOE/RL-2007-21) are discussed below in correlation to data collected for the 100-D Area.

Aluminum - Concentrations of aluminum were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-HR-3, 100-BC-5, and 300-FF-5 OUs. Concentrations within the 100-D area filtered aquifer tubes, seeps, and groundwater samples were below the ESL (Tables L-41). Filtered pore water was not analyzed for aluminum; however, unfiltered pore water samples were detected below the ESL. Thus, aluminum within the 100-HR-3 Groundwater OU wells near 100-D are not contributing to concentrations of aluminum observed in pore water at locations within the reach of the Columbia River adjacent to or downstream from the 100-D nearshore area.

Total Chromium - Concentrations of total chromium were elevated in pore water presented in CRC (DOE/RL-2010-117) for the 100-HR-3 OU, but were less than the ESL for pore water samples collected in the 100-D Area (Tables L-28). However, filtered total chromium samples were detected above the ESL in aquifer tubes (17 of 62 samples), seeps (one of eight samples), and groundwater wells (20 of 37 samples). While Cr(VI) concentrations are elevated in the same media, mean, and maximum concentrations of Cr(VI) are well below those of total chromium. Therefore, given the clear pathway from groundwater to the aquifer tubes and ultimately pore water, there is a potential pathway of total chromium originating from the 100-HR-3 Groundwater OU wells near 100-D that warrants further evaluation in the FS.

Cr(VI) - Concentrations of Cr(VI) were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21) and CRC (DOE/RL-2010-117) for the 100-BC-5 OUs, 100-HR-3, 100-FR-3, 200-PO-1, 100-KR-3 OUs. Within 100-D, nearshore filtered samples exceeded the ESL in pore water (two of eight samples), aquifer tubes (17 of 62 samples), seep (one of one sample), and groundwater wells (84 of 103 samples). Given the clear pathway from groundwater to the aquifer tubes and ultimately pore water, there is a clear pathway of Cr(VI) originating from the 100-HR-3 Groundwater OU wells near 100-D that warrants further evaluation in the FS.

Lead - Concentrations of lead were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-HR-3, 100-BC-5, 200-PO-1, and 300-FF-5 OUs, but were less than the ESL for all pore water samples collected in the 100-D Area (Table L-18). Filtered concentrations within the 100-D aquifer tube, seep, and groundwater samples were also below the ESL. Thus, the 100-D Source OUs are not contributing to concentrations of lead observed in pore water at locations within the reach of the Columbia River downstream from points of entry from the 100-D OUs.

Manganese - Concentrations of manganese were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21), but were less than the ESL for all sediment and pore water samples collected in the 100-D Area (Tables L-28 and L-72). Filtered concentrations within the 100-D seep and groundwater samples were below the ESL. For filtered aquifer tubes, one of 62 samples exceeded the ESL, which does not suggest a clear trend that the 100-D area is a source. Thus, the 100-HR-3 groundwater OU near 100-D are not contributing to concentrations of manganese observed in pore water and sediment indicative of risk to aquatic plants in the Columbia River Reach adjacent to or downstream from the 100-D area.

Nickel – Concentrations of nickel were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-HR-3 OU, but were less than the ESL for all pore water, seep, and surface water samples collected in the 100-D Area (Table L-41). The ESL was exceeded in aquifer tubes (8 of 62 filtered samples and 10 of 64 unfiltered samples) and groundwater (2 of 37 filtered samples and 3 of 36 unfiltered samples), which does not suggest 1–D to be the source. Thus, it appears that the 100-D Source OU is not contributing to concentrations of nickel.

Nitrate – Concentrations of nitrate were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-NR-2, 100-HR-3, and 300-FF-5 OUs, but was not sampled in pore water in the 100-D nearshore area. Within, 100-D, nearshore samples exceeded the ESL in unfiltered groundwater wells (73 of 76 samples) and unfiltered aquifer tubes (110 of 207 samples) (Table L-41). For the purposes of ecological risk assessment, nitrate was identified as a potential risk in the CRC (DOE/RL-2010-117) due to one anomalously high detection that exceeded the LOEC screening value identified at 37.64 mg/L. However, this value is actually an LC10 (effect noted in just 10 percent of organisms) which is an effect level more sensitive than commonly used. More importantly, as suggested by reference concentrations as high as 20.7 mg/L, nitrate is a common constituent in the Columbia River and its tributaries, a reflection of the agricultural land use prevalent in the area. Thus, nitrate within the 100-D Source OUs is identified as a COPEC within the reach of the Columbia River adjacent to the 100-D Area.

Uranium – While concentrations of uranium were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21), concentrations within the 100-D riparian and nearshore aquatic media were below water quality criteria. Thus, uranium within the 100-HR-3 groundwater OU wells near 100-D are not contributing to concentrations of uranium observed in pore water at locations within the reach of the Columbia River.

L4.2.2 100-H Area Source Evaluation

The following section discusses whether the 100-H Area may be a source contributing to risks to aquatic plants in the nearshore environment. Supporting data are found in the Appendix L tables. Aquatic plant COECs identified in pore water from CRC (DOE/RL-2010-117) and RCBRA (DOE/RL-2007-21) are discussed below in correlation to data collected for the 100-H Area.

Aluminum - Concentrations of aluminum were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-HR-3, 100-BC-5, and 300-FF-5 OUs. Filtered concentrations within the 100-H Area filtered seeps and groundwater samples were below the ESL. Filtered pore water was not analyzed for aluminum; however, unfiltered pore water samples were detected below the ESL. Thus, evidence is not sufficient to suggest aluminum within the 100-BC groundwater OU wells near 100-H are contributing to concentrations of aluminum observed in pore water at locations within the reach of the Columbia River adjacent to or downstream from the 100-H nearshore area.

Total Chromium - Concentrations of total chromium were elevated in CRC (DOE/RL-2010-117) for the 100-HR-3 OU, but were less than the ESL for all pore water, aquifer tubes, and seep samples collected in the 100-H Area. However, filtered total chromium samples were detected above the ESL in groundwater wells (seven of 65 samples). However, as shown in Table L-46, Cr(VI) concentrations in the same media are nearly equal and for filtered groundwater actually exceed those of total chromium, thereby suggesting that the majority of the measured total chromium is in the form of Cr(VI). Given the elevated groundwater concentrations, there is a potential pathway of total chromium originating from the 100-HR-3 Groundwater OU wells near 100-H that should be evaluated further in the FS.

Cr(VI) - Concentrations of Cr(VI) were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21) and in CRC (DOE/RL-2010-117) for the 100-BC-5 OUs, 100-HR-3, 100-FR-3, 200-PO-1, 100-KR-4, and 100-NR-2. Of the key plume contaminants in the reach of the Columbia River adjacent to 100-D/H, Cr(VI) had concentrations of ecological relevance in some nearshore media. As shown in Table 6-43 of the RCBRA (DOE/RL-2007-21), statistical tests showed that the concentrations of Cr(VI) were greater than reference pore water concentrations. All pore water concentrations were below the ESL in the 100-H Area, and seep data were not collected. However, nearshore filtered samples exceeded the ESL in aquifer tubes (41 of 105 samples) and groundwater wells (76 of 111 samples). Given the elevated groundwater and aquifer tube concentrations, there is a potential pathway of Cr(VI) originating from the 100-HR-3 Groundwater OU wells near 100-H, which may contribute to concentrations in the Columbia River adjacent and downstream from the 100-HR-3 Groundwater OU that warrants further evaluation in the FS.

Lead - Concentrations of lead were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-HR-3, 100-BC-5, 200-PO-1, and 300-FF-5 OUs, but were less than the ESL for all pore water samples collected in the 100-H Area (Table L-18). Filtered concentrations within the 100-H aquifer tube, seep, and groundwater samples were also below the ESL. Thus, the 100-HR-3 Groundwater OU wells near 100-H are not contributing to concentrations of lead observed in pore water at locations within the reach of the Columbia River downstream from points of entry from the 100-H OUs.

Manganese - Concentrations of manganese were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21), but were less than the ESLs for all pore water samples collected in the 100-H Area. Filtered concentrations within the 100-H aquifer tubes, seep, and groundwater samples were below the ESL. Thus, the 100-HR-3 Groundwater OU wells near 100-H are not contributing to concentrations of manganese observed in pore water and sediment in the Columbia River Reach adjacent to or downstream from the 100-H Area.

Nitrate - Concentrations of nitrate were elevated in pore water samples presented in the CRC (DOE/RL-2010-117) for the 100-NR-2, 100-HR-3, and 300-FF-5 OUs, but were not sampled in pore water in the 100-H nearshore area. Within, 100-H, nearshore samples exceeded the ESL in unfiltered groundwater wells (95 of 115 samples), and unfiltered aquifer tubes (44 of 68 samples) (Table L-46). For the purposes of ecological risk assessment, nitrate was identified as a potential risk in the CRC (DOE/RL-2010-117) because of one anomalously high detection that exceeded the LOEC screening value identified at 37.64 mg/L. However, this value is actually an LC10 (effect noted in just 10 percent of organisms), which is an effect level more sensitive than commonly used. More importantly, as suggested by reference concentrations as high as 20.7 mg/L, nitrate is a common constituent in the Columbia River and its tributaries, a reflection of the agricultural land use prevalent in the area. Thus, nitrate within the 100-H Source OUs is identified as a COPEC within the reach of the Columbia River adjacent to the 100-H.

Uranium – While concentrations of uranium were elevated in pore water samples presented in the RCBRA (DOE/RL-2007-21), concentrations within the 100-H riparian and nearshore aquatic media were below water quality criteria. Seven of 28 calculated total uranium unfiltered seep samples exceeded the ESL (Table L-46). However, the ESL is not specifically for aquatic plants. The ESL for aquatic plants in the RCBRA (DOE/RL-2007-21) was 14 µg/L, and all measurements were below 14 µg/L. Thus, uranium within the 100-HR-3 groundwater OU wells near 100-H are not contributing to concentrations of uranium observed in pore water at locations within the reach of the Columbia River.

L4.3 Risks to Terrestrial Invertebrates

Thallium concentrations were detected at two locations in the 100-D riparian study sites in exceedance of Hanford Site-specific soil ESLs (Table L-59). However, Table 5-29 of the RCBRA (DOE/RL-2007-21), indicates that thallium concentrations were below background; thus is not a source contributing to risks to terrestrial invertebrates. Measurements of all other chemicals within the riparian soils of the 100-D and 100-H Source OUs were below soil ESLs.

Concentrations of chromium, mercury, TPH-diesel, and zinc in riparian soil exceeded benchmarks developed for the RCBRA (DOE/RL-2007-21) that are protective of terrestrial invertebrates; in the 100-D and 100-H riparian study areas (2f, Rip 1, Rip 2, Rip 3, Rip 8, Rip 9, Rip 10) concentrations of chromium, mercury, and zinc were higher than the benchmark value for protection of terrestrial invertebrates (RCBRA [DOE/RL-2007-21], Tables 5-69 and 5-70). However, none of the concentrations were above Hanford Site-specific ESLs protective of terrestrial invertebrates (Table L-59).

Terrestrial invertebrate tissue concentrations, which provide an indication of contaminant uptake and bioavailability, were measured at River Corridor study sites and reference locations and some, but not all COPECs were detected in terrestrial invertebrates. Statistical differences were found between RCBRA (DOE/RL-2007-21) terrestrial invertebrate tissue concentrations for some chemicals between study site and reference site soils. However, this line of evidence was ranked low in the RCBRA (DOE/RL-2007-21) because of the lack of detections in invertebrate tissue for riparian COPECs and the possibility of bias due to sample collection methods. Statistical differences in tissue concentrations of mercury and zinc in terrestrial invertebrates were noted between River Corridor and reference study sites; this relationship is based on data across the entire River Corridor and should not be inferred as a relationship that is specific for 100-D or 100-H. However, there is insufficient evidence for chemicals in general of a correlation between tissue concentrations in terrestrial invertebrates and concentrations in soil (RCBRA [DOE/RL-2007-21]). Based on this analysis, no chemicals in riparian soil for terrestrial invertebrates warrant further evaluation in the FS because of risks to terrestrial invertebrates.

L4.4 Risks to Aquatic Invertebrates

The primary lines of evidence used to evaluate risks to aquatic invertebrates are field surveys, the results of bioassays, and comparison of sediment and water concentrations to benchmarks, such as ESLs.

L4.4.1 Abiotic Media Concentrations Compared to Literature Values

The final COECs for pore water in CRC (DOE/RL-2010-117) within the 100-HR-3 OU were identified as aluminum, total chromium, Cr(VI), lead, nickel, and nitrate, as noted in the Executive Summary of the CRC (DOE/RL-2010-117). Pore water concentrations at study sites were greater than chronic water standards or criteria for three COECs (Cr(VI), manganese, and uranium) (RCBRA [DOE/RL-2007-21], Sections 8.5.1.1 and 8.5.1.2). However, there are significant uncertainties relative to any of the conclusions based on pore water sampling because these abiotic measurements represent a single point measurement within a dynamic river system, with daily and seasonal fluctuations and flow volumes that can shift the composition of the substrates that were sampled. Thus, exceedances should not be ignored, as they can be indicative of exposure an levels presenting a risk. However, because of the uncertainty in the representativeness of the measurements due to the dynamic environment, the exceedances should be considered along with other data that identifies whether there is in fact an ongoing source of the measurements. The interpretation of pore water results as an indication of potential adverse effects to aquatic invertebrates is the same as that for aquatic plants, given that the ESLs are protective of both plants and aquatic invertebrates; only total chromium, Cr(VI), and nitrate in the 100-HR-3 Groundwater

OU, which represent potential sources for pore water concentrations that exceed water quality criteria, warrant further evaluation in the FS.

The RCBRA (DOE/RL-2007-21) identified three COECs (cadmium, total chromium, and manganese) in sediment for the River Corridor as a whole (RCBRA [DOE/RL-2007-21], Sections 8.5.1.1 and 8.5.1.2). Total chromium and Cr(VI), in sediment were also identified as COECs in the CRC (DOE/RL-2010-117). For sediment samples collected within the 100-D and 100-H nearshore (Tables L-71 through L-74), concentrations were greater than upper threshold ESLs for two COPECs (antimony and silver). Given the uncertainty with representativeness mentioned above, a more detailed discussion of each of these six COECs/COPECs from the RCBRA (DOE/RL-2007-21), CRC (DOE/RL-2010-1117), and 100-D/H nearshore sediment (Appendix L) is presented below.

Antimony – Antimony was detected in fourteen of thirty samples within the 100-D nearshore sediments. The maximum detected (6.8 mg/kg) concentration exceeded the upper threshold ESL (0.6 mg/kg); however, the sample was collected in 1992 at the subsurface greater than 15 cm (6 in.) below the surface and outside the biologically active zone for benthic organisms and was flagged with qualifiers signaling it was below the MDL (RCBRA SAP [DOE/RL-2005-42]). More recent removal verification sampling (2011) included twelve shoreline sediment samples from waste site 100-D-66 and one from 100-D-8. The sample from 100-D-8 was below the upper threshold. The 100-D-66 samples had detected levels of antimony between 0.94 and 1.5 mg/kg and above the upper threshold. These samples were collected at an average depth of one meter below the ground surface, and below the biologically active zone for aquatic receptors. The 100-D-8 and 100-D-66 removal areas were subsequently covered with clean fill material on the same day as removal to avoid fish entrapment. Though the verification sample concentrations exceed the threshold from Ecology Publication 03-09-088, there was no recommendation for a cleanup standard for antimony when Washington adopted the results of a 2011 publication (Ecology Publication 11-09-05) as its state cleanup standards (WAC 173-204-563) due to known issues with analytical methods, a high level of false positives, and the resulting screening level being below background. The 0.6 mg/kg threshold included for initial screening in this evaluation is based upon *Chironomus* growth test results. Thresholds from other tests in the same report (ecology Publication 03-09-088) include *Hyalella* mortality (4.4 mg/kg), *Chironomus* mortality (1.9 mg/kg), and a microtox luminescence test (>5.1 mg/kg). Each of these thresholds as well as those from the 1997 apparent effects threholds (AET) from Puget Sound (microtox of 3 mg/kg and *Hyalella* at 64 mg/kg) are all above the detected levels at 100-D-66. Given the depth of the samples, the small size of the site, and the concentrations relative to a number of toxicity test thresholds, the likelihood of adverse effects to aquatic invertebrates in this vicinity is low, and impact beyond the small footprint would be negligible and unlikely. Table 6-40 in the RCBRA (DOE/RL-2007-21) reports that there were no detections of antimony in the RCBRA (DOE/RL-2007-21) nearshore study sites across the Hanford Reach. None of the detected concentrations of antimony in groundwater, aquifer tube, seep, or pore water analysis were above background concentrations at the Hanford Site. Table 5-29 of the RCBRA (DOE/RL-2007-21) indicates that antimony concentrations across the Hanford Site riparian soils were not statistically different from riparian reference soil concentrations. Therefore, antimony is not considered a COPEC for the nearshore environment because there are no environmentally relevant concentrations of antimony in RCBRA (DOE/RL-2007-21) nearshore sediment, a low likelihood of adverse effects at 100-D-66, and no detections of antimony in other 100-D and 100-H sediments, and no difference in riparian soil concentrations relative to reference sediment concentrations for antimony. There is no complete or significant pathway for observed antimony concentrations in sediment from the 100-D or H Source OUs or the 100-HR-3 Groundwater OU.

Cadmium – Cadmium was detected in nine of 22 samples within the 100-D, 100-H, and the horn area nearshore sediment but measured less than the lower threshold ESL in all samples (Tables L-68 through

L-70). Table 5-29 of the RCBRA (DOE/RL-2007-21) indicates that cadmium concentrations across the Hanford Site riparian soils are greater than riparian reference soil concentrations. For the 100-D, 100-H, and the horn area riparian soils, all but two of the detected concentrations of cadmium (0.4 to 2.7 mg/kg) were lower than the maximum sediment reference concentration (2.2 mg/kg) presented in Table 6-40 of the RCBRA (DOE/RL-2007-21). The closest riparian soil sample to the exceedance at B07NH1 is 0.9 mg/kg, which is less than the sediment concentration. The closest riparian soil sample to the exceedance at B07NG3 is Rip 9 with a concentration of 0.83 mg/kg, which is the sediment concentration. Cadmium was not detected in the groundwater, aquifer tube, or pore water samples collected from the 100-D and 100-H site, and none of the detected seep samples exceeded water quality criteria. Table 6-40 of the RCBRA (DOE/RL-2007-21) indicates that the detected nearshore sediment study site concentrations of cadmium are not greater than the reference site concentrations based on four different statistical tests. Cadmium is not considered a COPEC for the nearshore environment, as cadmium across the Hanford Reach was considered similar to background; 100-D, 100-H, and the horn area riparian study site soil concentrations are similar to or less than 100-H and horn area nearshore sediment concentrations (where ESL exceedances occurred); nearshore riparian soil concentrations are similar to or less than reference sediment concentrations; and there are no groundwater source contributions. There is no complete or significant pathway for observed cadmium concentrations in sediment from the 100-D, 100-H, and the horn riparian area.

Total Chromium – Total chromium was identified as a COEC for the 100-Area in the CRC (DOE/RL-2010-117) due to concentrations above a LOEC in three samples and in the RCBRA (DOE/RL-2007-21). Chromium was detected in 11 of 23 sediment samples in the 100-D, 100-H, and horn nearshore environment, with all concentrations below the screening level of 72 mg/kg published in *Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho* (Ecology Publication 11-09-054). The maximum detected riparian soil concentration from the source OUs was 51.6 mg/kg. The three samples identified in the CRC (DOE/RL-2010-117) above the cleanup level of 88 mg/kg (*Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho* [Ecology Publication 11-09-054]) range from 122 to 275 mg/kg and, thus, do not originate from the 100-D or 100-H riparian soils or nearshore sediments. As presented above in the detailed analysis of pore water, total chromium in groundwater is elevated above the ESL and background suggesting a potential source that could partition to sediments. However, as also described above, the majority of the total chromium in 100-H may be as Cr(VI). While it is not clear that chromium or Cr(VI) in groundwater from 100-D or 100-H is the source of elevated sediment measurements, remedial actions are under way for the 100-HR-3 groundwater plumes to address chromium and in particular Cr(VI) in groundwater. These actions should address any potential ongoing source from the 100-HR-3 groundwater OU that may be contributing to elevated chromium in sediments in the Columbia River.

Cr(VI) – Cr(VI) is a known site contaminant of concern and was detected in 31 of 117 sediment samples in the 100 Areas reach of the Columbia River as part of the CRC (DOE/RL-2010-117) ecological risk assessment with a maximum of 7.38 mg/kg. It was also detected in nearshore sediment samples collected for the RCBRA (DOE/RL-2007-21) at 0.92 mg/kg at 100-D (1 of 10 detects). It was not detected in one sample collected from 100-H nearshore sediments. With no substantial toxicological data available to evaluate the bulk sediment measurements, this contaminant was identified as a COPEC in both reports.

Although there are acknowledged groundwater plumes of Cr(VI) that could serve as a potential source to sediments, Cr(VI) does not persist in natural aquatic environments such as those present in the Columbia River. Oxidation of Cr+3 to Cr+6 has been observed in soil and sediment under oxidizing conditions (*Monitored Natural Attenuation of Inorganic Contaminants in Ground Water: Volume 2 – Assessment for Non-Radionuclides Including Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Nitrate, Perchlorate, and Selenium* [EPA/600/R-07/140]). *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Metal Mixtures (Cadmium, Copper, Lead,*

Nickel, Silver, and Zinc) (EPA-600-R-02-011) states that geochemical processes govern the reduction of Cr(VI) to Cr(III) in aquatic environments, and geochemical processes are critical to the attenuation of chromium in sediments. The presence of Cr(III) is strongly favored in natural waters and sediments because the concentrations of sediment constituents known to reduce Cr(VI) to Cr(III) generally far outweigh the concentrations of the few constituents known to oxidize Cr(III) to Cr(VI). Furthermore, once reduced, Cr(III) is very stable in aquatic environments and highly unlikely to oxidize to Cr(VI). Thus, chromium in sediments is more likely to be in its Cr(III) form than its Cr(VI) form ("Behavior of Chromium in Soils: V. Fate of Organically Complexed Cr(III) Added to Soil" [James and Bartlett, 1983]; "Chromium(iii) Oxidation by Delta-MnO_2 .1. Characterization" [Fendorf and Zasoski, 1992]; "Fractionation and Oxidation of Chromium in Tannery Waste- and Sewage-Sludge-Amended Soils" [Milacic and Stupar, 1995]; "The Reactivity of Seven Mn-oxides with Cr^{3+}aq: A Comparative Analysis of a Complex, Environmentally Important Redox Reaction" [Weaver and Hochella, 2003]).

More detail regarding the Cr(VI) in sediment and the environment within the Columbia River and particularly at groundwater upwelling locations is found in *Data Summary Report for the Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington* (WCH-398) and *Field Summary Report for the Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington: Collection of Surface Water, Pore Water, and Sediment Samples for Characterization of Groundwater Upwelling* (WCH-380).

Manganese – Manganese was identified as a COEC for sediment along the River Corridor (RCBRA [DOE/RL-2007-21]). Manganese was detected in all 22 samples within the 100-D/H and horn area nearshore sediments. All the detected concentrations were below the lower threshold ESL. This suggests effects are not likely. The maximum study site sediment concentration was 920 mg/kg at Sr6, which was not within the 100-D/H and horn areas (RCBRA [DOE/RL-2007-21]; Figure 8-34). Further, all manganese study sites' concentrations are rarely greater than the maximum reference site concentration. The groundwater/seep/pore water analysis showed no substantial concentrations of manganese related to the 100-D/H and horn areas. Thus, concentrations were not likely from suspended solids in groundwater. Manganese was detected in all 36 soil samples collected (Tables L-57 and L-58). Table 5-29 of the RCBRA (DOE/RL-2007-21) indicates that manganese concentrations across the Hanford Site riparian soils were not statistically different from riparian reference soil concentrations or background. There is no complete or significant pathway for observed manganese concentrations in sediment from the 100-D/H and horn areas riparian area.

Silver – Silver was detected in two of 22 samples within the 100-D, 100-H, and the horn area nearshore sediments. One detected concentration of silver exceeded the upper threshold ESL; however the sample was collected in 1992 at the subsurface greater than 15 cm (6 in.) below the surface and outside the biologically active zone for benthic organisms. Table 6-40 in the RCBRA (DOE/RL-2007-21) reports that silver sediment concentrations do not differ from reference sediments. Table 5-29 of the RCBRA (DOE/RL-2007-21) indicates that silver concentrations across the Hanford Site riparian soils were not statistically different from riparian reference or background soil concentrations. For the 100-D Area where sediment samples exceeded the ESLs, silver was not detected in pore water or seep samples and was below the chronic aquatic life criteria for all but two of 64 aquifer tube samples and four of 37 groundwater samples. Silver is not considered a COPEC for the nearshore environment because there are no environmentally relevant concentrations of silver in RCBRA (DOE/RL-2007-21) nearshore sediment, riparian soils do not differ from reference concentrations, and RCBRA (DOE/RL-2007-21) riparian study site soil concentrations are not greater than reference sediment concentrations for silver. There is no complete or significant pathway for observed silver concentrations in sediment from the 100-D/H and horn riparian areas.

L4.4.2 Direct Toxicity Measures

Risks to aquatic macroinvertebrates based on toxicity testing showed some relationships with confounding factors and some COPECs. Histopathology measures differed in study sites compared to reference sites; these measures also showed some negative relationships with COPECs. Sediment bioassays for the 100-D, 100-H, and the horn area showed a significant difference in survival of amphipods (*Hyalella azteca*) growth relative to reference sites. Likewise, survival and reproduction tests on water fleas in pore water showed no difference at sites representing 100-D, 100-H, and the horn area, relative to reference sites. Correlation between abiotic media chemistry and any observed differences in measured effects from both bioassays was conducted across the whole Hanford Reach. Mercury was the only COPEC with a significant correlation that showed a potential negative effect with a significant regression; however, mercury was below sediment ESLs in the 100-D, 100-H, and horn nearshore area. Clams were also monitored for survival. There was a statistical decrease in survival at study sites compared to reference sites, but there was no correlation of clam survival with COPECs. Together these measures do not indicate substrate concentrations were toxic. However, they do represent only a snapshot in time and do not represent all seasonal conditions and river stage fluctuations.

L4.4.3 Community Structure Measures

Key community metrics do not suggest that contaminant-related impacts to benthic macroinvertebrates are evident in aquatic study sites as a group, as evident by the comparison of EPT data from study sites relative to reference sites. Most of the aquatic community measures did not differ between the study sites and reference sites. There were exceptions among the large number of aquatic community measures evaluated; but the agreement among measures was weak, and the biological significance to populations is not evident.

L4.4.4 Measures of Exposure

Within the RCBRA (DOE/RL-2007-21), clear measures of exposure (accumulation), primarily for inorganic COPECs were detected in water, sediment, and tissues. There were no statistically significant correlations between COPEC concentrations in pore water or sediment with tissues of aquatic organisms, indicating a lack of significant COPEC bioaccumulation. Further, no tissue effect levels for COPECs in invertebrate tissue were exceeded.

Most histopathology measures of clams and mussels showed no significant differences between study sites and reference. While there were some exceptions, COPEC concentrations generally did not correlate with differences in histopathology measures.

L4.4.5 Weight of Evidence

As stated previously, both the abiotic and biotic measures collected for the RCBRA (DOE/RL-2007-21) represent only a snapshot in time and do not represent all seasonal conditions and river stage fluctuations. Abiotic measurements do exceed literature based screening values for some COPECs, and this line of evidence is generally given the lowest weight given the lack of site-specificity in the literature-based values. Although biological measures give a different perspective than the chemistry, given the limited dataset and the uncertainty with full representation of seasonal measurements, the results of the chemistry cannot be ignored.

Of the key groundwater plume contaminants investigated, total chromium, Cr(VI), and nitrate had concentrations of ecological relevance in the nearshore environment for the100-D, 100-H, and horn area. Total chromium, Cr(VI), and nitrate in groundwater in the 100-HR-3 Groundwater OU represents a potential ongoing source for pore water concentrations that exceed water quality criteria and, therefore,

warrants further evaluation in the FS. This conclusion is applicable to both aquatic invertebrates and amphibians.

L4.5 Risk to Riparian Wildlife

For riparian soils, field ecological measures of the small mammal community were developed as qualitative information on the status of these populations. Estimated dietary contaminant exposures and biological concentrations in bird or small mammal tissues are compared to ecological effects levels established for dietary ingestion or related to tissue residues. For selected COPECs (cadmium, chromium, lead, selenium, and polychlorinated biphenyls), measured tissue concentrations in small mammals trapped in River Corridor study sites were not greater than reference areas (RCBRA [DOE/RL-2007-21], Table 5-48), and were less than available tissue effect levels (RCBRA [DOE/RL-2007-21], Page 5-91). Dietary exposure to terrestrial birds and mammals estimated using wildlife exposure models, estimated for riparian concentrations across the River Corridor indicated potential exposure higher than lowest observed adverse effect level (LOAEL)-based SSL values for copper, selenium, vanadium, and zinc (RCBRA [DOE/RL-2007-21], Section 8.4.1.3). Only zinc was identified as a final COEC for riparian soil exposure to birds and mammals. However, concentrations of zinc in 100-D/H, although greater than Hanford Sitewide background (67.8 mg/kg) (RCBRA [DOE/RL-2007-21], Table 2-9) fall below the ESL and within range of the reference study sites (336 mg/kg) and, therefore, should not warrant further evaluation in the FS.

Most concentrations detected in riparian soils within the 100-D, 100-H, and horn area fell below ESLs (specifically SSLs and PRGs described earlier) and do not warrant further evaluation in the FS. Three chemicals within riparian soils had concentrations above wildlife soil ESLs: aluminum, bis(2-ethylhexyl)phthalate, and vanadium.

Aluminum – Aluminum concentrations were below background and within the reference study (RCBRA [DOE/RL-2007-21], Table 5-29). While all 100-D and 100-H Area samples were above the ESLs for birds and mammals, the EPA's EcoSSL for aluminum (*Ecological Soil Screening Level for Aluminum: Interim Final* [OSWER Directive 9285.7-60]) presents a clear discussion that toxicity is only identified in soils when the pH is 5.5 or less. PH of soils in the 100-D and 100-H Area are above 5.5; thus, aluminum toxicity to wildlife is not a concern.

Bis(2-ethylhexyl)phthalate – Two of the twenty samples analyzed for bis(2-ethylhexyl)phthalate exceeded the avian ESL. However, the ESL was derived using an unbound NOAEL. Thus, no effects were observed at the maximum concentration tested, and there were such limited data available that it is uncertain at what concentration effects in birds may be seen. Bis(2-ethylhexyl)phthalate is a common laboratory contaminant, and there is no significant Site use warranting this chemical as a constituent of significant concern. Given the lack of Site use and the fact that concentrations are below those estimated to pose a risk to other wildlife (mammals), toxic effects to avian wildlife at the concentrations measured are unlikely and require no further investigation.

Vanadium – The maximum detected concentrations of 60.1 and 55 mg/kg for 100-D and 100-H, respectively, were less than the Site background of 85 mg/kg. While the PRG was developed with a model using site-specific tissue data, it still included uncertainties. Thus, with concentrations being below background, potential toxic effects to wildlife are unlikely.

Within the RCBRA (DOE/RL-2007-21), information on dietary contaminant exposures were also compared to ecological effects levels for diet to assess risks to birds or mammals potentially exposed to contaminants in nearshore sediments, biota, and water. Only chromium was considered a final COEC.

However, the single study site with which this risk was associated is not within the 100-D, 100-H, or horn nearshore environment.

L4.6 Risk to Fish

No COECs in the RCBRA (DOE/RL-2007-21) or in the CRC (DOE/RL-2010-117) were identified for surface water exposures to fish.

The RCBRA (DOE/RL-2007-21) identified Cr(VI) pore water concentrations indicative of risk to fish and warranting additional consideration. The CRC (DOE/RL-2010-117) also indicated exceedances of water quality standards or criteria (aluminum, total chromium, Cr(VI), lead, nickel, and nitrate) in pore water from the 100-HR-3 OU. However, most other lines of evidence suggest that there is no unacceptable risk to fish in the Columbia River. In general across the River Corridor, fish were smaller (in length and mass) at study sites relative to reference sites. However, many factors either confound or contribute to the size of fish captured such as fishing pressure or ease of capture of the target size range. Correlation with capture size and chemical concentration or any other factor (for example, habitat and nutrient availability) was not possible since it was not considered as part of the original study design. No strong trends in fish histopathological were observed between those collected at study sites and those from reference site locations. No tissue COPECs were correlated with histopathological endpoints associated with adverse effects at study sites. No exceedances of tissue effects levels for nearshore aquatic COPECs measured in fish tissue. In addition, evidence of greater contaminant uptake in fish from study sites was not apparent for most COPECs and tissues.

There are significant uncertainties relative to any of the conclusions based on pore water sampling. Further, all of these abiotic measurements represent a single point measurement within a dynamic river system with daily and seasonal fluctuations and flow volumes that can shift the composition of the substrates that were sampled. Exceedances should not be ignored, as they can be indicative of exposure an levels presenting a risk. However, because of the uncertainty in the representativeness of the measurements due to the dynamic environment, the exceedances should be considered along with other data that identifies whether there is in fact an ongoing source of the measurements. The interpretation of pore water results as an indication of potential adverse effects to fish is the same as that for aquatic plants, given that the ESLs are protective of both plants and fish; only total chromium, Cr(VI), and nitrate in 100-HR-3 Groundwater OU in the 100-D, 100-H, and the horn area, which represents a potential source for pore water concentrations that exceed water quality criteria, warrants further evaluation in the FS. Other COPECs detected in pore water above ambient water criteria do not appear to be issues in groundwater or aquifer tubes suggesting that the 100-HR-3 Groundwater OU is not the source of observed elevated concentrations.

L5 Conclusions

The purpose for preparing this CSM was to address, on a reactor decision area basis, the potential for Hanford Site contaminants in soil or groundwater to migrate to riparian or nearshore areas at concentrations that could be of concern for ecological receptors. This CSM supplements the analysis of River Corridor-wide ecological risks presented in the ecological risk assessment of the RCBRA (DOE/RL-2007-21). The RCBRA (DOE/RL-2007-21) identified on a Sitewide basis some contaminants of ecological concern that warranted further evaluation. Based on the results of the further evaluation contained in this CSM, with the exception of total chromium and Cr(VI), detected concentrations of contaminants in riparian or nearshore groundwater, seeps, aquifer tubes, and pore water are not reliably detectable at levels of ecological concern, or are not associated with contaminated groundwater resulting from Hanford Site operations. For purposes of alternatives evaluation in the 100-D, 100-H, and horn area FS, total chromium, Cr(VI), and nitrate in the 100-HR-3 Groundwater OU should be considered the only COECs.

There are uncertainties in this evaluation related to analytical data quality. With the exception of most recently collected analytical data in groundwater, analytical methods had MDLs that were close to or higher than aquatic criteria; when methods with adequate detection limits are used, the results show that contaminant concentrations are less than aquatic criteria. In many cases where analytical results were higher than aquatic criteria, it was determined that the results were based on unfiltered samples. Unfiltered analytical results are inappropriate for comparison with aquatic criteria; in general, filtered analytical results were less than aquatic criteria. In some cases where concentrations were reported higher than aquatic criteria, further evaluation of the data revealed it was qualified because of the presence of blank contamination. The analytical detection limit considerations and data quality issues further support the conclusion that contaminant concentrations in water were not reliably detected above levels of ecological significance.

L6 References

40 CFR 131, "Water Quality Standards," *Code of Federal Regulations*. Available at: http://www.gpo.gov/fdsys/pkg/CFR-2010-title40-vol21/xml/CFR-2010-title40-vol21-part131.xml.

ANL, 2009, RESRAD-BIOTA for Windows, Version 1.5, Argonne National Laboratory, Argonne, Illinois. Available at: http://web.ead.anl.gov/resrad/home2/biota.cfm.

Atomic Energy Act of 1954, as amended, 42 USC 2011, Pub. L. 83-703, 68 Stat. 919. Available at: http://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/html/USCODE-2010-title42-chap23-divsnA.htm.

BCMOE, 1995, *Ambient Water Quality Criteria for Fluoride*, British Columbia Ministry of the Environment, British Columbia, Canada. Available at: http://www.env.gov.bc.ca/wat/wq/BCguidelines/fluoride/index.html.

BHI-00538, 1996, *100 Area River Effluent Pipelines Characterization Report*, Rev. 00, Bechtel Hanford, Inc., Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=DA06639804.

BHI-01141, 1998, *100 Area River Effluent Pipelines Risk Assessment*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

Blindow, Irmgrad, 1988, "Phosphorous Toxicity in *Chara*," *Aquatic Botany* 32(4):393-395.

Buchman, M.F, 2008, *NOAA Screening Quick Reference Tables*, NOAA OR&R Report 08-1, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration, Seattle, Washington. Available at: http://www.gesamp.org/data/gesamp/files/file_element/4a2a322c8acb2c26cc0234685eac71fa/SQuiRTs.pdf

Camargo, Julio A., Alvaro Alonso, and Annabella Salamanca, 2005, "Nitrate toxicity to aquatic animals: a review with new data for freshwater invertebrates," *Chemosphere* 58:1255-1267. Available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_2/2008/ref2426.pdf.

CHPRC-00784, 2011, *Tier 1 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site*, Rev. 0, CH2M HILL Plateau Remediation Company, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093652.

CHRPC-01311, 2011, *Tier 2 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site*, Rev. 0, CH2M HILL Plateau Remediation Company, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093653.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601, et seq., Pub. L. 107-377, December 31, 2002. Available at: http://epw.senate.gov/cercla.pdf.

Crommentuijn, T., M. Polder, D. Sijm, J. de Bruijn, and E. van de Plassche, 2000, "Evaluation of the Dutch Environmental Risk Limits for Metals by Application of the Added Risk Approach," *Environ. Toxicol. Chem.*19(6):1692-1701. Available at: http://onlinelibrary.wiley.com/doi/10.1002/etc.5620190628/pdf.

CRWQCB, 2007, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final, California Regional Water Quality Control Board, San Francisco Bay Region, Oakland, California. Available at: http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf.

DOE/EH-0676, 2004, *RESRAD-BIOTA: A Tool for Implementing a Graded Approach to Biota Dose Evaluation, User's Guide, Version 1*, ISCORS Technical Report 2004-02, U.S. Department of Energy, Washington, D.C. Available at: http://web.ead.anl.gov/resrad/documents/RESRAD-BIOTA_Manual_Version_1.pdf.

DOE/RL-92-12, 1992, *Sampling and Analysis of 100 Area Springs*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=D196090827.

DOE/RL-92-24, 2001, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Rev. 4, 2 vols., U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0096062. http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0096061.

DOE/RL-95-55, 1995, *Hanford Site Background: Evaluation of Existing Soil Radionuclide Data*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=E0041830.

DOE/RL-96-12, 1996, *Hanford Site Background: Part 2, Soil Background for Radionuclides*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=D1808987.

DOE/RL-96-17, 2009, *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, Rev. 6, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0095436.

DOE/RL-2004-37, 2005, *Risk Assessment Work Plan for the 100 Area and 300 Area Component of the RCBRA*, Rev. 2, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=DA01946743.

DOE/RL-2005-42, 2006, *100 Area and 300 Area Component of the RCBRA Sampling and Analysis Plan*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=DA04279469. http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=DA04279655.

DOE/RL-2007-21, 2012, *River Corridor Baseline Risk Assessment, Volume I: Ecological Risk Assessment*, Volume 1, Parts 1 and 2, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093215. http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093214.

DOE/RL-2008-21, 2008, *Action Memorandum for the Non-Time-Critical Removal Action for the Northern Part of the BC Controlled Area (UPR-200-E-83)*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0806050037.

DOE/RL-2008-46, 2009, *Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan*, Draft A, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0906110863.

DOE/RL-2008-46-ADD1, 2010, *Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan, Addendum 1: 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0084374.

DOE/RL-2010-11, 2010, *Hanford Site Groundwater Monitoring and Performance Report for 2009: Volumes 1 & 2*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0084237.

DOE/RL-2010-117, 2011, *Columbia River Component Risk Assessment, Volume I: Screening-Level Ecological Risk Assessment*, Volume I, Part 1, Draft A, Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093619.

DOE-STD-1153-2002, 2002, *A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota*, Module 1, "Principles and Application," Module 2, "Detailed Guidance," Module 3, "Methods Derivation," DOE Technical Standard, U.S. Department of Energy, Washington, D.C. Available at: http://www.doeal.gov/SWEIS/DOEDocuments/027%20DOE%20STD-1153-2002.pdf.

ECF-HANFORD-11-0038, 2012, *Soil Background Data for Interim Use at the Hanford Site*, Rev. 0, CH2M HILL Plateau Remediation Company, Richland, Washington.

ECF-HANFORD-11-0158, 2011, *Tier 2 Terrestrial Plant and Invertebrate Preliminary Remediation Goals (PRGs) for Nonradionuclides for Use at the Hanford Site*, Rev. 0, CH2M HILL Plateau Remediation Company, Richland, Washington.

Ecology Publication 03-09-088, 2003, *Development of Freshwater Sediment Quality Values for Use in Washington State Phase II Report: Development and Recommendation of SQVs for Freshwater Sediments in Washington State*, Toxics Cleanup Program, Sediment Management Unit, Washington State Department of Ecology, Olympia, Washington. Available at http://www.ecy.wa.gov/pubs/0309088.pdf.

Ecology Publication 11-03-006, 2011, *Ecological Soil Screening Levels for Arsenic and Lead in the Tacoma Smelter Plume Footprint and Hanford Site Old Orchards Ecology*, Washington State Department of Ecology, Olympia, Washington. Available at: http://www.ecy.wa.gov/pubs/1103006.pdf.

Ecology Publication 11-09-054, 2011, *Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho*, Washington State Department of Ecology, Olympia, Washington. Available at: http://www.ecy.wa.gov/pubs/1109054.pdf.

Environment Canada, 2010, *Summary Assessment for the Challenge Vanadium oxide (Vanadium pentoxide) Chemical Abstracts Service Registry Number 1314-62-1*, Environment Canada Health Canada, Gatineau, Quebec, Canada. Available at: http://www.ec.gc.ca/ese-ees/62A2DBA9-0636-4217-8D9B-36AFEB878179/batch9_1314-62-1_en.pdf.

EPA, 2009, *National Recommended Water Quality Criteria*, U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology, Washington, D.C. Available at: http://www.epa.gov/waterscience/criteria/wqcriteria.html.

EPA 440-5-88-093, 1988, *Ambient Aquatic Life Water Quality Criteria for Antimony (III)*, Draft, Environmental Research Laboratories, Office of Research and Development, U.S. Environmental Protection Agency, Duluth, Minnesota. Available at: http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=00001OIA.txt.

EPA-600-R-02-011, 2005, *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Metal Mixtures (Cadmium, Copper, Lead, Nickel, Silver, and Zinc)*, Office or Research and Development, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/nheerl/download_files/publications/metalsESB_022405.pdf.

EPA/600/R-07/140, 2007, *Monitored Natural Attenuation of Inorganic Contaminants in Ground Water: Volume 2 – Assessment for Non-Radionuclides Including Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Nitrate, Perchlorate, and Selenium*, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/nrmrl/pubs/600R07140.html.

EPA/ROD/R10-96/134, 1996, *Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units Interim Remedial Actions, Hanford Site, Benton County, Washington*, U.S. Environmental Protection Agency, Washington State Department of Ecology, and U.S. Department of Energy, Olympia, Washington. Available at: http://www.epa.gov/superfund/sites/rods/fulltext/r1096134.pdf.

EPA/ROD/R10-99/039, 1999, *Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units, Hanford Site, Benton County, Washington (100 Area Remaining Sites)*, U.S. Department of Energy, U.S. Environmental Protection Agency, Region 10, Washington State Department of Ecology, Olympia, Washington. Available at: http://www.epa.gov/superfund/sites/rods/fulltext/r1099039.pdf.

ES/ER/TM-85/R3, 1997, *Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision*, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee. Available at: http://rais.ornl.gov/documents/tm85r3.pdf.

ES/ER/TM-95/R4, 1997, *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Sediment-Associated Biota: 1997 Revision*, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee. Available at: http://www.esd.ornl.gov/programs/ecorisk/documents/tm95r4.pdf.

ES/ER/TM-96/R2, 1996, *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision*, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee. Available at: http://rais.ornl.gov/documents/tm96r2.pdf.

ES/ER/TM-126/R2, 1997, *Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision*, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee. Available at: http://www.ornl.gov/~webworks/cpr/rpt/75155.pdf.

Fendorf, S.E. and R.J. Zasoski, 1992, "Chromium(iii) Oxidation by Delta-MnO_2 .1. Characterization," *Environmental Science & Technology* 26:79-85.

GBEI/EC-99-001, 1999, *A Compendium of Environmental Quality Benchmarks*, prepared by MacDonald Environmental Sciences Limited for Environment Canada, Georgia Basin Ecosystem Initiative, Nanaimo, British Columbia, Canada.

James, Bruce R. and Richmond J. Bartlett, 1983, "Behavior of Chromium in Soils: V. Fate of Organically Complexed Cr(III) Added to Soil," *Journal of Environmental Quality* 12(2):169-172.

Knudtson, Bruce K., 1979, "Acute Toxicity of Vanadium to Two Species of Freshwater Fish," *Bull. Environm. Contam. Toxicol.* 23(1):95-99. Available at: http://www.springerlink.com/content/p53863516676010u/.

MacDonald, D.D., L.M. Dipinto, J. Field, C.G. Ingersoll, E.R. Long, and R.C. Swartz, 2000, "Development and Evaluation of Consensus-Based Sediment Effect Concentrations for Polychlorinated Biphenyls," *Environ. Toxicol. Chem.*19(5):1403-1413. Available at: http://www.swrcb.ca.gov/water_issues/programs/tmdl/docs/303d_policydocs/241.pdf.

McGurk, M.D., F. Landry, A. Tang, and C.C. Hanks, 2006, "Acute and Chronic Toxicity of Nitrate to Early Life Stages of Lake Trout (*Salvelinus Namaycush*) and Lake Whitefish (*Coregonus Clupeaformis*)," *Env. Sci. Tox.* 25(8):2187-2196. Available at: http://onlinelibrary.wiley.com/doi/10.1897/05-270R.1/pdf.

MDEQ, 2011, "Water Quality Values," Rule 57, Michigan Department of Environmental Quality, Lansing, Michigan. Available at: http://www.michigan.gov/deq/0,1607,7-135-3313_3686_3728-11383--,00.html.

Milacic R. and J. Stupar, 1995, "Fractionation and Oxidation of Chromium in Tannery Waste- and Sewage-Sludge-Amended Soils," *Environ. Sci. Technology* 29(2):506-514.

Neumann, Dietrich, Meike Kramer, Ina Raschke, and Brigitte Gräfe, 2001, "Detrimental Effects of Nitrite on the Development of Benthic Chironomus Larvae, in Relation to Their Settlement in Muddy Sediments," *Archiv für Hydrobiologie* 153(1):103-128.

OSWER Directive 9285.7-55, 2005, *Guidance for Developing Ecological Soil Screening Levels*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/ecossl_guidance_chapters.pdf.

OSWER Directive 9285.7-60, 2003, *Ecological Soil Screening Level for Aluminum: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_aluminum.pdf.

OSWER Directive 9285.7-64, 2005, *Ecological Soil Screening Levels for Beryllium: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_beryllium.pdf.

OSWER Directive 9285.7-68, 2007, *Ecological Soil Screening Levels for Copper: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C., revised February 2007. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_copper.pdf.

OSWER Directive 9285.7-70, 2005, *Ecological Soil Screening Levels for Lead: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_lead.pdf.

OSWER Directive 9285.7-72, 2007, *Ecological Soil Screening Levels for Selenium: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_selenium.pdf.

OSWER Directive 9285.7-75, 2005, *Ecological Soil Screening Levels for Vanadium: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://rais.ornl.gov/documents/eco-ssl_vanadium.pdf.

OSWER Directive 9285.7-76, 2007, *Ecological Soil Screening Levels for Nickel: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://rais.ornl.gov/documents/eco-ssl_nickel.pdf.

OSWER Directive 9285.7-77, 2006, *Ecological Soil Screening Levels for Silver: Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at: http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_silver.pdf.

PNL-5289, 1984, *Investigation of Ground-Water Seepage from the Hanford Shoreline of the Columbia River*, Pacific Northwest Laboratory, Richland, Washington. Available at: http://www2.hanford.gov/arpir/?content=findpage&AKey=D196018566.

PNL-7500, 1990, *1988 Hanford Riverbank Springs Characterization Report*, Pacific Northwest Laboratory, Richland, Washington. Available at: http://www2.hanford.gov/arpir/?content=findpage&AKey=D196110656.

PNNL-13674, 2001, *Zone of Interaction Between Hanford Site Groundwater and Adjacent Columbia River: Progress Report for the Groundwater/River Interface Task Science and Technology Groundwater/Vadose Zone Integration Project*, Pacific Northwest National Laboratory, Richland, Washington. Available at: http://www.pnl.gov/main/publications/external/technical_reports/pnnl-13674.pdf.

PNNL-13688, 2001, *Vascular Plants of the Hanford Site*, Pacific Northwest National Laboratory, Richland, Washington. Available at: http://www.pnl.gov/main/publications/external/technical_reports/pnnl-13688.pdf.

PNNL-18577, 2009, *A Review of Metal Concentrations Measured in Surface Soil Samples Collected on and Around the Hanford Site*, Pacific Northwest National Laboratory, Richland, Washington. Available at: http://www.pnl.gov/main/publications/external/technical_reports/PNNL-18577.pdf.

PNNL-19455, 2010, *Hanford Site Environmental Report for Calendar Year 2009*, Pacific Northwest National Laboratory, Richland, Washington. Available at: http://www.pnl.gov/main/publications/external/technical_reports/PNNL-19455.pdf.

PNNL-SA-41467, 2004, *Literature Review of Environmental Documents in Support of the 100 and 300 Area River Corridor Baseline Risk Assessment*, Pacific Northwest National Laboratory, Richland, Washington. Available at: http://www.washingtonclosure.com/documents/mission_complete/PNNL-SA-41467.pdf.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq. Available at: http://www.epa.gov/lawsregs/laws/rcra.html.

RIVM report 711701 023, 2001, *Technical evaluation of the Intervention Values for Soil/sediment and Groundwater*, Research for Man and the Environment, National Institute of Public Health and the Environment, Bilthoven, The Netherlands. Available at: http://www.rivm.nl/bibliotheek/rapporten/711701023.pdf.

SGW-39305, 2008, *Technical Evaluation of the Interaction of Groundwater with the Columbia River at the Department of Energy Hanford Site, 100-D Area*, Rev. 0, Fluor Hanford, Inc., Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0812290631.

Sheppard Steve C., Marsha I. Sheppard, Marie-Odile Gallerand, and Barb Sanipelli, 2005, "Derivation of Ecotoxicity Thresholds for Uranium," *J. Environ. Radioact*. 79(1):55-83.

Stendahl, D.H. and J.B. Sprague, 1982, "Effects of water hardness and pH on vanadium lethality to rainbow trout," *Water Research* 16(10):1479-1488.

UNI-3262, 1986 (declassified 1990), *River Discharge Lines Characterization Report*, UNC Nuclear Industries, Inc., Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=E0009368.

WAC 173-201A, "Water Quality Standards for Surface Waters of the State of Washington," *Washington Administrative Code*, Olympia, Washington. Available at: http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A.

WAC 173-340, "Model Toxics Control Act—Cleanup," *Washington Administrative Code*, Olympia, Washington. Available at: http://apps.leg.wa.gov/WAC/default.aspx?cite=173-340.

WAC 173-340-900, "Model Toxics Control Act—Cleanup," "Tables," Table 749-3, "Ecological Indicator Soil Concentrations (mg/kg) for Protection of Terrestrial Plants and Animals," *Washington Administrative Code*, Olympia, Washington. Available at: http://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-900.

WCH-380, 2010, *Field Summary Report for Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington: Collection of Surface Water, Pore Water, and Sediment Samples for Characterization of Groundwater Upwelling*, Rev. 1, Washington Closure Hanford, Richland, Washington. Available at: http://www.osti.gov/bridge/servlets/purl/1017505-Cey2Kn/1017505.pdf.

WCH-398, 2011, *Data Summary Report for the Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington*, Rev. 0, Washington Closure Hanford, Richland, Washington. Available at: http://www.washingtonclosure.com/documents/mission_complete/WCH-398_Rev.0/WCH-398%20Rev.%200%20Sections%201-8.pdf.

Weaver, Robert M. and Michael F. Hochella, Jr., 2003, "The Reactivity of Seven Mn-oxides with Cr^{3+}aq: A Comparative Analysis of a Complex, Environmentally Important Redox Reaction," *American Mineralogist* 88:2016-2027. Available at: http://ag.udel.edu/soilchem/Weaver03AmerMin.pdf.

WHC-SN-EN-TI-198, 1993, *100 Area Columbia River Sediment Sampling*, Rev. 0, Westinghouse Hanford Company, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=D196111730.

WHC-SD-EN-TI-278, 1994, *Columbia River Effluent Pipeline Survey*, Rev. 0, Westinghouse Hanford Company, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=D196074913.

WHO, 2001, *Vanadium Pentoxide and Other Inorganic Vanadium Compounds*, Concise International Chemical Assessment Document 29, World Health Organization, Geneva, Switzerland. Available at: http://www.who.int/ipcs/publications/cicad/en/cicad29.pdf.

This page intentionally left blank.

Table L-1. Summary of Near Shore Wells and Aquifer Tubes for the 100-D Area of the 100-HR-3 Groundwater Operable Unit

Near Shore Wells				
199-D4-23	199-D4-39	199-D4-84	199-D4-99	199-D8-69
199-D4-38	199-D4-83	199-D4-98	199-D8-55	199-D8-90
Aquifer Tubes				
35-S	AT-D-4-M	C7646	DD-16-3	DD-44-3
36-D	AT-D-4-S	C7647	DD-16-4	DD-44-4
36-M	AT-D-5-D	C7648	DD-17-2	DD-49-1
36-S	AT-D-5-M	DD-06-2	DD-17-3	DD-49-2
37-S	C6266	DD-06-3	DD-39-1	DD-49-3
38-D	C6267	DD-08-2	DD-39-2	DD-49-4
38-M	C6268	DD-08-3	DD-39-3	DD-50-1
AT-D-1-D	C6269	DD-08-4	DD-41-1	DD-50-2
AT-D-1-M	C6270	DD-10-2	DD-41-2	DD-50-3
AT-D-1-S	C6271	DD-10-3	DD-41-3	DD-50-4
AT-D-2-M	C6272	DD-10-4	DD-42-2	Redox-1-3.3
AT-D-2-S	C6275	DD-12-2	DD-42-3	Redox-1-6.0
AT-D-3-D	C6278	DD-12-4	DD-42-4	Redox-2-6.0
AT-D-3-M	C6281	DD-15-2	DD-43-2	Redox-3-4.6
AT-D-3-S	C6282	DD-15-3	DD-43-3	Redox-4-6.0
AT-D-4-D	C7645	DD-15-4		

Table L-2. Summary of Near Shore Wells and Aquifer Tubes for the 100-H Area of the 100-HR-3 Groundwater Operable Unit

Near Shore Wells				
199-H1-37	199-H4-11	199-H4-13	199-H4-15CQ	199-H4-4
199-H2-1	199-H4-12A	199-H4-15A	199-H4-15CR	199-H4-63
199-H3-9	199-H4-12B	199-H4-15B	199-H4-15CS	199-H4-64
199-H4-10	199-H4-12C	199-H4-15CP		
Aquifer Tubes				
43-M	51-D	AT-H-2-M	C5673	C6287
44-M	51-M	AT-H-2-S	C5674	C6288
45-D	51-S	AT-H-3-D	C5676	C6290
45-M	52-D	AT-H-3-S	C5677	C6291
45-S	52-M	C5632	C5678	C6293
47-D	52-S	C5633	C5679	C6296
47-M	54-D	C5634	C5680	C6297
48-M	54-M	C5635	C5681	C6299
48-S	54-S	C5636	C5682	C6300
49-D	AT-H-1-D	C5637	C6284	C6301
49-M	AT-H-1-M	C5638	C6285	C7649
50-M	AT-H-1-S	C5641	C6286	C7650
50-S	AT-H-2-D	C5644		

Table L-3. Surface Water NOECs for Aquatic Biota and Amphibians

Analyte Name	CAS#	Units	Surface Water ESL	Surface Water ESL Basis	Surface Water ESL Source	Notes
4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	1.00E-03	WQC CCC	EPA, 2009	--
Acetone	67-64-1	µg/L	1.50E+03	Tier II SCV	ES/ER/TM-96/R2	--
aldrin	309-00-2	µg/L	1.90E+03	WQS	WAC 173-201A	Water Quality Standards for Surface Waters of WA
Alpha-Chlordane	5103-71-9	µg/L	4.30E-03	WQC CCC	EPA, 2009	--
Aluminum	7429-90-5	µg/L	8.70E+01	WQC CCC	EPA, 2009	--
Antimony	7440-36-0	µg/L	3.00E+01	WQC CCC	EPA 440-5-88-093	Proposed continuous chronic criterion
Aroclor-1016	12674-11-2	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1221	11104-28-2	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1232	11141-16-5	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1242	53469-21-9	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1248	12672-29-6	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1254	11097-69-1	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Aroclor-1260	11096-82-5	µg/L	1.40E-02	WQC CCC	EPA, 2009	--
Arsenic	7440-38-2	µg/L	1.50E+02	WQC CCC	EPA, 2009	--
Barium	7440-39-3	µg/L	3.64E+02	Tier II SCV	MDEQ, 2011	Based on a 2005 hardness equation developed by the Michigan Department of Environmental Quality (MDEQ) and used by the Province of Quebec. An earlier (1996) version of the MDEQ equation was previously used by Quebec and cited in GBEI/EC-99-001, and used in the RCBRA (DOE/RL-2007-21) to calculate a screening value. The proposed NOEC value of 0.364 mg/L reflects the use of the updated MDEQ equation, which is now also used by Quebec. Value calculated at a hardness of 84 mg/L.
Cadmium	7440-43-9	µg/L	2.20E-01	WQC CCC	EPA, 2009	Hardness adjusted to 84 mg/L, average for Columbia River.
calculated total uranium	calc_tot_U	µg/L	5.00E+00	PNEC	Sheppard et al., 2005	Sheppard aggregate value for invertebrates and plants. RCBRA receptor-specific value.
Chlordane	57-74-9	µg/L	4.30E-03	WQC CCC	EPA, 2009	--
Chloride	16887-00-6	µg/L	2.30E+05	WQC CCC	WAC 173-201A	--
Chloroform	67-66-3	µg/L	2.80E+01	Tier II SCV	ES/ER/TM-96/R2	--
Chromium	7440-47-3	µg/L	6.40E+01	WQC CCC	EPA, 2009	Hardness adjusted to 84 mg/L, average for Columbia River.
Cobalt	7440-48-4	µg/L	2.30E+01	Tier II SCV	ES/ER/TM-96/R2	--
Copper	7440-50-8	µg/L	1.00E+01	WQC CCC	WAC 173-201A	Hardness adjusted to 84 mg/L, average for Columbia River.
Cyanide	57-12-5	µg/L	5.20E+00	WQC CCC	EPA, 2009	--
Dieldrin	60-57-1	µg/L	1.90E-03	--	--	40 CFR 131 Water Quality Standards-Freshwater CCC (Chronic)
Endosulfan I	959-98-8	µg/L	5.60E-02	WQC CCC	EPA, 2009	--
Endosulfan II	33213-65-9	µg/L	5.60E-02	WQC CCC	EPA, 2009	--
Endrin	72-20-8	µg/L	2.30E-03	--	--	40 CFR 131 Water Quality Standards-Freshwater CCC (Chronic)
Fluoride	16984-48-8	µg/L	3.00E+02	AWQC	BCMOE, 1995	Tentative criterion; maximum where water hardness >/= 50 mg/L, – British Columbia
Gamma-BHC (Lindane)	58-89-9	µg/L	8.00E-02	--	--	40 CFR 131 Water Quality Standards-Freshwater CCC (Chronic)
Heptachlor	76-44-8	µg/L	3.80E-03	WQC CCC	EPA, 2009	--
Heptachlor epoxide	1024-57-3	µg/L	3.80E-03	WQC CCC	EPA, 2009	--
Hexavalent chromium	18540-29-9	µg/L	1.00E+01	WQC CCC	WAC 173-201A	Washington State Water Quality Standards for Surface Waters, Table 240(3) Toxic Substances Criteria
iron	7439-89-6	µg/L	1.00E+03	WQC CCC	EPA, 2009	--
Lead	7439-92-1	µg/L	2.10E+00	WQC CCC	EPA, 2009	Hardness adjusted to 84 mg/L, average for Columbia River.
Manganese	7439-96-5	µg/L	1.20E+02	Tier II SCV	ES/ER/TM-96/R2	--
Mercury	7439-97-6	µg/L	1.20E-02	WQC CCC	WAC 173-201A	Washington State Water Quality Standards for SW, Table 240(3) Toxic Substances Criteria. Note base don HH consumption of fish, not designed to be protective of aquatic life which yields a different value.

Table L-3. Surface Water NOECs for Aquatic Biota and Amphibians

Analyte Name	CAS#	Units	Surface Water ESL	Surface Water ESL Basis	Surface Water ESL Source	Notes
Methoxychlor	72-43-5	µg/L	3.00E-02	WQC CCC	EPA, 2009	--
Nickel	7440-02-0	µg/L	4.50E+01	WQC CCC	EPA, 2009	Hardness adjusted to 84 mg/L, average for Columbia River.
Nitrate	14797-55-8	µg/L	7.10E+03	Fish NOEC	McGurk et al., 2006	Chronic NOEC for fish. In comparison, Camargo et al., 2005 suggest that 2,000 µg/L is protective of the most sensitive freshwater species
Nitrogen in Nitrate	NO3-N	µg/L	1.60E+03	Fish NOEC	McGurk et al., 2006	Chronic NOEC for fish. In comparison, Camargo et al., 2005 suggest that 2,000 µg/L is protective of the most sensitive freshwater species
Nitrite	14797-65-0	µg/L	2.46E+02	--	Neuman et al., 2001	UF of 2 applied to study LOEC of 0.49 mg/L (0.15 mg/L NO2-N) for significant reduction in development.
Pentachlorophenol	87-86-5	µg/L	1.30E+01	WQS	WAC 173-201A	Water Quality Standards for Surface Waters of WA
Phosphate	14265-44-2	µg/L	1.00E+03	Plant NOEC	Blindow, 1988	Plant value; no effect on growth. Phosphorous used as surrogate.
Phosphorus	7723-14-0	µg/L	1.00E+03	Plant NOEC	Blindow, 1988	Plant value; no effect on growth.
Selenium	7782-49-2	µg/L	5.00E+00	WQC CCC	WAC 173-201A	--
silver	7440-22-4	µg/L	2.61E+00	WQS	WAC 173-201A	Water Quality Standards for Surface Waters of WA
Total PCBs	TOTALPCB	µg/L	1.40E-01	Tier II SCV	ES/ER/TM-96/R2	--
Total Petroleum Hydrocarbons - diesel range	TPHDIESEL	µg/L	5.00E+02	--	CRWQCB, 2007	TPH value
toxaphene	8001-35-2	µg/L	2.00E-04	WQS	WAC 173-201A	Water Quality Standards for Surface Waters of WA
Trichloroethene	79-01-6	µg/L	4.70E+01	Tier II SVC	ES/ER/TM-96/R2	--
Uranium	7440-61-1	µg/L	5.00E+00	PNEC	Sheppard et al., 2005	Sheppard aggregate value for invertebrates and plants. RCBRA (DOE/RL-2007-21) receptor-specific value.
Vanadium	7440-62-2	µg/L	1.00E+02	NOEC	WHO, 2001	World Health Organization gives range of LC_{50} values for freshwater fish, from 400 µg/L (144-h exposure) to 118,000 µg/L (96-h exposure). Given the uncertainty in such a broad concentration range for the same endpoint, a NOEC was considered based on using the lowest LC_{50} (400 µg/L; Knudtson, 1979). This study apparently lacked controls, had nominal concentrations and measured non-native species (guppy). It is recommended that Stendahl and Sprague (1982) be used because of good study design (measured values, representative species and hardness [103 mg/L $CaCO_3$], flow-through test) based on 11-d LC50 of 2,000 µg/L. UF of 20 applied.
Zinc	7440-66-6	µg/L	9.00E+01	Washington chronic WQS	WAC 173-201A	Hardness adjusted to 84 mg/L, average for Columbia River.
Sulfate	14808-79-8	µg/L	NA	--	--	No value available
Total Petroleum Hydrocarbons - motor oil (high boiling)	TPH/OILH	µg/L	NA	--	--	No value available
Antimony-125	14234-35-6	pCi/L	3.67E+05	BCG	DOE-STD-1153-2002	Aquatic animal
Barium-140	14798-08-4	pCi/L	9.46E+01	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Riparian animal value
Carbon-14	14762-75-5	pCi/L	6.09E+02	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Riparian animal value
Cerium/Praseodymium-144	CE/PR-144	pCi/L	1.60E+03	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Cerium-141	13967-74-3	pCi/L	8.83E+03	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Cerium-144	14762-78-8	pCi/L	1.60E+03	BCG	DOE-STD-1153-2002	Aquatic animal
Cesium-134	13967-70-9	pCi/L	2.11E+01	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Riparian animal value
Cesium-137	10045-97-3	pCi/L	4.26E+01	BCG	DOE-STD-1153-2002	Riparian animal value
Chromium-51	14392-02-0	pCi/L	2.68E+05	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Cobalt-58	13981-38-9	pCi/L	9.68E+03	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Cobalt-60	10198-40-0	pCi/L	3.76E+03	BCG	DOE-STD-1153-2002	Aquatic animal
Europium-152	14683-23-9	pCi/L	2.55E+04	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Europium-154	15585-10-1	pCi/L	2.16E+04	BCG	DOE-STD-1153-2002	Aquatic animal
Europium-155	14391-16-3	pCi/L	2.64E+04	BCG	DOE-STD-1153-2002	Aquatic animal

Table L-3. Surface Water NOECs for Aquatic Biota and Amphibians

Analyte Name	CAS#	Units	Surface Water ESL	Surface Water ESL Basis	Surface Water ESL Source	Notes
Iodine-129	15046-84-1	pCi/L	3.84E+04	BCG	DOE-STD-1153-2002	Riparian animal value
Iodine-131	10043-66-0	pCi/L	1.37E+04	BCG	DOE-STD-1153-2002	Riparian animal value
Neptunium-237	13994-20-2	pCi/L	6.85E+01	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Plutonium-238	13981-16-3	pCi/L	1.76E+02	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Plutonium-239	15117-48-3	pCi/L	1.87E+02	BCG	DOE-STD-1153-2002	Aquatic animal
Plutonium-239/240	PU-239/240	pCi/L	1.87E+02	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal. Value for Pu-239
Potassium-40	13966-00-2	pCi/L	2.50E+02	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Riparian animal value
Radium-226	13982-63-3	pCi/L	4.08E+00	BCG	DOE-STD-1153-2002	Riparian animal value
Radium-228	15262-20-1	pCi/L	3.40E+00	BCG	DOE-STD-1153-2002	Riparian animal value
Selenium-75	SE-75	pCi/L	4.78E+04	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Strontium-90	10098-97-2	pCi/L	2.78E+02	BCG	DOE-STD-1153-2002	Riparian animal value
Technetium-99	14133-76-7	pCi/L	6.67E+05	BCG	DOE-STD-1153-2002	Riparian animal value
Thorium		pCi/L	3.04E+02	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Thorium-230	14269-63-7	pCi/L	2.57E+03	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Thorium-232	TH-232	pCi/L	3.04E+02	BCG	DOE-STD-1153-2002	Aquatic animal
Thorium-234	15065-10-8	pCi/L	2.67E+05	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Aquatic animal
Tritium	10028-17-8	pCi/L	2.65E+08	BCG	RESRAD BIOTA v1.5 (DOE/EH-0676)	Riparian animal value
Uranium-233/234	U-233/234	pCi/L	2.02E+02	BCG	DOE-STD-1153-2002	Value for U-234; same CAS no. Aquatic animal value.
Uranium-234	13966-29-5	pCi/L	2.02E+02	BCG	DOE-STD-1153-2002	Aquatic animal value
Uranium-235	15117-96-1	pCi/L	2.17E+02	BCG	DOE-STD-1153-2002	Aquatic animal
Uranium-238	U-238	pCi/L	2.23E+02	BCG	DOE-STD-1153-2002	Aquatic animal value
Zinc-65	13982-39-3	pCi/L	1.32E+01	BCG	DOE-STD-1153-2002	Riparian animal value
Zirconium/Niobium-95	ZR/NB-95	pCi/L	7.33E+03	BCG	DOE-STD-1153-2002	Aquatic animal value
Zirconium-95	13967-71-0	pCi/L	7.33E+03	BCG	DOE-STD-1153-2002	Aquatic animal value

Note: Complete citations for references listed in this table are provided in Section L6.
AWQC = ambient water quality criteria
BCG = biota concentration guide
Tier II SCV = Tier 2 secondary chronic value
WQC = water quality criteria
WQS = water quality standard

Table L-4. Summary of Ecological Soil Ecological Screening Levels

Analyte Name	CAS No	Analyte Group	Units	Plant ESL	Plant ESL Basis	Plant ESL Source	Invertebrate ESL	Invertebrate ESL Basis	Invertebrate ESL Source	Avian ESL	Avian ESL Basis	Avian ESL Source	Mammal ESL	Mammal ESL Basis	Mammal ESL Source
1,1,1-Trichloroethane	71-55-6	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1.00E+07	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,1,2,2-Tetrachloroethane	79-34-5	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	894,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,1,2-Trichloroethane	79-00-5	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1.00E+07	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,1-Dichloroethane	75-34-3	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	502,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,1-Dichloroethene	75-35-4	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	301,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,2,4-Trichlorobenzene	120-82-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	Non-Rad	µg/kg	--	--	--	--	--	--	164,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	282,000	SSL (NOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
1,2-Dichloroethane	107-06-2	Non-Rad	µg/kg	--	--	--	--	--	--	169,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	513,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
1,2-Dichloroethene (Total)	540-59-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	Non-Rad	µg/kg	--	--	--	--	--	--	164,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	310,000	SSL (NOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
1,4-Dichlorobenzene	106-46-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
1-Butanol	71-36-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
1-Propanol	71-23-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-D(2,4-Dichlorophenoxyacetic acid)	94-75-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	93-76-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	93-72-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	94-82-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Non-Rad	µg/kg	--	--	--	--	--	--	26,400	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	28,100	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
2,6-Dinitrotoluene	606-20-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	78-93-3	Non-Rad	µg/kg	--	--	--	--	--	--	3.12E+06	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	4.12E+08	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
2-Butoxyethanol	111-76-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	591-78-6	Non-Rad	µg/kg	--	--	--	--	--	--	1.86E+06	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1.71E+06	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
2-Methylnaphthalene	91-57-6	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	8,370	SSL (LOAEL) - California quail	CHPRC 00784, Table 6-13	6,010	SSL (LOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
2-Methylphenol (cresol, o-)	95-48-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	9.29E+06	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
2-Nitroaniline	88-74-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	91-94-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
3+4 Methylphenol (cresol, m+p)	65794-96-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	Non-Rad	µg/kg	--	--	--	--	--	--	800	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	400	SSL (LOAEL) - badger	CHPRC 00784, Table 6-13
4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	Non-Rad	µg/kg	--	--	--	--	--	--	1,190	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	882	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
4,6-Dinitro-2-methylphenol	534-52-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-3,5,6-trichloropicolinic acid	1918-02-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	101-55-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	7005-72-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	Non-Rad	µg/kg	--	--	--	--	--	--	1.93E+06	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	2.27E+08	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
4-Methylphenol (cresol, p-)	106-44-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	9.36E+06	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
4-Nitroaniline	100-01-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	Non-Rad	µg/kg	20,000	SSL - ORNL	ES/ER/TM-85/R3	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1.10E+06	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	2.42E+06	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Acenaphthylene	208-96-8	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	73,600	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	156,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Acetone	67-64-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Aldrin	309-00-2	Non-Rad	µg/kg	--	--	--	--	--	--	164	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	9,820	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Alpha-BHC	319-84-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
alpha-Chlordane	5103-71-9	Non-Rad	µg/kg	--	--	--	1,000	SSL - MTCA	WAC 173-340, Table 749-3	50,400	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	205,000	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Aluminum	7429-90-5	Non-Rad	µg/kg	--	--	--	--	--	--	7.21E+06	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	3.99E+06	PRG (mod) - deer mouse	CHPRC-01311, Table 3-1
Aniline	62-53-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--		
Anthracene	120-12-7	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	678,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	4.21E+06	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Antimony	7440-36-0	Non-Rad	µg/kg	842,000	PRG - Site specific study	ECF-HANFORD-11-0158	842,000	PRG - Site specific study	ECF-HANFORD-11-0158	--	--	--	146,000	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Aroclor-1016	12674-11-2	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	4,850	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Aroclor-1221	11104-28-2	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,470	SSL (LOAEL) - deer mouse, grasshopper mouse	CHPRC 00784, Table 6-13
Aroclor-1232	11141-16-5	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,440	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Aroclor-1242	53469-21-9	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,490	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Aroclor-1248	12672-29-6	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	325	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Aroclor-1254	11097-69-1	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,470	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Aroclor-1260	11096-82-5	Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,470	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Arsenic	7440-38-2	Non-Rad	µg/kg	128,000	PRG - Site specific study	Ecology Pub. 11-03-006	128,000	PRG - Site specific study	Ecology Pub. 11-03-006	2.28E+06	PRG (high) - killdeer	CHPRC-01311, Table 3-1	127,000	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Barium	7440-39-3	Non-Rad	µg/kg	500,000	PRG - ORNL	ES/ER/TM-85/R3	358,000	PRG - site-specific NOEC	RCBRA - DOE/RL 2007-21	1.69E+06	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	2.27E+06	PRG (mod) - great basin pocket mouse	CHPRC-01311, Table 3-1
Benzene	71-43-2	Non-Rad	µg/kg	--	--	--	--	--	--	195,000	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	70,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Benzo(a)anthracene	56-55-3	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	2,030	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	64,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13

Table L-4. Summary of Ecological Soil Ecological Screening Levels

Analyte Name	CAS No	Analyte Group	Units	Plant ESL	Plant ESL Basis	Plant ESL Source	Invertebrate ESL	Invertebrate ESL Basis	Invertebrate ESL Source	Avian ESL	Avian ESL Basis	Avian ESL Source	Mammal ESL	Mammal ESL Basis	Mammal ESL Source
Benzo(a)pyrene	50-32-8	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	2,410	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	76,400	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Benzo(b)fluoranthene	205-99-2	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,270	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	39,200	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Benzo(ghi)perylene	191-24-2	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,120	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	32,400	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Benzo(k)fluoranthene	207-08-9	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,270	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	39,200	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Benzoic acid	65-85-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	100-51-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	Non-Rad	µg/kg	10,000	PRG - ORNL	ES/ER/TM-85/R3	40,000	PRG - EcoSSL	OSWER Directive 9285.7-64	--	--	--	18,000	PRG (mod) - great basin pocket mouse	CHPRC-01311, Table 3-1
beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	Non-Rad	µg/kg	--	--	--	--	--	--	4,080	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	8,670	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Bis(2-chloro-1-methylethyl)ether	108-60-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl) ether	111-44-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	117-81-7	Non-Rad	µg/kg	100,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	140	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	45,400	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Bismuth	7440-69-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Boron	7440-42-8	Non-Rad	µg/kg	29,600	PRG - site-specific NOEC	RCBRA - DOE/RL 2007-21	58,000	PRG - site-specific NOEC	RCBRA - DOE/RL 2007-21	91,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	91,000	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Bromide	24959-67-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	Non-Rad	µg/kg	9,840	PRG - Site specific study	ECF-HANFORD-11-0158	20,000	PRG - ORNL	ES/ER/TM-126/R2	29,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	624,000	PRG (high) - deer mouse	CHPRC-01311, Table 3-1
Calcium	7440-70-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	75-15-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	160,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Chlordane	57-74-9	Non-Rad	µg/kg	--	--	--	1,000	SSL - MTCA	WAC 173-340, Table 749-3	50,200	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	204,000	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Chloride	16887-00-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Non-Rad	µg/kg	--	--	--	40,000	SSL - ORNL	ES/ER/TM-126/R2	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	387,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Chloroethane	75-00-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	412,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Chloromethane	74-87-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	Non-Rad	µg/kg	259,000	PRG - Site specific study	ECF-HANFORD-11-0158	149,000	PRG - site-specific NOEC	RCBRA - DOE/RL 2007-21	109,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	517,000	PRG (mod) - deer mouse	CHPRC-01311, Table 3-1
Chrysene	218-01-9	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,430	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	44,500	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
cis-1,2-Dichloroethylene	156-59-2	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	453,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
cis-1,3-Dichloropropene	10061-01-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	Non-Rad	µg/kg	15,700	PRG - Background	DOE/RL-92-24	15,700	PRG - Background	DOE/RL-92-24	484,000	PRG (high) - killdeer	CHPRC-01311, Table 3-1	2.14E+06	PRG (mod) - deer mouse	CHPRC-01311, Table 3-1
Co-elution of Aroclor-1242 and Aroclor-1016		Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	Non-Rad	µg/kg	70,000	PRG - EcoSSL	OSWER Directive 9285.7-68	58,000	PRG - Site specific study	Ecology Pub. 11-03-006	213,000	PRG (high) - killdeer	CHPRC-01311, Table 3-1	579,000	PRG (high) - deer mouse	CHPRC-01311, Table 3-1
Cyanide	57-12-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	2.07E+07	SSL (NOAEL) - deer mouse	CHPRC 00784, Table 6-13
Cyclohexane	110-82-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dalapon	75-99-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Decane	124-18-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Delta-BHC	319-86-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	53-70-3	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,420	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	44,100	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Dibenzofuran	132-64-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dicamba	1918-00-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dichloroprop	120-36-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	60-57-1	Non-Rad	µg/kg	--	--	--	--	--	--	79	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	21	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Diethyl ether	60-29-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	Non-Rad	µg/kg	100,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	131-11-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	959-98-8	Non-Rad	µg/kg	--	--	--	--	--	--	41,400	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	710	SSL (NOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
Endosulfan II	33213-65-9	Non-Rad	µg/kg	--	--	--	--	--	--	41,400	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	710	SSL (NOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
Endosulfan sulfate	1031-07-8	Non-Rad	µg/kg	--	--	--	--	--	--	41,400	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	560	SSL (NOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
Endrin	72-20-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	7421-93-4	Non-Rad	µg/kg	--	--	--	--	--	--	231	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	1,360	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Endrin ketone	53494-70-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol	107-21-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	Non-Rad	µg/kg	--	--	--	--	--	--	159,000	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	1.03E+06	SSL (LOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
Fluoranthene	206-44-0	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,090	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	839,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Fluorene	86-73-7	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	175,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	267,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Fluoride	16984-48-8	Non-Rad	µg/kg	--	--	--	--	--	--	2.28E+06	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1.38E+07	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Gamma-BHC (Lindane)	58-89-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	5566-34-7	Non-Rad	µg/kg	--	--	--	1,000	SSL - MTCA	WAC 173-340, Table 749-3	50,200	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	204,000	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Heptachlor	76-44-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor epoxide	1024-57-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Table L-4. Summary of Ecological Soil Ecological Screening Levels

Analyte Name	CAS No	Analyte Group	Units	Plant ESL	Plant ESL Basis	Plant ESL Source	Invertebrate ESL	Invertebrate ESL Basis	Invertebrate ESL Source	Avian ESL	Avian ESL Basis	Avian ESL Source	Mammal ESL	Mammal ESL Basis	Mammal ESL Source
Hexachlorobenzene	118-74-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Hexavalent Chromium	18540-29-9	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	1.25E+06	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Indeno(1,2,3-cd)pyrene	193-39-5	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,150	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	35,700	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Iron	7439-89-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	Non-Rad	µg/kg	9.09E+06	PRG - Site specific study	ECF-HANFORD-11-0158	1.70E+06	PRG - EcoSSL	OSWER Directive 9285.7-70	156,000	PRG (high) - killdeer	CHPRC-01311, Table 3-1	1.58E+06	PRG (high) - deer mouse	CHPRC-01311, Table 3-1
Lithium	7439-93-2	Non-Rad	µg/kg	35,000	PRG - MTCA	WAC 173-340, Table 749-3	--	--	--	--	--	--	1.66E+06	PRG (mod) - great basin pocket mouse	CHPRC-01311, Table 3-1
Magnesium	7439-95-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	Non-Rad	µg/kg	1.26E+06	PRG - Site specific study	ECF-HANFORD-11-0158	1.26E+06	PRG - Site specific study	ECF-HANFORD-11-0158	1.44E+07	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	3.32E+06	PRG (mod) - great basin pocket mouse	CHPRC-01311, Table 3-1
Mercury	7439-97-6	Non-Rad	µg/kg	300	PRG - ORNL	ES/ER/TM-85/R3	12,500	PRG - Site specific study	ECF-HANFORD-11-0158	2,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	1,600	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Methoxychlor	72-43-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	21,800	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Methylene chloride	75-09-2	Non-Rad	µg/kg	--	--	--	--	--	--	166,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	504,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Molybdenum	7439-98-7	Non-Rad	µg/kg	2,000	PRG - ORNL	ES/ER/TM-85/R3	28,000	PRG - Site specific study	ECF-HANFORD-11-0158	95,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	5,700	PRG (mod) - deer mouse	CHPRC-01311, Table 3-1
m-Xylene	108-38-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	340,000	SSL (LOAEL) - California quail	CHPRC 00784, Table 6-13	100,000	SSL (LOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13
n-Butylbenzene	104-51-8	Non-Rad	µg/kg	--	--	--	--	--	--	193,000	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	1.45E+06	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Nickel	7440-02-0	Non-Rad	µg/kg	38,000	PRG - EcoSSL	OSWER Directive 9285.7-76	280,000	PRG - EcoSSL	OSWER Directive 9285.7-76	361,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	247,000	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Nitrate	14797-55-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	3.40E+08	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Nitrite	14797-65-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	3.40E+08	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Nitrobenzene	98-95-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen in Nitrate	NO3-N	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen in Nitrite	NO2-N	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
n-Nitrosodi-n-dipropylamine	621-64-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
PCB		Non-Rad	µg/kg	40,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	1,820	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	1,470	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Pentachlorophenol	87-86-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	Non-Rad	µg/kg	--	--	--	29,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	943,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	5.92E+06	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Phenol	108-95-2	Non-Rad	µg/kg	70,000	SSL - ORNL	ES/ER/TM-85/R3	30,000	SSL - ORNL	ES/ER/TM-126/R2	--	--	--	1.51E+06	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Phosphate	14265-44-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus	7723-14-0	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	Non-Rad	µg/kg	--	--	--	18,000	SSL - EcoSSL	OSWER Dir. 9285.7-75	1,860	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	600,000	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Selenium	7782-49-2	Non-Rad	µg/kg	2,020	PRG - Site specific study	ECF-HANFORD-11-0158	4,100	PRG - EcoSSL	OSWER Directive 9285.7-72	2,400	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	1,400	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Silicon	7440-21-3	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	Non-Rad	µg/kg	560,000	PRG - EcoSSL	OSWER Directive 9285.7-77	2,990	PRG - Site specific study	ECF-HANFORD-11-0158	983,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	9.81E+06	PRG (mod-high) - deer mouse	CHPRC-01311, Table 3-1
Sodium	7440-23-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Strontium	7440-24-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	1.21E+06	PRG (mod) - great basin pocket mouse	CHPRC-01311, Table 3-1
Styrene	100-42-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	14808-79-8	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	12597-04-5	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	Non-Rad	µg/kg	--	--	--	--	--	--	164,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	69,800	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Thallium	7440-28-0	Non-Rad	µg/kg	1,000	PRG - ORNL	ES/ER/TM-85/R3	459	PRG - Site specific study	ECF-HANFORD-11-0158	--	--	--	6,200	PRG (mod) - deer mouse	CHPRC-01311, Table 3-1
Tin	7440-31-5	Non-Rad	µg/kg	838,000	PRG - Site specific study	ECF-HANFORD-11-0158	838,000	PRG - Site specific study	ECF-HANFORD-11-0158	84,000	PRG (LOAEL) - killdeer-Calculated	CHPRC 01311, Table 3-1	130,000	PRG (LOAEL) - great basin pocket mouse	CHPRC 01311, Table 3-1
Titanium	7440-32-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Non-Rad	µg/kg	200,000	SSL - ORNL	ES/ER/TM-85/R3	--	--	--	195,000	SSL (NOAEL) - killdeer	CHPRC 00784, Table 6-13	5.20E+06	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Total petroleum hydrocarbons	TPH	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Total petroleum hydrocarbons - diesel range	TPHDIESEL	Non-Rad	µg/kg	--	--	--	200,000	SSL - MTCA	WAC 173-340, Table 749-3	3.56E+08	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	4.52E+08	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Total petroleum hydrocarbons - kerosene range	TPHKEROSENE	Non-Rad	µg/kg	--	--	--	--	--	--	3.56E+08	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	4.52E+08	SSL (LOAEL) - deer mouse	CHPRC 00784, Table 6-13
Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	8001-35-2	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	156-60-5	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	453,000	SSL (NOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
trans-1,3-Dichloropropene	10061-02-6	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	Non-Rad	µg/kg	--	--	--	--	--	--	165,000	SSL (LOAEL) - killdeer	CHPRC 00784, Table 6-13	70,000	SSL (LOAEL) - grasshopper mouse	CHPRC 00784, Table 6-13
Trichloromonofluoromethane	75-69-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Uranium	7440-61-1	Non-Rad	µg/kg	250,000	PRG - PNEC	Sheppard et al., 2005	100,000	PRG - PNEC	Sheppard et al., 2005	82,000	PRG (mod) - red-tailed hawk	CHPRC-01311, Table 3-1	22,000	PRG (high) - badger	CHPRC-01311, Table 3-1
Vanadium	7440-62-2	Non-Rad	µg/kg	89,400	PRG - Site specific study	ECF-HANFORD-11-0158	116,000	PRG - Site specific study	ECF-HANFORD-11-0158	43,000	PRG (mod) - killdeer	CHPRC-01311, Table 3-1	260,000	PRG (high) - great basin pocket mouse	CHPRC-01311, Table 3-1
Vinyl acetate	108-05-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	75-01-4	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	Non-Rad	µg/kg	--	--	--	--	--	--	149,000	SSL (NOAEL) - California quail	CHPRC 00784, Table 6-13	826,000	SSL (LOAEL) - great basin pocket mouse	CHPRC 00784, Table 6-13

Table L-4. Summary of Ecological Soil Ecological Screening Levels

Analyte Name	CAS No	Analyte Group	Units	Plant ESL	Plant ESL Basis	Plant ESL Source	Invertebrate ESL	Invertebrate ESL Basis	Invertebrate ESL Source	Avian ESL	Avian ESL Basis	Avian ESL Source	Mammal ESL	Mammal ESL Basis	Mammal ESL Source
Zinc	7440-66-6	Non-Rad	µg/kg	621,000	PRG - site-specific NOEC	RCBRA - DOE/RL 2007-21	8.98E+06	PRG - Site specific study	ECF-HANFORD-11-0158	856,000	PRG (high) - killdeer	CHPRC-01311, Table 3-1	1.04E+06	PRG (mod) - badger	CHPRC-01311, Table 3-1
Zirconium	7440-67-7	Non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--
Americium-241	14596-10-2	Rad	pCi/g	21,500	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	11,900	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	4,840	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Carbon-14	14762-75-5	Rad	pCi/g	60,700	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	50	PRG (LOAEL) - red-tailed hawk - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	32	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Cesium-137	10045-97-3	Rad	pCi/g	2,210	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	1,430	PRG (LOAEL) - red-tailed hawk - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	924	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Cobalt-60	10198-40-0	Rad	pCi/g	6,130	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	805	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	805	PRG (LOAEL) - mice - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Curium-243	15757-87-6	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Curium-244	13981-15-2	Rad	pCi/g	153,000	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	1.05E+06	PRG (LOAEL) - red-tailed hawk - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	50,800	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Curium-245	15621-76-8	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Europium-152	14683-23-9	Rad	pCi/g	14,700	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	1,740	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	1,740	PRG (LOAEL) - mice - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Europium-154	15585-10-1	Rad	pCi/g	12,500	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	1,610	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	1,610	PRG (LOAEL) - mice - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Europium-155	14391-16-3	Rad	pCi/g	153,000	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	33,400	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	33,400	PRG (LOAEL) - mice - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Nickel-63	13981-37-8	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Plutonium-238	13981-16-3	Rad	pCi/g	17,500	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	20,900	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	5,980	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Plutonium-239/240	PU-239/240	Rad	pCi/g	12,700	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	22,300	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	6,270	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Plutonium-241	14119-32-5	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Potassium-40	13966-00-2	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226	13982-63-3	Rad	pCi/g	288	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	58	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	165	PRG (LOAEL) - deer mouse - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Radium-226 measured via daughter isotope		Rad	pCi/g	288	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	58	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	165	PRG (LOAEL) - deer mouse - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Radium-228	15262-20-1	Rad	pCi/g	245	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	55	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	165	PRG (LOAEL) - deer mouse - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Technetium-99	14133-76-7	Rad	pCi/g	21,900	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	5,360	PRG (LOAEL) - California quail - Calculated	CHPRC 00784, Table 6-13	8,670	PRG (LOAEL) - great basin pocket mouse- Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Thorium-228	14274-82-9	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Thorium-230	14269-63-7	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Thorium-232	TH-232	Rad	pCi/g	23,500	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	5,070	PRG (LOAEL) - California quail - Calculated	CHPRC 00784, Table 6-13	4,560	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Thorium-232 measured via daughter isotope		Rad	pCi/g	23,500	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	5,070	PRG (LOAEL) - California quail - Calculated	CHPRC 00784, Table 6-13	4,560	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Total beta radiostrontium	SR-RAD	Rad	pCi/g	3,580	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	112	PRG (LOAEL) - red-tailed hawk - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	91	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Strontium-90	10098-97-2	Rad	pCi/g	3,580	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	112	PRG (LOAEL) - red-tailed hawk - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	91	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Tritium (hydrogen 3)	10028-17-8	Rad	pCi/g	1.68E+06	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	936	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	420	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Uranium-233/234	U-233/234	Rad	pCi/g	51,600	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	6,370	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	14,200	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Uranium-235	15117-96-1	Rad	pCi/g	27,400	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	4,360	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	8,060	PRG (LOAEL) - badger - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Uranium-238	U-238	Rad	pCi/g	15,700	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	5,150	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	11,000	PRG (LOAEL) - deer mouse - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Uranium-238 measured via daughter isotope		Rad	pCi/g	15,700	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	5,150	PRG (LOAEL) - killdeer-Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13	11,000	PRG (LOAEL) - deer mouse - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-13
Iodine-129	15046-84-1	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Neptunium-237	13994-20-2	Rad	pCi/g	8,150	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	--	--	--	--	--	--
Nickel-59	14336-70-0	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Niobium-94	14681-63-1	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Curium-243/244	CM-243/244	Rad	pCi/g	153,000	SSL - BCG - Calculated	DOE/EH-0676 and CHPRC 00784, Table 6-1	--	--	--	--	--	--	--	--	--
Silver-108	14391-65-2	Rad	pCi/g	--	--	--	--	--	--	--	--	--	--	--	--
Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	non-Rad	µg/kg	--	--	--	--	--	--	--	--	--	--	--	--

Note: Complete citations for references listed in this table are provided in Section L6.
BCG = biota concentration guide
DOE = department of energy

Table L-4. Summary of Ecological Soil Ecological Screening Levels

Analyte Name	CAS No	Analyte Group	Units	Plant ESL	Plant ESL Basis	Plant ESL Source	Invertebrate ESL	Invertebrate ESL Basis	Invertebrate ESL Source	Avian ESL	Avian ESL Basis	Avian ESL Source	Mammal ESL	Mammal ESL Basis	Mammal ESL Source
EcoSSL = Ecological soil screening level															
EPA = United States Environmental Protection Agency															
High = estimate of analyte in receptor diet based upon regression model with r2 >0.1 at p=0.05 with greater than 100 data points															
mg/kg = Milligram per kilogram															
mod = estimate of analyte in receptor diet based upon median BAF from between 10 and 100 data points															
mod-high = estimate of analyte in receptor diet based upon regression model with r2 >0.1 at p=0.05 with greater than 100 data points for one dietary item and estimated using a median BAF from between 10 and 100 data points forthe other dietary item															
MTCA = Model Toxic Control Act															
Non-Rad = non radiological chemical															
ORNL = Oakridge National Laboratory															
pCi/g = Pico Curie per gram															
pCi/g = pico curies per gram															
PNEC = probable no effect concentration															
PRG = preliminary remediation goal															
Rad = radiation wave emitting chemical															
SSL = soil screening level															
TPH = Total petroleum hydrocarbons															
µg/kg = micrograms per kilogram															

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
1,1*-Biphenyl,2,3*,4,4*,5-pentachloro-	31508-00-6	µg/kg	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	µg/kg	9,600	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
1,2-Dichlorobenzene	95-50-1	µg/kg	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	µg/kg	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,4*,5,5*,6,6*-Decachlorobiphenyl	2051-24-3	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,4*,5,5*,6-Nonachlorobiphenyl	40186-72-9	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,4*,5,6-Octachlorobiphenyl	52663-78-2	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,4*,5-Heptachlorobiphenyl	35065-30-6	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,4*-Hexachlorobiphenyl	38380-07-3	µg/kg	--	--	--	--	--	--
2,2*,3,3*,4,5,6,6*-Octachlorobiphenyl	52663-73-7	µg/kg	--	--	--	--	--	--
2,2*,3,4*,5,5*,6-Heptachlorobiphenyl	52663-68-0	µg/kg	--	--	--	--	--	--
2,2*,3,4,4*,5*-Hexachlorobiphenyl	35065-28-2	µg/kg	--	--	--	--	--	--
2,2*,3,4,4*,5,5*-Heptachlorobiphenyl	35065-29-3	µg/kg	--	--	--	--	--	--
2,2*,3,5*-Tetrachloro-1-1*-biphenyl	41464-39-5	µg/kg	--	--	--	--	--	--
2,2*,4,4*,5,5*,-Hexachloro-Biphenyl	35065-27-1	µg/kg	--	--	--	--	--	--
2,2*,4,5,5*-Pentachlorobiphenyl	37680-73-2	µg/kg	--	--	--	--	--	--
2,2*,5,5*-Tetrachlorobiphenyl	35693-99-3	µg/kg	--	--	--	--	--	--
2,2*,5-Trichlorobiphenyl	37680-65-2	µg/kg	--	--	--	--	--	--
2,3*,4,4*-Tetrachlorobiphenyl	32598-10-0	µg/kg	--	--	--	--	--	--
2,3,3*,4,4*-Pentachlorobiphenyl	32598-14-4	µg/kg	--	--	--	--	--	--
2,4*-Dichlorobiphenyl	34883-43-7	µg/kg	--	--	--	--	--	--
2,4,4*-Trichlorobiphenyl	7012-37-5	µg/kg	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	µg/kg	10	Dutch -target	RIVM report 711701	22,000	dutch intervention	RIVM report 711701
2,4,6-Trichlorophenol	88-06-2	µg/kg	10	Dutch -target	RIVM report 711701	110,000	dutch intervention	RIVM report 711701
2,4-Dichlorophenol	120-83-2	µg/kg	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	µg/kg	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	µg/kg	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	µg/kg	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	µg/kg	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	µg/kg	--	--	--	--	--	--
2-Chlorophenol	95-57-8	µg/kg	55	Dutch -target	RIVM report 711701	7,800	RIVM report 711701	RIVM report 711701
2-Methylnaphthalene	91-57-6	µg/kg	470	SQS	Ecology Publication 03-09-088	560	CSL	Ecology Publication 03-09-088
2-Methylphenol [cresol, o-]	95-48-7	µg/kg	12	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	50,000	dutch intervention	RIVM report 711701
2-Nitroaniline	88-74-4	µg/kg	--	--	--	--	--	--
2-Nitrophenol	88-75-5	µg/kg	--	--	--	--	--	--
3,3*,4,4*,5-Pentachlorobiphenyl	57465-28-8	µg/kg	--	--	--	--	--	--
3,3*,4,4*-Tetrachlorobiphenyl	32598-13-3	µg/kg	--	--	--	--	--	--
3,3*-Dichlorobenzidine	91-94-1	µg/kg	--	--	--	--	--	--
3+4 Methylphenol [cresol, m+p]	65794-96-9	µg/kg	260	SQS	Ecology Publication 11-09-054	2,000	CSL	Ecology Publication 03-09-088
3-Nitroaniline	99-09-2	µg/kg	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	--	--	--	--	--	--
4-Bromophenylphenyl ether	101-55-3	µg/kg	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	µg/kg	--	--	--	--	--	--
4-Chloroaniline	106-47-8	µg/kg	--	--	--	--	--	--
4-Chlorophenylphenyl ether	7005-72-3	µg/kg	--	--	--	--	--	--
4-Nitroaniline	100-01-6	µg/kg	--	--	--	--	--	--
4-Nitrophenol	100-02-7	µg/kg	--	--	--	--	--	--
Acenaphthene	83-32-9	µg/kg	1,060	SQS	Ecology Publication 03-09-088	1,320	CSL	Ecology Publication 03-09-088

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
Acenaphthylene	208-96-8	µg/kg	470	SQS	Ecology Publication 03-09-088	640	CSL	Ecology Publication 03-09-088
acetone	67-64-1	µg/kg	8.7	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Aldrin	309-00-2	µg/kg	2.0	LEL	Buchman, 2008	8.0	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Alpha-BHC	319-84-6	µg/kg	6.0	LEL	Buchman, 2008	100	SEL - Concentration in µg/g organic carbon	Buchman, 2008
alpha-Chlordane	5103-71-9	µg/kg	0.030	Dutch -target	RIVM report 711701	4,000	dutch intervention	RIVM report 711701
Aluminum	7429-90-5	µg/kg	1.40E+07	ERL	Buchman, 2008	2.50E+07	ARCS	Buchman, 2008
Anthracene	120-12-7	µg/kg	1,200	SQS	Ecology Publication 03-09-088	1,580	CSL	Ecology Publication 03-09-088
Antimony	7440-36-0	µg/kg	400	SQS	Ecology Publication 03-09-088	600	CSL	Ecology Publication 03-09-088
Aroclor-1016	12674-11-2	µg/kg	7.0	LEL	Buchman, 2008	53,000	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Aroclor-1221	11104-28-2	µg/kg	--	--	--	--	--	--
Aroclor-1232	11141-16-5	µg/kg	--	--	--	--	--	--
Aroclor-1242	53469-21-9	µg/kg	--	--	--	--	--	--
Aroclor-1248	12672-29-6	µg/kg	30	LEL	Buchman, 2008	150,000	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Aroclor-1254	11097-69-1	µg/kg	60	LEL	Buchman, 2008	340,000	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Aroclor-1260	11096-82-5	µg/kg	5.0	LEL	Buchman, 2008	240,000	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Arsenic	7440-38-2	µg/kg	14,000	SQS	Ecology Publication 11-09-054	120,000	CSL	Ecology Publication 03-09-088
Barium	7440-39-3	µg/kg	300,000		Crommentuijn 2000	--	--	--
Benzo[a]anthracene	56-55-3	µg/kg	4,260	SQS	Ecology Publication 03-09-088	5,800	CSL	Ecology Publication 03-09-088
Benzo[a]pyrene	50-32-8	µg/kg	3,300	SQS	Ecology Publication 03-09-088	4,810	CSL	Ecology Publication 03-09-088
Benzo[b]fluoranthene	205-99-2	µg/kg	11,000	SQS	Ecology Publication 03-09-088	14,000	CSL	Ecology Publication 03-09-088
Benzo[ghi]perylene	191-24-2	µg/kg	4,020	SQS	Ecology Publication 03-09-088	5,200	CSL	Ecology Publication 03-09-088
Benzo[k]fluoranthene	207-08-9	µg/kg	11,000	SQS	Ecology Publication 03-09-088	14,000	CSL	Ecology Publication 03-09-088
Beryllium	7440-41-7	µg/kg	--	--	--	--	--	--
beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	µg/kg	7.2	SQS	Ecology Publication 11-09-054	11	CSL	Ecology Publication 03-09-088
Bis[2-chloro-1-methylethyl]ether	108-60-1	µg/kg	--	--	--	--	--	--
Bis[2-Chloroethoxy]methane	111-91-1	µg/kg	--	--	--	--	--	--
Bis[2-chloroethyl] ether	111-44-4	µg/kg	--	--	--	--	--	--
Bis[2-ethylhexyl] phthalate	117-81-7	µg/kg	500	SQS	Ecology Publication 11-09-054	22,000	CSL	Ecology Publication 03-09-088
Bismuth	7440-69-9	µg/kg	--	--	--	--	--	--
Boron	7440-42-8	µg/kg	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	µg/kg	260	SQS	Ecology Publication 03-09-088	370	CSL	Ecology Publication 03-09-088
Cadmium	7440-43-9	µg/kg	2,100	SQS	Ecology Publication 11-09-054	5,400	CSL	Ecology Publication 11-09-054
Calcium	7440-70-2	µg/kg	--	--	--	--	--	--
Calculated Total Uranium	calc_tot_U	µg/kg	100,000	PNEC	Sheppard et al. 2005	--	--	--
Carbazole	86-74-8	µg/kg	900	SQS	Ecology Publication 11-09-054	1,100	CSL	Ecology Publication 11-09-054
Chloride	16887-00-6	µg/kg	--	--	--	--	--	--
Chromium	7440-47-3	µg/kg	72,000	SQS	Ecology Publication 11-09-054	88,000	CSL	Ecology Publication 11-09-054

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
Chrysene	218-01-9	µg/kg	5,940	SQS	Ecology Publication 03-09-088	6,400	CSL	Ecology Publication 03-09-088
Cobalt	7440-48-4	µg/kg	50,000	LEL	Buchman, 2008	--	--	--
Copper	7440-50-8	µg/kg	400,000	SQS	Ecology Publication 11-09-054	1.20E+06	CSL	Ecology Publication 11-09-054
Delta-BHC	319-86-8	µg/kg	12	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	2,000	dutch intervention	RIVM report 711701
Dibenz[a,h]anthracene	53-70-3	µg/kg	800	SQS	Ecology Publication 03-09-088	840	CSL	Ecology Publication 03-09-088
Dibenzofuran	132-64-9	µg/kg	200	SQS	Ecology Publication 11-09-054	680	CSL	Ecology Publication 11-09-054
Dichlorodiphenyldichloroethane	72-54-8	µg/kg	310	SQS	Ecology Publication 11-09-054	860	CSL	Ecology Publication 11-09-054
Dichlorodiphenyldichloroethylene	72-55-9	µg/kg	21	SQS	Ecology Publication 11-09-054	33	CSL	Ecology Publication 11-09-054
Dichlorodiphenyltrichloroethane	50-29-3	µg/kg	100	SQS	Ecology Publication 11-09-054	8,100	CSL	Ecology Publication 11-09-054
Dieldrin	60-57-1	µg/kg	4.9	SQS	Ecology Publication 11-09-054	9.3	CSL	Ecology Publication 11-09-054
Diethylphthalate	84-66-2	µg/kg	530	Dutch -target	RIVM report 711701	53,000	dutch intervention	RIVM report 711701
Dimethyl phthalate	131-11-3	µg/kg	46	SQS	Ecology Publication 03-09-088	440	CSL	Ecology Publication 03-09-088
Di-n-butylphthalate	84-74-2	µg/kg	380	SQS	Ecology Publication 11-09-054	1,000	CSL	Ecology Publication 11-09-054
Di-n-octylphthalate	117-84-0	µg/kg	39	SQS	Ecology Publication 11-09-054	1,100	CSL	Ecology Publication 11-09-054
Endosulfan I	959-98-8	µg/kg	5.0	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	4,000	dutch intervention	RIVM report 711701
Endosulfan II	33213-65-9	µg/kg	5.0	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Endosulfan sulfate	1031-07-8	µg/kg	5.0	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Endrin	72-20-8	µg/kg	2.2	TEC	MacDonald, 2000	207	PEC	MacDonald, 2000
Endrin aldehyde	7421-93-4	µg/kg	2.2	TEC	MacDonald, 2000	207	PEC	MacDonald, 2000
Endrin ketone	53494-70-5	µg/kg	8,500	SQS	Ecology Publication 11-09-054	--	--	--
Fluoranthene	206-44-0	µg/kg	11,000	SQS	Ecology Publication 03-09-088	15,000	CSL	Ecology Publication 03-09-088
Fluorene	86-73-7	µg/kg	1,000	SQS	Ecology Publication 03-09-088	3,000	CSL	Ecology Publication 03-09-088
Fluoride	16984-48-8	µg/kg	--	--	--	--	--	--
Gamma-BHC [Lindane]	58-89-9	µg/kg	2.4	TEC	MacDonald, 2000	5.0	PEC	MacDonald, 2000
gamma-Chlordane	5566-34-7	µg/kg	0.030	Dutch -target	RIVM report 711701	4,000	dutch intervention	RIVM report 711701
Heptachlor	76-44-8	µg/kg	68	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	4,000	dutch intervention	RIVM report 711701
Heptachlor epoxide	1024-57-3	µg/kg	2.5	TEC	MacDonald, 2000	16	PEC	MacDonald, 2000
Hexachlorobenzene	118-74-1	µg/kg	20	LEL	Buchman, 2008	240	SEL - Concentration in µg/g organic carbon	Buchman, 2008
Hexachlorobutadiene	87-68-3	µg/kg	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	µg/kg	--	--	--	--	--	--
Hexachloroethane	67-72-1	µg/kg	1,000	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Hexavalent Chromium	18540-29-9	µg/kg	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	µg/kg	4,120	SQS	Ecology Publication 03-09-088	5,300	CSL	Ecology Publication 03-09-088
Iron	7439-89-6	µg/kg	2.00E+07	LEL	Buchman, 2008	--	--	--
Isophorone	78-59-1	µg/kg	--	--	--	--	--	--
Lead	7439-92-1	µg/kg	360,000	SQS	Ecology Publication 11-09-054	1.30E+06	CSL	Ecology Publication 11-09-054
Lithium	7439-93-2	µg/kg	--	--	--	--	--	--
Magnesium	7439-95-4	µg/kg	--	--	--	--	--	--
Manganese	7439-96-5	µg/kg	460,000	LEL	Buchman, 2008	1.10E+06	SEL	Buchman, 2008
Mercury	7439-97-6	µg/kg	660	SQS	Ecology Publication 11-09-054	800	CSL	Ecology Publication 11-09-054
Methoxychlor	72-43-5	µg/kg	19	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Molybdenum	7439-98-7	µg/kg	250,000	MPC	Crommentuijn et al., 2000	--	--	--
Naphthalene	91-20-3	µg/kg	500	SQS	Ecology Publication 03-09-088	1,310	CSL	Ecology Publication 03-09-088
Nickel	7440-02-0	µg/kg	26,000	SQS	Ecology Publication 11-09-054	110,000	CSL	Ecology Publication 11-09-054
Nitrobenzene	98-95-3	µg/kg	--	--	--	--	--	--
Nitrogen in ammonia	NH3-N	µg/kg	--	--	--	--	--	--
Nitrogen in Nitrate	NO3-N	µg/kg	--	--	--	--	--	--

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
Nitrogen in Nitrite	NO2-N	µg/kg	--	--	--	--	--	--
Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	--	--	--	--	--	--
N-Nitroso-di-n-dipropylamine	621-64-7	µg/kg	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	µg/kg	--	--	--	--	--	--
PCB 126 Calculated TEQ Bird	BIRD_TEQ_PCB_126	µg/kg	--	--	--	--	--	--
PCB 126 Calculated TEQ Fish	FISH_TEQ_PCB_126	µg/kg	--	--	--	--	--	--
PCB 126 Calculated TEQ Mammal	MAMMAL_TEQ_PCB_126	µg/kg	--	--	--	--	--	--
PCB 77 Calculated TEQ Mammal	MAMMAL_TEQ_PCB_077	µg/kg	--	--	--	--	--	--
PCB 77 Calculated TEQ Bird	BIRD_TEQ_PCB_77	µg/kg	--	--	--	--	--	--
PCB 77 Calculated TEQ Fish	FISH_TEQ_PCB_77	µg/kg	--	--	--	--	--	--
Pentachlorophenol	87-86-5	µg/kg	1,200	SQS	Ecology Publication 11-09-054	1,200	CSL	Ecology Publication 11-09-054
Phenanthrene	85-01-8	µg/kg	6,100	SQS	Ecology Publication 03-09-088	7,600	CSL	Ecology Publication 03-09-088
Phenol	108-95-2	µg/kg	120	SQS	Ecology Publication 11-09-054	210	CSL	Ecology Publication 11-09-054
Phosphorus	7723-14-0	µg/kg	600,000	LEL	Buchman, 2008	2.00E+06	SEL	Buchman, 2008
Potassium	7440-09-7	µg/kg	--	--	--	--	--	--
Pyrene	129-00-0	µg/kg	8,800	SQS	Ecology Publication 03-09-088	16,000	CSL	Ecology Publication 03-09-088
Selenium	7782-49-2	µg/kg	11,000	SQS	Ecology Publication 11-09-054	20,000	CSL	Ecology Publication 11-09-054
Silicon	7440-21-3	µg/kg	--	--	--	--	--	--
Silver	7440-22-4	µg/kg	570	SQS	Ecology Publication 11-09-054	1,700	CSL	Ecology Publication 11-09-054
Sodium	7440-23-5	µg/kg	--	--	--	--	--	--
Strontium [elemental]	7440-24-6	µg/kg	--	--	--	--	--	--
Sulfate	14808-79-8	µg/kg	--	--	--	--	--	--
TEC Bird	TEC_BIRD	µg/kg	--	--	--	--	--	--
TEC Fish	TEC_FISH	µg/kg	--	--	--	--	--	--
TEC Mammal	TEC_MAMMAL	µg/kg	--	--	--	--	--	--
Thallium	7440-28-0	µg/kg	2,600		Crommentuijn et al., 2000	--	--	--
Tin	7440-31-5	µg/kg	239,000		Crommentuijn et al., 2000	2.20E+07	--	Crommentuijn et al., 2000
Titanium	7440-32-6	µg/kg	--	--	--	--	--	--
Toluene		µg/kg	50	EqP at 1% TOC using SCV	ES/ER/TM-95/R4	--	--	--
Total PCB	TOTALPCB	µg/kg	110	SQS	Ecology Publication 11-09-054	2,500	CSL	Ecology Publication 11-09-054
Total petroleum hydrocarbons	TPH	µg/kg	17,000	SQS	Ecology Publication 11-09-054	30,000	CSL	Ecology Publication 11-09-054
Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/kg	340,000	SQS	Ecology Publication 11-09-054	510,000	CSL	Ecology Publication 11-09-054
Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/kg	--	--	--	--	--	--
Total petroleum hydrocarbons - motor oil [high boi	TPH/OILH	µg/kg	--	--	--	--	--	--
Toxaphene	8001-35-2	µg/kg	0.10	TEL	MacDonald, 2000	--	--	--
Uranium [inorganic]	7440-61-1	µg/kg	100,000	PNEC	Sheppard et al., 2005	--	--	--
Vanadium	7440-62-2	µg/kg	90,000	PNEC	Environment Canada, 2010	--	--	--
Zinc	7440-66-6	µg/kg	3.20E+06	SQS	Ecology Publication 11-09-054	4.20E+06	CSL	Ecology Publication 11-09-054
Zirconium	7440-67-7	µg/kg	--	--	--	--	--	--
Americium-241	14596-10-2	pCi/g	5,150	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Antimony-124	14683-10-4	pCi/g	7,030	No BCG available; value for Sb-125 used. Riparian animal sediment	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Antimony-125	14234-35-6	pCi/g	7,030	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Barium-133	13981-41-4	pCi/g	230	No BCG available; value for Ba140 used. Riparian animal sediment	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Barium-140	14798-08-4	pCi/g	230	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
Carbon-14	14762-75-5	pCi/g	59,000	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cerium/Praseodymium-144	CE/PR-144	pCi/g	2,900	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cerium-139	CE-139	pCi/g	2,900	No BCG available; value for Ce-144 used. Riparian animal sediment	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cerium-141	13967-74-3	pCi/g	15,900	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cerium-144	14762-78-8	pCi/g	2,900	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Cesium-134	13967-70-9	pCi/g	1,480	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cesium-136	CS-136	pCi/g	1,480	No BCG available; value for Cs-134 used. Riparian animal sediment	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cesium-137	10045-97-3	pCi/g	3,120	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Chromium-51	14392-02-0	pCi/g	106,000	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cobalt-57	13981-50-5	pCi/g	1,460	No BCG available; value for Co-60 used. Riparian animal sediment	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cobalt-58	13981-38-9	pCi/g	3,800	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Cobalt-60	10198-40-0	pCi/g	1,460	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Europium-152	14683-23-9	pCi/g	3,040	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Europium-154	15585-10-1	pCi/g	2,570	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Europium-155	14391-16-3	pCi/g	31,600	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Iodine-131	10043-66-0	pCi/g	5,490	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Neptunium-237	13994-20-2	pCi/g	7,630	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Plutonium-238	13981-16-3	pCi/g	5,730	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Plutonium-239	15117-48-3	pCi/g	5,860	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Plutonium-239/240	PU-239/240	pCi/g	5,860	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Potassium-40	13966-00-2	pCi/g	4,430	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Radium-223	15623-45-7	pCi/g	88	No BCG available; value for Ra-228 used. Riparian animal sediment	DOE-STD-1153-2002	--	--	--
Radium-226	13982-63-3	pCi/g	101	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Radium-228	15262-20-1	pCi/g	88	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Selenium-75	SE-75	pCi/g	9,570	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Strontium-85	13967-73-2	pCi/g	582	No BCG available; value for Sr-90 used. Riparian animal sediment	DOE-STD-1153-2002	--	--	--
Strontium-90	10098-97-2	pCi/g	582	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Technetium-99	14133-76-7	pCi/g	42,200	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Thorium-228	14274-82-9	pCi/g	805	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Thorium-230	14269-63-7	pCi/g	10,400	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Thorium-232	TH-232	pCi/g	1,300	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Thorium-234	15065-10-8	pCi/g	4,330	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Tritium	10028-17-8	pCi/g	374,000	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Uranium [radionuclide]	U_rad	pCi/g	2,490	No BCG available; value for Ur-238 used. Riparian animal sediment	DOE-STD-1153-2002	--	--	--
Uranium-233/234	U-233/234	pCi/g	5,270	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Uranium-235	15117-96-1	pCi/g	3,730	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Uranium-236	13982-70-2	pCi/g	2,490	No BCG available; value for Ur-238 used. Riparian animal sediment	DOE-STD-1153-2002	--	--	--

Table L-5. Summary of Sediment Ecological Screening Levels

Analyte Name	CAS#	Units	Lower Threshold ESL	Lower Threshold Sediment ESL Basis	Lower Threshold ESL Source	Upper Threshold Sediment ESL	Upper Threshold ESLBasis	Upper Threshold ESL Source
Uranium-238	U-238	pCi/g	2,490	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Zinc-65	13982-39-3	pCi/g	1,430	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Zirconium/Niobium-95	ZR/NB-95	pCi/g	2,330	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Zirconium-95	13967-71-0	pCi/g	2,330	BCG riparian animal	DOE-STD-1153-2002	--	--	--
Actinium-228	14331-83-0	pCi/g	--	--	--	--	--	--
Beryllium-7	13966-02-4	pCi/g	--	--	--	--	--	--
Gross alpha	12587-46-1	pCi/g	--	--	--	--	--	--
Gross beta	12587-47-2	pCi/g	--	--	--	--	--	--
Iron-59	14596-12-4	pCi/g	--	--	--	--	--	--
Lanthanum-140	13981-28-7	pCi/g	--	--	--	--	--	--
Manganese-54	13966-31-9	pCi/g	--	--	--	--	--	--
Molybdenum-99	14119-15-4	pCi/g	--	--	--	--	--	--
Niobium-94	14681-63-1	pCi/g	--	--	--	--	--	--
Niobium-95	13967-76-5	pCi/g	--	--	--	--	--	--
Ruthenium-103	13968-53-1	pCi/g	--	--	--	--	--	--
Ruthenium-106	13967-48-1	pCi/g	--	--	--	--	--	--
Silver-110 [metastable]	AG-110M	pCi/g	--	--	--	--	--	--
Tellurium-129M	TE-129M	pCi/g	--	--	--	--	--	--
Tin-113	13966-06-8	pCi/g	NA	BCG riparian animal	RESRAD BIOTA v1.5 (DOE/EH-0676)	--	--	--
Yttrium-88	Y-88	pCi/g	--	--	--	--	--	--

Note: Complete citations for references listed in this table are provided in Section L6.

BCG = biota concentration guide
CSL = cleanup screening level
EqP = value based on the use of equilibrium partitioning principles to establish a value from a surface water criteria
ERL = effects range low
ESL = ecological screening level
LEL = lower effect level
Lower threshold ESL - More conservative value used for screening purposes and generally (but not always) based on effects to 20% or less of test organisms below which significant effects are unlikely.
MPC = maximum permissible concentration
PEC = probable effect concentration
PEL = probable effect level
PNEC = probable no effect concentration
SEL = severe effect level
SQS = sediment quality standard
TEC = threshold effect concentration
TEL = threshold effect level
TOC = total organic carbon
Upper threshold ESL - Value used for defining for decision making based on effects to a greater number of individuals and above which effects are probable

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.090	0.090	--	--	--	--	--	--
100-D Near-Shore Wells	1,1,1-Trichloroethane	71-55-6	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.067	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.098	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,1,2-Trichloroethane	79-00-5	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.063	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,1-Dichloroethane	75-34-3	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.068	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,1-Dichloroethene	75-35-4	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.051	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2,3-Trichloropropane	96-18-4	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.15	0.15	--	--	--	--	--	--
100-D Near-Shore Wells	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.70	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2,4-Trimethylbenzene	95-63-6	µg/L	N	10/8/2009	10/8/2009	2	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.41	0.41	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dibromoethane	106-93-4	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.13	0.13	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dichlorobenzene	95-50-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.90	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dichloroethane	107-06-2	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.10	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dichloroethene (Total)	540-59-0	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.13	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,2-Dichloropropane	78-87-5	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.097	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,3-Dichlorobenzene	541-73-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,4-Dichlorobenzene	106-46-7	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.12	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1,4-Dioxane	123-91-1	µg/L	N	3/24/2010	6/3/2010	6	0	0	7.6	7.6	--	--	--	--	--	--
100-D Near-Shore Wells	1,4-Naphthoquinone	130-15-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	1-Butanol	71-36-3	µg/L	N	8/10/2009	6/3/2010	10	0	0	12	100	--	--	--	--	--	--
100-D Near-Shore Wells	1-Naphthylamine	134-32-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	6.60E-07	6.70E-07	5.40E-06	5.40E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	9.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	35694-08-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	52663-79-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	7.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	42740-50-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	8.30E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5,6-Octachlorobiphenyl	52663-78-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.40E-07	5.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.70E-07	8.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',6,6'-Octachlorobiphenyl	33091-17-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.50E-07	6.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4',6-Heptachlorobiphenyl	52663-71-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,4'-Hexachlorobiphenyl	38380-07-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	52663-77-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	8.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,5',6'-Octachlorobiphenyl	52663-75-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.10E-07	8.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,5',6-Octachlorobiphenyl	68194-17-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.10E-07	8.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,5'-Heptachlorobiphenyl	52663-74-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	52663-73-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.50E-07	6.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	40186-71-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.40E-07	5.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,6-Heptachlorobiphenyl	68194-16-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,6-Heptachlorobiphenyl	52663-70-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.50E-07	9.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5',6-Heptachlorobiphenyl	40186-70-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5,6'-Heptachlorobiphenyl	38411-25-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	9.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5'-Hexachlorobiphenyl	52663-66-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,5-Hexachlorobiphenyl	55215-18-4	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.00E-06	2.00E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,6,6'-Heptachlorobiphenyl	52663-65-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	6.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,6'-Hexachlorobiphenyl	38380-05-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	8.10E-07	1.00E-06	6.50E-07	6.50E-07	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4,6-Hexachlorobiphenyl	61798-70-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',4-Pentachlorobiphenyl	52663-62-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.80E-07	1.70E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	2136-99-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.60E-07	6.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,5',6-Heptachlorobiphenyl	52663-67-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.50E-07	9.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,5'-Hexachlorobiphenyl	35694-04-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.90E-07	1.00E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,6,6'-Heptachlorobiphenyl	52663-64-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	7.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,6'-Hexachlorobiphenyl	52744-13-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.50E-07	2.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5,6-Hexachlorobiphenyl	52704-70-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',5-Pentachlorobiphenyl	60145-20-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.50E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',6,6'-Hexachlorobiphenyl	38411-22-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	1.50E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3',6-Pentachlorobiphenyl	52663-60-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.60E-07	1.70E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,3'-Tetrachlorobiphenyl	38444-93-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.20E-07	8.00E-07	8.00E-07	8.00E-07	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5,5',6-Octachlorobiphenyl	52663-76-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	7.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.50E-07	3.80E-05	9.10E-07	9.10E-07	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	74472-52-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.60E-07	6.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5,6-Heptachlorobiphenyl	74472-47-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5',6-Heptachlorobiphenyl	52663-69-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5,6'-Heptachlorobiphenyl	60145-23-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.00E-06	2.00E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',5-Hexachlorobiphenyl	35694-06-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',6,6'-Heptachlorobiphenyl	74472-48-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	7.30E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',6'-Hexachlorobiphenyl	59291-64-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4',6-Hexachlorobiphenyl	56030-56-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	9.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,4'-Pentachlorobiphenyl	65510-45-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	1.20E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5,5',6-Heptachlorobiphenyl	52712-05-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.50E-07	8.20E-07	1.00E-06	1.00E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5,5'-Hexachlorobiphenyl	52712-04-6	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.40E-07	9.60E-07	4.80E-07	4.80E-07	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5,5'-Hexachlorobiphenyl	51908-16-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.50E-07	8.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5,6,6'-Heptachlorobiphenyl	74472-49-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	7.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5,6,6'-Heptachlorobiphenyl	74487-85-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	7.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5,6'-Hexachlorobiphenyl	74472-41-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.40E-07	2.00E-06	--	--	--	--	--	--

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	2,2',3,4,5,6-Hexachlorobiphenyl	41411-61-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.00E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5,6-Hexachlorobiphenyl	68194-13-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5',6-Hexachlorobiphenyl	68194-14-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.90E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5',6-Hexachlorobiphenyl	38380-04-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5,6'-Hexachlorobiphenyl	68194-15-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5-Pentachlorobiphenyl	55312-69-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3',4,5-Pentachlorobiphenyl	41464-51-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',5-Pentachlorobiphenyl	68194-07-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.20E-06	2.20E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,6,6'-Hexachlorobiphenyl	74472-40-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',6,6'-Hexachlorobiphenyl	68194-08-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,6'-Pentachlorobiphenyl	73575-57-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.50E-07	1.60E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4,6-Pentachlorobiphenyl	55215-17-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.50E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3',4,6-Pentachlorobiphenyl	60233-25-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.00E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4',6-Pentachlorobiphenyl	68194-05-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.50E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4'-Tetrachlorobiphenyl	36559-22-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	8.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,4-Tetrachlorobiphenyl	52663-59-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.20E-07	8.00E-07	8.00E-07	8.00E-07	--	--	--	--
100-D Near-Shore Wells	2,2',3,5,5',6-Hexachlorobiphenyl	52663-63-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.50E-07	2.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,5,5'-Pentachlorobiphenyl	52663-61-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,5,6,6'-Hexachlorobiphenyl	68194-09-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,5',6-Pentachlorobiphenyl	38379-99-6	µg/L	N	10/8/2009	5/12/2010	3	2	67	1.50E-06	1.50E-06	1.60E-06	2.60E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,5,6'-Pentachlorobiphenyl	73575-55-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.50E-07	1.60E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,5,6-Pentachlorobiphenyl	73575-56-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,5'-Tetrachlorobiphenyl	41464-39-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	3.80E-06	3.80E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3,5-Tetrachlorobiphenyl	70362-46-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	7.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,6,6'-Pentachlorobiphenyl	73575-54-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	1.20E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,6'-Tetrachlorobiphenyl	41464-47-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	9.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',3,6-Tetrachlorobiphenyl	70362-45-7	µg/L	N	10/8/2009	5/12/2010	3	2	67	8.30E-07	8.30E-07	8.00E-07	1.40E-06	--	--	--	--
100-D Near-Shore Wells	2,2',3-Trichlorobiphenyl	38444-78-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	4.20E-07	1.90E-06	2.00E-06	2.00E-06	--	--	--	--
100-D Near-Shore Wells	2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,2',4,4',5,6'-Hexachlorobiphenyl	60145-22-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.80E-07	1.70E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,4',5-Pentachlorobiphenyl	38380-01-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.50E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,4',6,6'-Hexachlorobiphenyl	33979-03-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,4',6-Pentachlorobiphenyl	39485-83-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,4'-Tetrachlorobiphenyl	2437-79-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	3.80E-06	3.80E-06	--	--	--	--
100-D Near-Shore Wells	2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.20E-06	2.20E-06	--	--	--	--
100-D Near-Shore Wells	2,2',4,5,6-Pentachlorobiphenyl	68194-06-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.00E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,5',6-Pentachlorobiphenyl	60145-21-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.10E-07	1.40E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,5'-Tetrachlorobiphenyl	41464-40-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	8.50E-07	8.50E-07	--	--	--	--
100-D Near-Shore Wells	2,2',4,5-Tetrachlorobiphenyl	70362-47-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.50E-07	8.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,6,6'-Pentachlorobiphenyl	56558-16-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	1.10E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4,6'-Tetrachlorobiphenyl	68194-04-7	µg/L	N	10/8/2009	5/12/2010	3	2	67	8.30E-07	8.30E-07	8.00E-07	1.40E-06	--	--	--	--
100-D Near-Shore Wells	2,2',4,6-Tetrachlorobiphenyl	62796-65-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	7.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',4-Trichlorobiphenyl	37680-66-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	1.60E-06	3.80E-05	7.70E-07	7.70E-07	--	--	--	--
100-D Near-Shore Wells	2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.40E-06	2.40E-06	--	--	--	--
100-D Near-Shore Wells	2,2',5,6'-Tetrachlorobiphenyl	41464-41-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	7.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',5-Trichlorobiphenyl	37680-65-2	µg/L	N	10/8/2009	5/12/2010	3	1	33	1.40E-06	5.70E-05	2.30E-06	2.30E-06	--	--	--	--
100-D Near-Shore Wells	2,2',6,6'-Tetrachlorobiphenyl	15968-05-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	3.20E-07	1.70E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2',6-Trichlorobiphenyl	38444-73-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	4.20E-07	2.00E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,2'-Dichlorobiphenyl	13029-08-8	µg/L	N	10/8/2009	5/12/2010	3	2	67	5.70E-05	5.70E-05	1.80E-06	2.60E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5,5',6-Octachlorobiphenyl	74472-53-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.10E-07	4.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.10E-07	4.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5,6-Heptachlorobiphenyl	41411-64-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	6.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5',6-Heptachlorobiphenyl	74472-50-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	6.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.80E-07	8.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.80E-07	8.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4',6-Hexachlorobiphenyl	74472-42-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	6.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	µg/L	N	10/8/2009	5/12/2010	3	2	67	5.00E-07	5.00E-07	5.80E-07	9.20E-07	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5,5',6-Heptachlorobiphenyl	74472-51-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	7.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',5,5',6-Heptachlorobiphenyl	69782-91-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.50E-07	3.80E-05	9.10E-07	9.10E-07	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5,5'-Hexachlorobiphenyl	39635-35-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	7.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',5,5'-Hexachlorobiphenyl	39635-34-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	6.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5,6-Hexachlorobiphenyl	41411-62-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.00E-06	2.00E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',5,6-Hexachlorobiphenyl	74472-44-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.00E-06	2.00E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5',6-Hexachlorobiphenyl	74472-43-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	7.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',5',6-Hexachlorobiphenyl	74472-45-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.10E-07	7.30E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5-Pentachlorobiphenyl	70424-69-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2',3,3',4,5-Pentachlorobiphenyl	76842-07-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',5-Pentachlorobiphenyl	70424-68-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.10E-07	5.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,5'-Pentachlorobiphenyl	70362-41-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',4,6-Pentachlorobiphenyl	74472-35-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',4',6-Pentachlorobiphenyl	38380-03-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',4'-Tetrachlorobiphenyl	41464-43-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	5.90E-07	2.80E-07	2.80E-07	--	--	--	--
100-D Near-Shore Wells	2,3,3',4-Tetrachlorobiphenyl	74338-24-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.00E-07	6.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',5,5',6-Hexachlorobiphenyl	74472-46-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.20E-07	7.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',5,5'-Pentachlorobiphenyl	39635-32-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.20E-07	1.00E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',5,6-Pentachlorobiphenyl	74472-36-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	1.10E-06	--	--	--	--	--	--

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	2,3,3',5',6-Pentachlorobiphenyl	68194-10-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.20E-06	2.20E-06	--	--	--	--
100-D Near-Shore Wells	2,3,3',5'-Tetrachlorobiphenyl	41464-49-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	5.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',5-Tetrachlorobiphenyl	70424-67-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	5.90E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3',6-Tetrachlorobiphenyl	74472-33-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,3'-Trichlorobiphenyl	38444-84-7	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.40E-07	5.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4,4',5,6-Hexachlorobiphenyl	41411-63-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	8.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,4',5',6-Hexachlorobiphenyl	59291-65-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.10E-07	5.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2',3,4,4',5-Pentachlorobiphenyl	65510-44-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.50E-06	1.50E-06	--	--	--	--
100-D Near-Shore Wells	2,3,4,4',6-Pentachlorobiphenyl	74472-38-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4,4',6-Pentachlorobiphenyl	56558-17-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,3,4,4'-Tetrachlorobiphenyl	33025-41-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	6.00E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,4'-Tetrachlorobiphenyl	32598-10-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.70E-07	3.80E-05	5.40E-07	5.40E-07	--	--	--	--
100-D Near-Shore Wells	2',3,4,5,5'-Pentachlorobiphenyl	70424-70-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,5,5'-Pentachlorobiphenyl	68194-12-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	1.00E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2',3,4,5,6'-Pentachlorobiphenyl	74472-39-2	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.20E-07	1.20E-06	1.70E-06	1.70E-06	--	--	--	--
100-D Near-Shore Wells	2,3,4,5,6-Pentachlorobiphenyl	18259-05-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	1.20E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,5',6-Pentachlorobiphenyl	56558-18-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.30E-07	1.00E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4',5,6-Pentachlorobiphenyl	68194-11-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.60E-07	1.20E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4,5-Tetrachlorobiphenyl	33284-53-6	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2',3,4,5-Tetrachlorobiphenyl	70362-48-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4,5-Tetrachlorobiphenyl	73575-53-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	5.30E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4',5-Tetrachlorobiphenyl	74472-34-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	5.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4',5-Tetrachlorobiphenyl	32598-11-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4,5'-Tetrachlorobiphenyl	73575-52-7	µg/L	N	10/8/2009	5/12/2010	3	2	67	4.80E-07	4.80E-07	6.40E-07	3.00E-06	--	--	--	--
100-D Near-Shore Wells	2,3,4,6-Tetrachlorobiphenyl	54230-22-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',4,6-Tetrachlorobiphenyl	60233-24-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	8.50E-07	8.50E-07	--	--	--	--
100-D Near-Shore Wells	2,3,4',6-Tetrachlorobiphenyl	52663-58-8	µg/L	N	10/8/2009	5/12/2010	3	3	100	--	--	5.90E-07	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4',6-Tetrachlorobiphenyl	41464-46-4	µg/L	N	10/8/2009	5/12/2010	3	1	33	7.20E-07	8.00E-07	8.00E-07	8.00E-07	--	--	--	--
100-D Near-Shore Wells	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4-Trichlorobiphenyl	55702-46-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.30E-06	1.30E-06	--	--	--	--
100-D Near-Shore Wells	2',3,4-Trichlorobiphenyl	38444-86-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.30E-06	1.30E-06	--	--	--	--
100-D Near-Shore Wells	2,3',4-Trichlorobiphenyl	55712-37-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,4'-Trichlorobiphenyl	38444-85-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	6.70E-07	6.70E-07	--	--	--	--
100-D Near-Shore Wells	2,3',5,5'-Tetrachlorobiphenyl	41464-42-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	5.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,5,6-Tetrachlorobiphenyl	33284-54-7	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	3.80E-06	3.80E-06	--	--	--	--
100-D Near-Shore Wells	2,3',5',6-Tetrachlorobiphenyl	74338-23-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.40E-07	7.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3,5-Trichlorobiphenyl	55720-44-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2',3,5-Trichlorobiphenyl	37680-68-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.60E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',5-Trichlorobiphenyl	38444-81-4	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.00E-07	5.40E-07	3.30E-07	3.30E-07	--	--	--	--
100-D Near-Shore Wells	2,3,6-Trichlorobiphenyl	55702-45-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.90E-07	1.30E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3',6-Trichlorobiphenyl	38444-76-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	2.50E-07	1.20E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,3'-Dichlorobiphenyl	25569-80-6	µg/L	N	10/8/2009	5/12/2010	3	2	67	3.80E-05	3.80E-05	8.50E-07	2.40E-06	--	--	--	--
100-D Near-Shore Wells	2,3-Dichlorobiphenyl	16605-91-7	µg/L	N	10/8/2009	5/12/2010	3	2	67	7.80E-07	7.80E-07	8.90E-07	1.50E-06	--	--	--	--
100-D Near-Shore Wells	2,4,4',5-Tetrachlorobiphenyl	32690-93-0	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.80E-06	1.80E-06	--	--	--	--
100-D Near-Shore Wells	2,4,4',6-Tetrachlorobiphenyl	32598-12-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	2,4,4'-Trichlorobiphenyl	7012-37-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.90E-06	1.90E-06	--	--	--	--
100-D Near-Shore Wells	2,4,5-Trichlorobiphenyl	15862-07-4	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.00E-07	5.40E-07	3.30E-07	3.30E-07	--	--	--	--
100-D Near-Shore Wells	2,4',5-Trichlorobiphenyl	16606-02-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	2.40E-06	2.40E-06	--	--	--	--
100-D Near-Shore Wells	2,4,5-Trichlorophenol	95-95-4	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,4,6-Trichlorobiphenyl	35693-92-6	µg/L	N	10/8/2009	5/12/2010	3	1	33	1.40E-06	5.70E-05	2.30E-06	2.30E-06	--	--	--	--
100-D Near-Shore Wells	2,4',6-Trichlorobiphenyl	38444-77-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	1.10E-06	3.80E-05	8.10E-07	8.10E-07	--	--	--	--
100-D Near-Shore Wells	2,4,6-Trichlorophenol	88-06-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,4'-Dichlorobiphenyl	34883-43-7	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.70E-05	5.70E-05	2.80E-06	2.80E-06	--	--	--	--
100-D Near-Shore Wells	2,4-Dichlorobiphenyl	33284-50-3	µg/L	N	10/8/2009	5/12/2010	3	1	33	1.90E-06	3.80E-05	3.00E-06	3.00E-06	--	--	--	--
100-D Near-Shore Wells	2,4-Dichlorophenol	120-83-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,4-Dimethylphenol	105-67-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,4-Dinitrophenol	51-28-5	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,4-Dinitrotoluene	121-14-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,5-Dichlorobiphenyl	34883-39-1	µg/L	N	10/8/2009	5/12/2010	3	2	67	3.50E-06	3.50E-06	3.60E-07	1.50E-06	--	--	--	--
100-D Near-Shore Wells	2,6-Dichlorobiphenyl	33146-45-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	8.10E-07	3.70E-06	--	--	--	--	--	--
100-D Near-Shore Wells	2,6-Dichlorophenol	87-65-0	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2,6-Dinitrotoluene	606-20-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	2.2	--	--	--	--	--	--
100-D Near-Shore Wells	2-Acetylaminofluorene	53-96-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Butanone	78-93-3	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.52	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Butoxyethanol	111-76-2	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.80	0.80	--	--	--	--	--	--
100-D Near-Shore Wells	2-Chloronaphthalene	91-58-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.80	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Chlorophenol	95-57-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Hexanone	591-78-6	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.22	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Methylnaphthalene	91-57-6	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.80	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Monochlorobiphenyl	2051-60-7	µg/L	N	10/8/2009	5/12/2010	3	1	33	2.50E-07	3.80E-05	1.00E-06	1.00E-06	--	--	--	--
100-D Near-Shore Wells	2-Naphthylamine	91-59-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Nitroaniline	88-74-4	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	2-Nitrophenol	88-75-5	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	2-Picoline	109-06-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	1.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.40E-07	5.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,4',5-Pentachlorobiphenyl	57465-28-8	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.10E-07	5.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.80E-07	5.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,5,5'-Pentachlorobiphenyl	39635-33-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.30E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,5'-Tetrachlorobiphenyl	41464-48-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	5.40E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4,5-Tetrachlorobiphenyl	70362-49-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.90E-07	6.10E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',4-Trichlorobiphenyl	37680-69-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',5,5'-Tetrachlorobiphenyl	33284-52-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	5.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3',5-Trichlorobiphenyl	38444-87-0	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.30E-07	5.50E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	3,3'-Dichlorobiphenyl	2050-67-1	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.70E-05	5.70E-05	8.60E-06	8.60E-06	--	--	--	--
100-D Near-Shore Wells	3,3'-Dimethylbenzidine	119-93-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	2.6	2.6	--	--	--	--	--	--
100-D Near-Shore Wells	3,4,4',5-Tetrachlorobiphenyl	70362-50-4	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.70E-07	5.70E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,4,4'-Trichlorobiphenyl	38444-90-5	µg/L	N	10/8/2009	5/12/2010	3	1	33	5.70E-07	3.80E-05	5.10E-07	5.10E-07	--	--	--	--
100-D Near-Shore Wells	3,4,5-Trichlorobiphenyl	53555-66-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.40E-07	5.80E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,4',5-Trichlorobiphenyl	38444-88-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	1.20E-07	5.20E-07	--	--	--	--	--	--
100-D Near-Shore Wells	3,4'-Dichlorobiphenyl	2974-90-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	7.40E-07	5.70E-05	--	--	--	--	--	--
100-D Near-Shore Wells	3,4-Dichlorobiphenyl	2974-92-7	µg/L	N	10/8/2009	5/12/2010	3	0	0	7.40E-07	5.70E-05	--	--	--	--	--	--
100-D Near-Shore Wells	3,5-Dichlorobiphenyl	34883-41-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	6.30E-07	2.90E-06	--	--	--	--	--	--
100-D Near-Shore Wells	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.60	0.60	--	--	--	--	--	--
100-D Near-Shore Wells	3-Methylcholanthrene	56-49-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	3-Monochlorobiphenyl	2051-61-8	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.00E-07	3.80E-05	8.80E-07	8.80E-07	--	--	--	--
100-D Near-Shore Wells	3-Nitroaniline	99-09-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4,4'-Dichlorobiphenyl	2050-68-2	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.80E-05	3.80E-05	1.20E-06	1.20E-06	--	--	--	--
100-D Near-Shore Wells	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.70	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Aminobiphenyl	92-67-1	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Bromophenylphenyl ether	101-55-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Chloro-3-methylphenol	59-50-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Chloroaniline	106-47-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Methyl-2-pentanone	108-10-1	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.12	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Methylphenol (cresol, p-)	106-44-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	10	10	--	--	--	--	--	--
100-D Near-Shore Wells	4-Monochlorobiphenyl	2051-62-9	µg/L	N	10/8/2009	5/12/2010	3	1	33	3.70E-07	3.80E-05	8.50E-07	8.50E-07	--	--	--	--
100-D Near-Shore Wells	4-Nitroaniline	100-01-6	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Nitrophenol	100-02-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	4-Nitroquinoline-1-oxide	56-57-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	5.0	5.0	--	--	--	--	--	--
100-D Near-Shore Wells	5-Nitro-o-toluidine	99-55-8	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	7,12-Dimethylbenz[a]anthracene	57-97-6	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Acenaphthene	83-32-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.30	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Acenaphthylene	208-96-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.28	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Acetonitrile	75-05-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Acetophenone	98-86-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Acrolein	107-02-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	2.8	2.8	--	--	--	--	--	--
100-D Near-Shore Wells	Alkalinity	ALKALINITY	µg/L	N	11/14/2006	6/3/2010	14	14	100	--	--	73,000	120,000	--	--	147,127	--
100-D Near-Shore Wells	Allyl chloride	107-05-1	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.091	0.11	--	--	--	--	--	--
100-D Near-Shore Wells	alpha,alpha-Dimethylphenethylamine	122-09-8	µg/L	N	3/24/2010	6/3/2010	4	0	0	22	22	--	--	--	--	--	--
100-D Near-Shore Wells	Ammonia	7664-41-7	µg/L	N	11/19/2008	11/19/2008	1	1	100	--	--	17	17	--	--	113	--
100-D Near-Shore Wells	Ammonium ion	14798-03-9	µg/L	N	11/19/2008	3/1/2010	6	3	50	24	103	25	49	--	--	--	--
100-D Near-Shore Wells	Aniline	62-53-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Anthracene	120-12-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.014	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Aramite	140-57-8	µg/L	N	3/24/2010	6/3/2010	4	0	0	20	20	--	--	--	--	--	--
100-D Near-Shore Wells	Aroclor-1262	37324-23-5	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.093	0.093	--	--	--	--	--	--
100-D Near-Shore Wells	Aroclor-1268	11100-14-4	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.093	0.093	--	--	--	--	--	--
100-D Near-Shore Wells	Azobenzene	103-33-3	µg/L	N	5/12/2010	6/3/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzene	71-43-2	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.045	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzo(a)anthracene	56-55-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.021	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzo(a)pyrene	50-32-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.044	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzo(b)fluoranthene	205-99-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.022	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzo(ghi)perylene	191-24-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.063	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzo(k)fluoranthene	207-08-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.026	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzoic acid	65-85-0	µg/L	N	10/8/2009	10/8/2009	2	0	0	5.0	5.0	--	--	--	--	--	--
100-D Near-Shore Wells	Benzothiazole	95-16-9	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Benzyl alcohol	100-51-6	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Beryllium	7440-41-7	µg/L	N	11/8/2006	2/23/2011	36	1	2.8	0.050	4.0	1.1	1.1	--	--	2.3	--
100-D Near-Shore Wells	Beryllium	7440-41-7	µg/L	Y	11/8/2006	2/23/2011	37	1	2.7	0.050	4.0	0.13	0.13	--	--	2.3	--
100-D Near-Shore Wells	Beryllium-7	13966-02-4	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-3.60E+01	17	--	--	--	--	8.6	--
100-D Near-Shore Wells	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.80	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Bismuth	7440-69-9	µg/L	N	3/24/2010	6/3/2010	6	0	0	23	23	--	--	--	--	--	--
100-D Near-Shore Wells	Bismuth	7440-69-9	µg/L	Y	3/24/2010	6/3/2010	6	0	0	23	23	--	--	--	--	--	--
100-D Near-Shore Wells	Boron	7440-42-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	19	19	--	--	--	--	36	--
100-D Near-Shore Wells	Boron	7440-42-8	µg/L	Y	3/24/2010	6/3/2010	6	1	17	19	19	29	29	--	--	36	--
100-D Near-Shore Wells	Bromide	24959-67-9	µg/L	N	3/24/2010	6/3/2010	6	2	33	90	450	266	285	--	--	124	2
100-D Near-Shore Wells	Bromodichloromethane	75-27-4	µg/L	N	10/7/2009	6/3/2010	9	1	11	0.082	1.0	0.68	0.68	--	--	--	--

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	Bromoform	75-25-2	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.094	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Bromomethane	74-83-9	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.084	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Butylbenzylphthalate	85-68-7	µg/L	N	10/8/2009	6/3/2010	6	1	17	0.50	1.0	1.4	1.4	--	--	--	--
100-D Near-Shore Wells	Calcium	7440-70-2	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	28,500	187,000	--	--	52,644	25
100-D Near-Shore Wells	Calcium	7440-70-2	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	26,800	184,000	--	--	52,644	25
100-D Near-Shore Wells	Carbazole	86-74-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Carbon disulfide	75-15-0	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.050	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Carbon tetrachloride	56-23-5	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.063	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Chlorobenzene	108-90-7	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.15	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Chlorobenzilate	510-15-6	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Chloroethane	75-00-3	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.085	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Chloromethane	74-87-3	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.077	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Chloroprene	126-99-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.086	0.097	--	--	--	--	--	--
100-D Near-Shore Wells	Chrysene	218-01-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.015	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.083	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	cis-1,3-Dichloropropene	10061-01-5	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.073	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Cyclohexanone	108-94-1	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Decane	124-18-5	µg/L	N	10/8/2009	10/8/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Diallate	2303-16-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dibenz[a,h]anthracene	53-70-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.053	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dibenzofuran	132-64-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dibromochloromethane	124-48-1	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.057	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dibromomethane	74-95-3	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.21	0.21	--	--	--	--	--	--
100-D Near-Shore Wells	Dibutyl Butylphosphonate	78-46-6	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Dichlorodifluoromethane	75-71-8	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.070	0.084	--	--	--	--	--	--
100-D Near-Shore Wells	Didodecyl phthalate	2432-90-8	µg/L	N	10/8/2009	10/8/2009	1	1	100	--	--	3.0	3.0	--	--	--	--
100-D Near-Shore Wells	Diethylphthalate	84-66-2	µg/L	N	10/8/2009	6/3/2010	6	1	17	1.0	1.0	2.0	2.0	--	--	--	--
100-D Near-Shore Wells	Dimethoate	60-51-5	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dimethyl phthalate	131-11-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Di-n-butylphthalate	84-74-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Di-n-octylphthalate	117-84-0	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.90	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Diphenylamine	122-39-4	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Dissolved oxygen	DO	µg/L	N	2/6/2006	2/23/2011	95	95	100	--	--	250	9,690	--	--	--	--
100-D Near-Shore Wells	Disulfoton	298-04-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Dodecane	112-40-3	µg/L	N	10/8/2009	10/8/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Ethyl cyanide	107-12-0	µg/L	N	8/10/2009	6/3/2010	10	0	0	1.2	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Ethyl methacrylate	97-63-2	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.11	0.11	--	--	--	--	--	--
100-D Near-Shore Wells	Ethyl methanesulfonate	62-50-0	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Ethylbenzene	100-41-4	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.086	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Famphur	52-85-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.7	1.7	--	--	--	--	--	--
100-D Near-Shore Wells	Fluoranthene	206-44-0	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.045	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Fluorene	86-73-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.020	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Gross alpha	12587-46-1	pCi/L	N	11/8/2006	2/23/2011	20	1	5.0	-2.30E+00	3.6	2.4	2.4	--	--	--	--
100-D Near-Shore Wells	Gross beta	12587-47-2	pCi/L	N	11/8/2006	2/23/2011	20	14	70	2.4	5.9	2.5	43	--	--	3.1	13
100-D Near-Shore Wells	Hexachlorobenzene	118-74-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.60	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Hexachlorobutadiene	87-68-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.90	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Hexachlorocyclopentadiene	77-47-4	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.80	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Hexachloroethane	67-72-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.80	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Hexachlorophene	70-30-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	10	10	--	--	--	--	--	--
100-D Near-Shore Wells	Hexachloropropene	1888-71-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.040	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Iodomethane	74-88-4	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.092	0.092	--	--	--	--	--	--
100-D Near-Shore Wells	Isobutyl alcohol	78-83-1	µg/L	N	3/24/2010	6/3/2010	6	0	0	8.7	8.7	--	--	--	--	--	--
100-D Near-Shore Wells	Isodrin	465-73-6	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Isophorone	78-59-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Isosafrole	120-58-1	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.3	1.3	--	--	--	--	--	--
100-D Near-Shore Wells	Kepone	143-50-0	µg/L	N	3/24/2010	6/3/2010	4	0	0	20	20	--	--	--	--	--	--
100-D Near-Shore Wells	Lithium	7439-93-2	µg/L	N	3/24/2010	6/3/2010	6	4	67	4.0	4.0	6.2	55	--	--	11,321	--
100-D Near-Shore Wells	Lithium	7439-93-2	µg/L	Y	3/24/2010	6/3/2010	6	4	67	4.0	4.0	6.8	57	--	--	11,321	--
100-D Near-Shore Wells	Magnesium	7439-95-4	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	4,090	42,200	--	--	24,816	5
100-D Near-Shore Wells	Magnesium	7439-95-4	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	3,940	41,700	--	--	24,816	6
100-D Near-Shore Wells	m-Dinitrobenzene	99-65-0	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Methacrylonitrile	126-98-7	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.050	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Methapyrilene	91-80-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.3	1.3	--	--	--	--	--	--
100-D Near-Shore Wells	Methyl methacrylate	80-62-6	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.26	0.26	--	--	--	--	--	--
100-D Near-Shore Wells	Methyl methanesulfonate	66-27-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Methyl parathion	298-00-0	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Methylene chloride	75-09-2	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.11	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Molybdenum	7439-98-7	µg/L	N	3/24/2010	6/3/2010	6	6	100	--	--	0.78	1.8	--	--	3.2	--
100-D Near-Shore Wells	Molybdenum	7439-98-7	µg/L	Y	3/24/2010	6/3/2010	6	6	100	--	--	0.71	1.9	--	--	3.2	--
100-D Near-Shore Wells	Naphthalene	91-20-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.40	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Nitrobenzene	98-95-3	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Nitrosopyrrolidine	930-55-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosodimethylamine	55-18-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosodimethylamine	62-75-9	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosodi-n-butylamine	924-16-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--

Table L-6. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosodiphenylamine	86-30-6	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosomethylethylamine	10595-95-6	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosomorpholine	59-89-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Nitrosopiperidine	100-75-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	n-Octadecane	593-45-3	µg/L	N	10/8/2009	10/8/2009	1	1	100	--	--	8.9	8.9	--	--	--	--
100-D Near-Shore Wells	O,O,O-Triethyl phosphorothioate	126-68-1	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	o-Toluidine	95-53-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Oxidation Reduction Potential	EH	mV	N	2/6/2006	6/3/2010	46	46	100	--	--	30	460	--	--	--	--
100-D Near-Shore Wells	Parathion	56-38-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	p-Dimethylaminoazobenzene	60-11-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pentachlorobenzene	608-93-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pentachloroethane	76-01-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pentachloronitrobenzene (PCNB)	82-68-8	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	pH Measurement	PH	unitless	N	1/16/2006	3/22/2011	148	148	100	--	--	7.2	8.5	--	--	8.2	12
100-D Near-Shore Wells	Phenacetin	62-44-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Phenanthrene	85-01-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.025	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Phenol	108-95-2	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.90	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Phorate	298-02-2	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Potassium	7440-09-7	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	2,250	43,600	--	--	9,122	11
100-D Near-Shore Wells	Potassium	7440-09-7	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	1,510	28,200	--	--	9,122	12
100-D Near-Shore Wells	p-Phenylenediamine	106-50-3	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pronamide	23950-58-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pyrene	129-00-0	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.023	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Pyridine	110-86-1	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.90	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Ruthenium-106	13967-48-1	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-3.10E+01	19	--	--	--	--	128	--
100-D Near-Shore Wells	Safrol	94-59-7	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Silicon	7440-21-3	µg/L	N	3/24/2010	6/3/2010	6	6	100	--	--	12,800	15,400	--	--	33,949	--
100-D Near-Shore Wells	Silicon	7440-21-3	µg/L	Y	3/24/2010	6/3/2010	6	6	100	--	--	12,800	15,200	--	--	33,949	--
100-D Near-Shore Wells	Sodium	7440-23-5	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	3,730	69,300	--	--	26,998	10
100-D Near-Shore Wells	Sodium	7440-23-5	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	3,580	47,000	--	--	26,998	8
100-D Near-Shore Wells	Specific Conductance	CONDUCT	µS/cm	N	1/16/2006	3/22/2011	148	148	100	--	--	157	1,254	--	--	541,000	--
100-D Near-Shore Wells	Specific Conductance	CONDUCT	µS/cm	Y	1/16/2006	3/7/2006	9	9	100	--	--	170	1,021	--	--	541,000	--
100-D Near-Shore Wells	Strontium	7440-24-6	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	107	1,340	--	--	323	23
100-D Near-Shore Wells	Strontium	7440-24-6	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	104	1,310	--	--	323	23
100-D Near-Shore Wells	Styrene	100-42-5	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.036	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Sulfate	14808-79-8	µg/L	N	2/6/2006	2/23/2011	104	104	100	--	--	10,000	549,000	--	--	47,014	80
100-D Near-Shore Wells	sym-Trinitrobenzene	99-35-4	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Temperature	TEMPERATURE	Deg C	N	1/16/2006	3/22/2011	148	148	100	--	--	11	149	--	--	--	--
100-D Near-Shore Wells	Tetrachloroethene	127-18-4	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.088	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Tetradecane	629-59-4	µg/L	N	10/8/2009	10/8/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	µg/L	N	3/24/2010	6/3/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Tetrahydrofuran	109-99-9	µg/L	N	8/10/2009	6/3/2010	10	0	0	1.1	2.0	--	--	--	--	--	--
100-D Near-Shore Wells	Thallium	7440-28-0	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.050	0.10	--	--	--	--	1.7	--
100-D Near-Shore Wells	Thallium	7440-28-0	µg/L	Y	10/7/2009	6/3/2010	9	1	11	0.050	0.10	0.32	0.32	--	--	1.7	--
100-D Near-Shore Wells	Tin	7440-31-5	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.10	0.10	--	--	--	--	22	--
100-D Near-Shore Wells	Tin	7440-31-5	µg/L	Y	3/24/2010	6/3/2010	6	1	17	0.10	0.10	0.38	0.38	--	--	22	--
100-D Near-Shore Wells	Toluene	108-88-3	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.062	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Total cresols	1319-77-3	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.083	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	trans-1,3-Dichloropropene	10061-02-6	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.083	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.29	0.29	--	--	--	--	--	--
100-D Near-Shore Wells	Tributyl phosphate	126-73-8	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Trichloromonofluoromethane	75-69-4	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.041	0.11	--	--	--	--	--	--
100-D Near-Shore Wells	Tris-2-chloroethyl phosphate	115-96-8	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-D Near-Shore Wells	Turbidity	TURBIDITY	NTU	N	1/16/2006	3/22/2011	148	148	100	--	--	0.11	33	--	--	--	--
100-D Near-Shore Wells	Vinyl acetate	108-05-4	µg/L	N	3/24/2010	6/3/2010	6	0	0	0.17	0.18	--	--	--	--	--	--
100-D Near-Shore Wells	Vinyl chloride	75-01-4	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.032	1.0	--	--	--	--	--	--
100-D Near-Shore Wells	Xylenes (total)	1330-20-7	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.11	1.0	--	--	--	--	--	--

Table L-7. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.090	--	--	--	--	--	--
100-D Aquifer Tubes	1,1,1-Trichloroethane	71-55-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.069	0.069	--	--	--	--	--	--
100-D Aquifer Tubes	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.098	0.098	--	--	--	--	--	--
100-D Aquifer Tubes	1,1,2-Trichloroethane	79-00-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.15	0.15	--	--	--	--	--	--
100-D Aquifer Tubes	1,1-Dichloroethane	75-34-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.068	0.068	--	--	--	--	--	--
100-D Aquifer Tubes	1,1-Dichloroethene	75-35-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.083	0.083	--	--	--	--	--	--
100-D Aquifer Tubes	1,2,3-Trichloropropane	96-18-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.15	0.15	--	--	--	--	--	--
100-D Aquifer Tubes	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.41	0.41	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dibromoethane	106-93-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.13	0.13	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dichlorobenzene	95-50-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dichloroethane	107-06-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.10	0.10	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dichloroethene (Total)	540-59-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.15	0.15	--	--	--	--	--	--
100-D Aquifer Tubes	1,2-Dichloropropane	78-87-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.097	0.097	--	--	--	--	--	--
100-D Aquifer Tubes	1,3-Dichlorobenzene	541-73-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	1,4-Dichlorobenzene	106-46-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.12	0.12	--	--	--	--	--	--
100-D Aquifer Tubes	1,4-Dioxane	123-91-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	7.6	7.6	--	--	--	--	--	--
100-D Aquifer Tubes	1,4-Naphthoquinone	130-15-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	1-Butanol	71-36-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	12	12	--	--	--	--	--	--
100-D Aquifer Tubes	1-Naphthylamine	134-32-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4,5-Trichlorophenol	95-95-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4,6-Trichlorophenol	88-06-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4-Dichlorophenol	120-83-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4-Dimethylphenol	105-67-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4-Dinitrophenol	51-28-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,4-Dinitrotoluene	121-14-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,6-Dichlorophenol	87-65-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2,6-Dinitrotoluene	606-20-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.2	2.2	--	--	--	--	--	--
100-D Aquifer Tubes	2-Acetylaminofluorene	53-96-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Butanone	78-93-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.52	0.52	--	--	--	--	--	--
100-D Aquifer Tubes	2-Chloronaphthalene	91-58-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Chlorophenol	95-57-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Hexanone	591-78-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.22	0.22	--	--	--	--	--	--
100-D Aquifer Tubes	2-Methylnaphthalene	91-57-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Naphthylamine	91-59-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Nitroaniline	88-74-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Nitrophenol	88-75-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	2-Picoline	109-06-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	3,3'-Dimethylbenzidine	119-93-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.6	2.6	--	--	--	--	--	--
100-D Aquifer Tubes	3-Methylcholanthrene	56-49-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	3-Nitroaniline	99-09-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	--	--	--	--
100-D Aquifer Tubes	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.020	--	--	--	--	--	--
100-D Aquifer Tubes	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Aminobiphenyl	92-67-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Bromophenylphenyl ether	101-55-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Chloro-3-methylphenol	59-50-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Chloroaniline	106-47-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Methyl-2-pentanone	108-10-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.12	0.12	--	--	--	--	--	--
100-D Aquifer Tubes	4-Methylphenol (cresol, p-)	106-44-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	10	10	--	--	--	--	--	--
100-D Aquifer Tubes	4-Nitroaniline	100-01-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Nitrophenol	100-02-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	4-Nitroquinoline-1-oxide	56-57-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	5.0	5.0	--	--	--	--	--	--
100-D Aquifer Tubes	5-Nitro-o-toluidine	99-55-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	7,12-Dimethylbenz[a]anthracene	57-97-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Acenaphthene	83-32-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--

Table L-7. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	Acenaphthylene	208-96-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Acetonitrile	75-05-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	Acetophenone	98-86-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Acrolein	107-02-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.8	2.8	--	--	--	--	--	--
100-D Aquifer Tubes	Allyl chloride	107-05-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.11	0.11	--	--	--	--	--	--
100-D Aquifer Tubes	alpha,alpha-Dimethylphenethylamine	122-09-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	22	22	--	--	--	--	--	--
100-D Aquifer Tubes	Alpha-BHC	319-84-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	--	--	--	--
100-D Aquifer Tubes	Aniline	62-53-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Anthracene	120-12-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Aramite	140-57-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	20	20	--	--	--	--	--	--
100-D Aquifer Tubes	Azobenzene	103-33-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzene	71-43-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.064	0.064	--	--	--	--	--	--
100-D Aquifer Tubes	Benzo(a)anthracene	56-55-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzo(a)pyrene	50-32-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzo(b)fluoranthene	205-99-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzo(ghi)perylene	191-24-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzo(k)fluoranthene	207-08-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Benzyl alcohol	100-51-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Beryllium	7440-41-7	µg/L	N	1/3/2006	2/18/2011	64	4	6.3	0.050	4.0	0.069	0.41	--	--	2.3	--
100-D Aquifer Tubes	Beryllium	7440-41-7	µg/L	Y	1/12/2006	2/18/2011	62	0	0	0.050	4.0	--	--	--	--	2.3	--
100-D Aquifer Tubes	Beryllium-7	13966-02-4	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-1.30E+02	340	--	--	--	--	8.6	--
100-D Aquifer Tubes	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.013	--	--	--	--	--	--
100-D Aquifer Tubes	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Bromide	24959-67-9	µg/L	N	1/3/2006	9/15/2008	25	7	28	45	600	65	186	--	--	124	1
100-D Aquifer Tubes	Bromodichloromethane	75-27-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.088	0.088	--	--	--	--	--	--
100-D Aquifer Tubes	Bromoform	75-25-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.17	0.17	--	--	--	--	--	--
100-D Aquifer Tubes	Bromomethane	74-83-9	µg/L	N	7/23/2010	12/14/2010	12	5	42	0.13	0.25	0.45	0.68	--	--	--	--
100-D Aquifer Tubes	Butylbenzylphthalate	85-68-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Calcium	7440-70-2	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	18,200	270,000	--	--	52,644	32
100-D Aquifer Tubes	Calcium	7440-70-2	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	18,800	278,000	--	--	52,644	31
100-D Aquifer Tubes	Carbazole	86-74-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Carbon disulfide	75-15-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.051	0.051	--	--	--	--	--	--
100-D Aquifer Tubes	Carbon tetrachloride	56-23-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.12	0.12	--	--	--	--	--	--
100-D Aquifer Tubes	Chlorobenzene	108-90-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.15	0.15	--	--	--	--	--	--
100-D Aquifer Tubes	Chlorobenzilate	510-15-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Chloroethane	75-00-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.099	0.099	--	--	--	--	--	--
100-D Aquifer Tubes	Chloromethane	74-87-3	µg/L	N	7/23/2010	12/14/2010	12	6	50	0.077	0.077	0.14	0.30	--	--	--	--
100-D Aquifer Tubes	Chloroprene	126-99-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.097	0.097	--	--	--	--	--	--
100-D Aquifer Tubes	Chrysene	218-01-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.087	0.087	--	--	--	--	--	--
100-D Aquifer Tubes	cis-1,3-Dichloropropene	10061-01-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.073	0.073	--	--	--	--	--	--
100-D Aquifer Tubes	Delta-BHC	319-86-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	--	--	--	--
100-D Aquifer Tubes	Diallate	2303-16-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dibenz[a,h]anthracene	53-70-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dibenzofuran	132-64-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dibromochloromethane	124-48-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.13	0.13	--	--	--	--	--	--
100-D Aquifer Tubes	Dibromomethane	74-95-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.21	0.21	--	--	--	--	--	--
100-D Aquifer Tubes	Dichlorodifluoromethane	75-71-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.084	0.084	--	--	--	--	--	--
100-D Aquifer Tubes	Diethylphthalate	84-66-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dimethoate	60-51-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dimethyl phthalate	131-11-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Di-n-butylphthalate	84-74-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Di-n-octylphthalate	117-84-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	Dissolved oxygen	DO	µg/L	N	1/12/2006	3/18/2011	388	388	100	--	--	1,370	#######	--	--	--	--
100-D Aquifer Tubes	Dissolved oxygen	DO	µg/L	Y	12/6/2006	11/12/2009	28	28	100	--	--	3,200	11,500	--	--	--	--
100-D Aquifer Tubes	Disulfoton	298-04-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Endosulfan sulfate	1031-07-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	--	--	--	--

Table L-7. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	Endrin aldehyde	7421-93-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	--	--	--	--
100-D Aquifer Tubes	Ethyl cyanide	107-12-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.4	1.4	--	--	--	--	--	--
100-D Aquifer Tubes	Ethyl methacrylate	97-63-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.11	0.11	--	--	--	--	--	--
100-D Aquifer Tubes	Ethyl methanesulfonate	62-50-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Ethylbenzene	100-41-4	µg/L	N	7/23/2010	12/14/2010	12	1	8.3	0.086	0.086	0.11	0.11	--	--	--	--
100-D Aquifer Tubes	Famphur	52-85-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.7	1.7	--	--	--	--	--	--
100-D Aquifer Tubes	Fluoranthene	206-44-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Fluorene	86-73-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Gross alpha	12587-46-1	pCi/L	N	9/15/2008	12/14/2010	10	0	0	0.058	2.5	--	--	--	--	--	--
100-D Aquifer Tubes	Gross beta	12587-47-2	pCi/L	N	9/15/2008	12/14/2010	10	9	90	2.5	2.5	3.4	12	--	--	3.1	9
100-D Aquifer Tubes	Hexachlorobenzene	118-74-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Hexachlorobutadiene	87-68-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Hexachlorocyclopentadiene	77-47-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Hexachloroethane	67-72-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Hexachlorophene	70-30-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	10	10	--	--	--	--	--	--
100-D Aquifer Tubes	Hexachloropropene	1888-71-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Iodomethane	74-88-4	µg/L	N	7/23/2010	12/14/2010	12	3	25	0.092	0.092	0.34	0.46	--	--	--	--
100-D Aquifer Tubes	Isobutyl alcohol	78-83-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	8.7	8.7	--	--	--	--	--	--
100-D Aquifer Tubes	Isodrin	465-73-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Isophorone	78-59-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Isosafrole	120-58-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.3	1.3	--	--	--	--	--	--
100-D Aquifer Tubes	Kepone	143-50-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	20	20	--	--	--	--	--	--
100-D Aquifer Tubes	Magnesium	7439-95-4	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	3,850	51,600	--	--	24,816	4
100-D Aquifer Tubes	Magnesium	7439-95-4	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	3,860	53,400	--	--	24,816	5
100-D Aquifer Tubes	m-Dinitrobenzene	99-65-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Methacrylonitrile	126-98-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.50	0.50	--	--	--	--	--	--
100-D Aquifer Tubes	Methapyrilene	91-80-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.3	1.3	--	--	--	--	--	--
100-D Aquifer Tubes	Methyl methacrylate	80-62-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.26	0.26	--	--	--	--	--	--
100-D Aquifer Tubes	Methyl methanesulfonate	66-27-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Methyl parathion	298-00-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Methylene chloride	75-09-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.11	0.11	--	--	--	--	--	--
100-D Aquifer Tubes	Naphthalene	91-20-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Nitrobenzene	98-95-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Nitrosopyrrolidine	930-55-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosodimethylamine	55-18-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosodimethylamine	62-75-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosodi-n-butylamine	924-16-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosodiphenylamine	86-30-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosomethylethylamine	10595-95-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosomorpholine	59-89-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	n-Nitrosopiperidine	100-75-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	O,O,O-Triethyl phosphorothioate	126-68-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	o-Toluidine	95-53-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Oxidation Reduction Potential	EH	mV	N	1/12/2006	3/18/2011	380	380	100	--	--	5.7	716	--	--	--	--
100-D Aquifer Tubes	Oxidation Reduction Potential	EH	mV	Y	12/6/2006	11/12/2009	29	29	100	--	--	132	286	--	--	--	--
100-D Aquifer Tubes	Parathion	56-38-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	p-Dimethylaminoazobenzene	60-11-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pentachlorobenzene	608-93-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pentachloroethane	76-01-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pentachloronitrobenzene (PCNB)	82-68-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	pH Measurement	PH	unitless	N	1/12/2006	3/18/2011	388	388	100	--	--	4.1	8.8	--	--	8.2	4
100-D Aquifer Tubes	pH Measurement	PH	unitless	Y	12/6/2006	11/12/2009	29	29	100	--	--	6.7	7.9	--	--	8.2	--
100-D Aquifer Tubes	Phenacetin	62-44-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Phenanthrene	85-01-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Phenol	108-95-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	Phorate	298-02-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Potassium	7440-09-7	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	1,070	7,880	--	--	9,122	--
100-D Aquifer Tubes	Potassium	7440-09-7	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	1,060	7,610	--	--	9,122	--

Table L-7. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	p-Phenylenediamine	106-50-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pronamide	23950-58-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pyrene	129-00-0	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Pyridine	110-86-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	2.0	2.0	--	--	--	--	--	--
100-D Aquifer Tubes	Ruthenium-106	13967-48-1	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-3.60E+01	13	--	--	--	--	128	--
100-D Aquifer Tubes	Safrol	94-59-7	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Sodium	7440-23-5	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	3,090	23,800	--	--	26,998	--
100-D Aquifer Tubes	Sodium	7440-23-5	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	3,560	26,200	--	--	26,998	--
100-D Aquifer Tubes	Specific Conductance	CONDUCT	µS/cm	N	1/12/2006	3/18/2011	388	388	100	--	--	4.1	1,596	--	--	541,000	--
100-D Aquifer Tubes	Specific Conductance	CONDUCT	µS/cm	Y	12/6/2006	11/12/2009	29	29	100	--	--	116	656	--	--	541,000	--
100-D Aquifer Tubes	Strontium	7440-24-6	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	5.0	1,470	--	--	323	24
100-D Aquifer Tubes	Strontium	7440-24-6	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	100	1,500	--	--	323	25
100-D Aquifer Tubes	Styrene	100-42-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.074	0.074	--	--	--	--	--	--
100-D Aquifer Tubes	Sulfate	14808-79-8	µg/L	N	1/3/2006	3/18/2011	207	207	100	--	--	8,800	776,000	--	--	47,014	83
100-D Aquifer Tubes	Sulfate	14808-79-8	µg/L	Y	12/6/2006	1/9/2007	7	7	100	--	--	6,000	126,000	--	--	47,014	5
100-D Aquifer Tubes	sym-Trinitrobenzene	99-35-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Temperature	TEMPERATURE	Deg C	N	1/12/2006	3/18/2011	388	388	100	--	--	3.8	30	--	--	--	--
100-D Aquifer Tubes	Temperature	TEMPERATURE	Deg C	Y	12/6/2006	11/12/2009	29	29	100	--	--	3.7	12	--	--	--	--
100-D Aquifer Tubes	Tetrachloroethene	127-18-4	µg/L	N	7/23/2010	12/14/2010	12	6	50	0.18	0.18	0.25	0.34	--	--	--	--
100-D Aquifer Tubes	Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Tetrahydrofuran	109-99-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.1	1.1	--	--	--	--	--	--
100-D Aquifer Tubes	Thallium	7440-28-0	µg/L	N	7/23/2010	12/14/2010	12	1	8.3	0.10	0.10	0.33	0.33	--	--	1.7	--
100-D Aquifer Tubes	Toluene	108-88-3	µg/L	N	7/23/2010	12/14/2010	12	4	33	0.072	0.072	0.11	0.60	--	--	--	--
100-D Aquifer Tubes	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.083	0.083	--	--	--	--	--	--
100-D Aquifer Tubes	trans-1,3-Dichloropropene	10061-02-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.083	0.083	--	--	--	--	--	--
100-D Aquifer Tubes	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.29	0.29	--	--	--	--	--	--
100-D Aquifer Tubes	Tributyl phosphate	126-73-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.0	1.0	--	--	--	--	--	--
100-D Aquifer Tubes	Trichloromonofluoromethane	75-69-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.11	0.11	--	--	--	--	--	--
100-D Aquifer Tubes	Turbidity	TURBIDITY	NTU	N	11/14/2007	3/18/2011	310	310	100	--	--	0.18	1,000	--	--	--	--
100-D Aquifer Tubes	Turbidity	TURBIDITY	NTU	Y	11/12/2009	11/12/2009	1	1	100	--	--	1.9	1.9	--	--	--	--
100-D Aquifer Tubes	Vinyl acetate	108-05-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.18	0.18	--	--	--	--	--	--
100-D Aquifer Tubes	Vinyl chloride	75-01-4	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.084	0.084	--	--	--	--	--	--
100-D Aquifer Tubes	Xylenes (total)	1330-20-7	µg/L	N	7/23/2010	12/14/2010	12	2	17	0.20	0.20	0.26	0.73	--	--	--	--

Table L-8. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	1,2-Dichlorobenzene	95-50-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	1,3-Dichlorobenzene	541-73-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	1,4-Dichlorobenzene	106-46-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2,4,5-Trichlorophenol	95-95-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	2,4,6-Trichlorophenol	88-06-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2,4-Dichlorophenol	120-83-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2,4-Dimethylphenol	105-67-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2,4-Dinitrophenol	51-28-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	2,4-Dinitrotoluene	121-14-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2,6-Dinitrotoluene	606-20-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2-Chloronaphthalene	91-58-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2-Chlorophenol	95-57-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2-Methylnaphthalene	91-57-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	2-Nitroaniline	88-74-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	2-Nitrophenol	88-75-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	3-Nitroaniline	99-09-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	4-Bromophenylphenyl ether	101-55-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	4-Chloro-3-methylphenol	59-50-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	4-Chloroaniline	106-47-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	4-Nitroaniline	100-01-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	4-Nitrophenol	100-02-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	--	--	--	--
100-D-PORE-WATER	Acenaphthene	83-32-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Acenaphthylene	208-96-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Alkalinity	ALKALINITY	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	64,000	102,000	--	--	147,127	--
100-D-PORE-WATER	Alpha-BHC	319-84-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Americium-241	14596-10-2	pCi/L	N	1/29/2006	11/25/2006	7	0	0	24	100	--	--	--	--	7.70E-05	--
100-D-PORE-WATER	Anthracene	120-12-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Benzo(a)anthracene	56-55-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Benzo(a)pyrene	50-32-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Benzo(b)fluoranthene	205-99-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Benzo(ghi)perylene	191-24-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Benzo(k)fluoranthene	207-08-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Beryllium	7440-41-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.10	0.20	--	--	--	--	2.3	--
100-D-PORE-WATER	Beryllium-7	13966-02-4	pCi/L	N	1/29/2006	11/25/2006	7	0	0	0.97	160	--	--	--	--	8.6	--
100-D-PORE-WATER	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	0.50	2.0	--	--	--	--
100-D-PORE-WATER	Bismuth	7440-69-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	4.0	6.1	--	--	--	--	--	--
100-D-PORE-WATER	Boron	7440-42-8	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	3.9	31	--	--	36	--
100-D-PORE-WATER	Bromide	24959-67-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	250	250	--	--	--	--	124	--
100-D-PORE-WATER	Butylbenzylphthalate	85-68-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Calcium	7440-70-2	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	20,900	31,600	--	--	52,644	--
100-D-PORE-WATER	Carbazole	86-74-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Ceriodaphnia Number Young per Female	CERIO_YOUNG_FEM	Avg # youn	N	1/29/2006	11/25/2006	8	8	100	--	--	17	33	--	--	--	--
100-D-PORE-WATER	Ceriodaphnia Survival	CERIO_SURV	%	N	1/29/2006	11/25/2006	8	8	100	--	--	90	100	--	--	--	--
100-D-PORE-WATER	Chlorine	7782-50-5	µg/L	N	1/29/2006	11/25/2006	7	5	71	20	20	10	66,000	--	--	--	--
100-D-PORE-WATER	Chrysene	218-01-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Delta-BHC	319-86-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Dibenz[a,h]anthracene	53-70-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--

Table L-8. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	Dibenzofuran	132-64-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Diethylphthalate	84-66-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Dimethyl phthalate	131-11-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Di-n-butylphthalate	84-74-2	µg/L	N	1/29/2006	11/25/2006	7	2	29	10	10	0.50	2.0	--	--	--	--
100-D-PORE-WATER	Di-n-octylphthalate	117-84-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Dissolved oxygen	DO	µg/L	N	1/29/2006	12/16/2006	8	8	100	--	--	7,950	16,600	--	--	--	--
100-D-PORE-WATER	Endosulfan sulfate	1031-07-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Endrin aldehyde	7421-93-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Endrin ketone	53494-70-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	FETAX deformity	FETAX_DEFORM	%	N	1/29/2006	11/25/2006	8	8	100	--	--	--	6.2	--	--	--	--
100-D-PORE-WATER	FETAX growth [Percent of CTL]	FETAX_GROWTH	%	N	1/29/2006	11/25/2006	8	8	100	--	--	96	99	--	--	--	--
100-D-PORE-WATER	FETAX Survival	FETAX_SURV	%	N	1/29/2006	11/25/2006	8	8	100	--	--	92	100	--	--	--	--
100-D-PORE-WATER	Fluoranthene	206-44-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Fluorene	86-73-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	gamma-Chlordane	5566-34-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	--	--	--	--
100-D-PORE-WATER	Hardness	HARDNESS	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	190	76,000	--	--	--	--
100-D-PORE-WATER	Hexachlorobenzene	118-74-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Hexachlorobutadiene	87-68-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Hexachlorocyclopentadiene	77-47-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Hexachloroethane	67-72-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Isophorone	78-59-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Lithium	7439-93-2	µg/L	N	1/29/2006	11/25/2006	7	4	57	1.3	1.6	1.2	1.8	--	--	11,321	--
100-D-PORE-WATER	Magnesium	7439-95-4	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	4,690	6,240	--	--	24,816	--
100-D-PORE-WATER	Molybdenum	7439-98-7	µg/L	N	1/29/2006	11/25/2006	7	4	57	1.3	1.6	1.4	1.8	--	--	3.2	--
100-D-PORE-WATER	Naphthalene	91-20-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Nitrobenzene	98-95-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Nitrogen in ammonia	NH3-N	µg/L	N	1/29/2006	11/25/2006	7	6	86	100	100	20	140	--	--	--	--
100-D-PORE-WATER	Nitrogen in Nitrite	NO2-N	µg/L	N	1/29/2006	11/25/2006	4	0	0	76	76	--	--	--	--	--	--
100-D-PORE-WATER	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	140	1,000	--	--	--	--
100-D-PORE-WATER	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/L	N	1/29/2006	11/25/2006	7	3	43	100	100	100	170	--	--	--	--
100-D-PORE-WATER	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	n-Nitrosodiphenylamine	86-30-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	pH Measurement	PH	unitless	N	1/29/2006	12/16/2006	8	8	100	--	--	7.1	9.8	--	--	8.2	1
100-D-PORE-WATER	Phenanthrene	85-01-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Phenol	108-95-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Potassium	7440-09-7	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	830	1,330	--	--	9,122	--
100-D-PORE-WATER	Pyrene	129-00-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	10	10	--	--	--	--	--	--
100-D-PORE-WATER	Ruthenium-106	13967-48-1	pCi/L	N	1/29/2006	11/25/2006	7	0	0	54	200	--	--	--	--	128	--
100-D-PORE-WATER	Silicon	7440-21-3	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	2,260	4,620	--	--	33,949	--
100-D-PORE-WATER	Sodium	7440-23-5	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	2,120	3,750	--	--	26,998	--
100-D-PORE-WATER	Specific Conductance	CONDUCT	µS/cm	N	1/29/2006	12/16/2006	8	8	100	--	--	153	254	--	--	541,000	--
100-D-PORE-WATER	Strontium	7440-24-6	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	98	144	--	--	323	--
100-D-PORE-WATER	Sulfate	14808-79-8	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	9,800	33,000	--	--	47,014	--
100-D-PORE-WATER	Temperature	TEMPERATURE	Deg C	N	1/29/2006	12/16/2006	8	8	100	--	--	4.3	6.9	--	--	--	--
100-D-PORE-WATER	Thallium	7440-28-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	5.6	6.4	--	--	--	--	1.7	--
100-D-PORE-WATER	Thorium-228	14274-82-9	pCi/L	N	1/29/2006	11/25/2006	7	0	0	0	0.095	--	--	--	--	--	--
100-D-PORE-WATER	Tin	7440-31-5	µg/L	N	1/29/2006	11/25/2006	7	1	14	3.6	5.2	6.2	6.2	--	--	22	--
100-D-PORE-WATER	Total dissolved solids	TDS	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	85,000	134,000	--	--	258,189	--
100-D-PORE-WATER	Total organic carbon	TOC	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	840	2,000	--	--	2,706	--
100-D-PORE-WATER	Total petroleum hydrocarbons	TPH	µg/L	N	1/29/2006	11/25/2006	7	0	0	1,000	2,000	--	--	--	--	--	--
100-D-PORE-WATER	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/L	N	1/29/2006	11/25/2006	7	0	0	30	30	--	--	--	--	--	--
100-D-PORE-WATER	Total suspended solids	TSS	µg/L	N	1/29/2006	11/25/2006	7	0	0	5,000	5,000	--	--	--	--	--	--
100-D-PORE-WATER	Water depth 1996 to 2006	WATER_DEPTH	m	N	1/29/2006	12/16/2006	8	8	100	--	--	0.29	2.2	--	--	--	--
100-D-PORE-WATER	Water depth exceedance from 1996 to 2006	PCT_DEPTH_EXCEE	m	N	1/29/2006	12/16/2006	8	8	100	--	--	45	98	--	--	--	--

Table L-9. Summary of Seep/Spring Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SEEP	1,1,1-Trichloroethane	71-55-6	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.36	0.36	--	--	--	--	--	--
100-D-SEEP	1,1,2-Trichloroethane	79-00-5	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.53	0.53	--	--	--	--	--	--
100-D-SEEP	1,1-Dichloroethane	75-34-3	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.37	0.37	--	--	--	--	--	--
100-D-SEEP	1,2-Dichloroethane	107-06-2	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.43	0.43	--	--	--	--	--	--
100-D-SEEP	1,4-Dichlorobenzene	106-46-7	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.50	0.50	--	--	--	--	--	--
100-D-SEEP	1-Butanol	71-36-3	µg/L	N	11/4/1996	11/4/1996	1	0	0	25	25	--	--	--	--	--	--
100-D-SEEP	2-Butanone	78-93-3	µg/L	N	11/4/1996	11/4/1996	1	0	0	3.4	3.4	--	--	--	--	--	--
100-D-SEEP	4-Methyl-2-pentanone	108-10-1	µg/L	N	11/4/1996	11/4/1996	1	0	0	1.1	1.1	--	--	--	--	--	--
100-D-SEEP	Benzene	71-43-2	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.38	0.38	--	--	--	--	--	--
100-D-SEEP	Beryllium	7440-41-7	µg/L	N	11/4/1996	10/26/2004	15	3	20	0.0098	0.68	0.068	1.2	--	--	2.3	--
100-D-SEEP	Beryllium	7440-41-7	µg/L	Y	10/21/2002	10/26/2004	8	1	13	0.0098	0.68	0.012	0.012	--	--	2.3	--
100-D-SEEP	Beryllium-7	13966-02-4	pCi/L	N	8/23/1993	10/26/2004	22	4	18	-2.23E+01	12	3.8	41	--	--	8.6	2
100-D-SEEP	Bromide	24959-67-9	µg/L	N	9/11/1995	10/27/2003	4	2	50	250	250	39	100	--	--	124	--
100-D-SEEP	Calcium	7440-70-2	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	17,200	71,000	--	--	52,644	3
100-D-SEEP	Calcium	7440-70-2	µg/L	Y	10/21/2002	10/27/2003	4	4	100	--	--	25,700	49,500	--	--	52,644	--
100-D-SEEP	Carbon disulfide	75-15-0	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.33	0.33	--	--	--	--	--	--
100-D-SEEP	Carbon tetrachloride	56-23-5	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.35	0.35	--	--	--	--	--	--
100-D-SEEP	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.47	0.47	--	--	--	--	--	--
100-D-SEEP	Ethyl cyanide	107-12-0	µg/L	N	11/4/1996	11/4/1996	1	0	0	2.1	2.1	--	--	--	--	--	--
100-D-SEEP	Gross alpha	12587-46-1	pCi/L	N	8/23/1993	10/26/2004	25	12	48	-2.48E-01	1.6	0.86	32	--	--	--	--
100-D-SEEP	Gross beta	12587-47-2	pCi/L	N	8/23/1993	10/26/2004	22	16	73	0.63	2.0	2.1	41	--	--	3.1	12
100-D-SEEP	Magnesium	7439-95-4	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	3,990	18,300	--	--	24,816	--
100-D-SEEP	Magnesium	7439-95-4	µg/L	Y	10/21/2002	10/27/2003	4	4	100	--	--	5,870	11,400	--	--	24,816	--
100-D-SEEP	Methylene chloride	75-09-2	µg/L	N	8/22/1994	11/4/1996	3	2	67	0.35	0.35	0.49	1.2	--	--	--	--
100-D-SEEP	Nitrogen in Nitrite	NO2-N	µg/L	N	11/4/1996	10/26/2004	14	0	0	1.0	76	--	--	--	--	--	--
100-D-SEEP	Potassium	7440-09-7	µg/L	N	8/22/1994	10/27/2003	11	9	82	1,330	1,800	750	4,140	--	--	9,122	--
100-D-SEEP	Ruthenium-106	13967-48-1	pCi/L	N	8/23/1993	10/26/2004	17	0	0	-1.40E+01	25	--	--	--	--	128	--
100-D-SEEP	Silicon	7440-21-3	µg/L	N	10/27/2003	10/27/2003	2	2	100	--	--	95	208	--	--	33,949	--
100-D-SEEP	Sodium	7440-23-5	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	2,250	10,000	--	--	26,998	--
100-D-SEEP	Sodium	7440-23-5	µg/L	Y	10/21/2002	10/27/2003	4	4	100	--	--	2,830	9,710	--	--	26,998	--
100-D-SEEP	Strontium	7440-24-6	µg/L	N	8/29/1995	10/27/2003	8	8	100	--	--	96	338	--	--	323	1
100-D-SEEP	Strontium	7440-24-6	µg/L	Y	10/21/2002	10/27/2003	4	4	100	--	--	132	259	--	--	323	--
100-D-SEEP	Sulfate	14808-79-8	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	8,800	99,000	--	--	47,014	8
100-D-SEEP	Tetrachloroethene	127-18-4	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.35	0.35	--	--	--	--	--	--
100-D-SEEP	Tetrahydrofuran	109-99-9	µg/L	N	11/4/1996	11/4/1996	1	0	0	2.5	2.5	--	--	--	--	--	--
100-D-SEEP	Thallium	7440-28-0	µg/L	N	11/4/1996	10/26/2004	9	8	89	3.7	3.7	0.016	0.15	--	--	1.7	--
100-D-SEEP	Thallium	7440-28-0	µg/L	Y	10/27/2003	10/26/2004	4	3	75	0.0090	0.0090	0.014	0.024	--	--	1.7	--
100-D-SEEP	Tin	7440-31-5	µg/L	N	11/4/1996	11/4/1996	1	0	0	17	17	--	--	--	--	22	--
100-D-SEEP	Toluene	108-88-3	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.44	0.44	--	--	--	--	--	--
100-D-SEEP	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.48	0.48	--	--	--	--	--	--
100-D-SEEP	Vinyl chloride	75-01-4	µg/L	N	11/4/1996	11/4/1996	1	0	0	1.3	1.3	--	--	--	--	--	--
100-D-SEEP	Xylenes (total)	1330-20-7	µg/L	N	11/4/1996	11/4/1996	1	0	0	1.3	1.3	--	--	--	--	--	--

Table L-10. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	1,2-Dichlorobenzene	95-50-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	1,3-Dichlorobenzene	541-73-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	1,4-Dichlorobenzene	106-46-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2,4,5-Trichlorophenol	95-95-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	2,4,6-Trichlorophenol	88-06-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2,4-Dichlorophenol	120-83-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2,4-Dimethylphenol	105-67-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2,4-Dinitrophenol	51-28-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	2,4-Dinitrotoluene	121-14-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2,6-Dinitrotoluene	606-20-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2-Chloronaphthalene	91-58-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2-Chlorophenol	95-57-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2-Methylnaphthalene	91-57-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	2-Nitroaniline	88-74-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	2-Nitrophenol	88-75-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	3-Nitroaniline	99-09-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	4-Bromophenylphenyl ether	101-55-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	4-Chloro-3-methylphenol	59-50-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	4-Chloroaniline	106-47-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	4-Nitroaniline	100-01-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	4-Nitrophenol	100-02-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	--	--	--	--
100-D-SW	Acenaphthene	83-32-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Acenaphthylene	208-96-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Alpha-BHC	319-84-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Americium-241	14596-10-2	pCi/L	N	1/29/2006	2/6/2006	6	0	0	50	59	--	--	--	--	7.70E-05	--
100-D-SW	Anthracene	120-12-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Benzo(a)anthracene	56-55-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Benzo(a)pyrene	50-32-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Benzo(b)fluoranthene	205-99-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Benzo(ghi)perylene	191-24-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Benzo(k)fluoranthene	207-08-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Beryllium	7440-41-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.20	0.20	--	--	--	--	2.3	--
100-D-SW	Beryllium-7	13966-02-4	pCi/L	N	1/29/2006	2/6/2006	6	0	0	110	180	--	--	--	--	8.6	--
100-D-SW	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	0.60	1.0	--	--	--	--
100-D-SW	Bismuth	7440-69-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	6.1	6.1	--	--	--	--	--	--

Table L-10. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	Boron	7440-42-8	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	5.1	12	--	--	36	--
100-D-SW	Bromide	24959-67-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	250	250	--	--	--	--	124	--
100-D-SW	Butylbenzylphthalate	85-68-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Calcium	7440-70-2	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	20,000	21,600	--	--	52,644	--
100-D-SW	Carbazole	86-74-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Chrysene	218-01-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Delta-BHC	319-86-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Dibenz[a,h]anthracene	53-70-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Dibenzofuran	132-64-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Diethylphthalate	84-66-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Dimethyl phthalate	131-11-3	µg/L	N	1/29/2006	2/6/2006	6	1	17	10	10	3.0	3.0	--	--	--	--
100-D-SW	Di-n-butylphthalate	84-74-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Di-n-octylphthalate	117-84-0	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Dissolved oxygen	DO	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	11,690	13,710	--	--	--	--
100-D-SW	Endosulfan sulfate	1031-07-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Endrin aldehyde	7421-93-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Endrin ketone	53494-70-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Fluoranthene	206-44-0	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Fluorene	86-73-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	gamma-Chlordane	5566-34-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	--	--	--	--
100-D-SW	Hexachlorobenzene	118-74-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Hexachlorobutadiene	87-68-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Hexachlorocyclopentadiene	77-47-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Hexachloroethane	67-72-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Highest Specific Conductance [µS/cm]	AQ_BASKET_CONDU	µS/cm	N	7/31/2006	7/31/2006	1	1	100	--	--	390	390	--	--	--	--
100-D-SW	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Isophorone	78-59-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Lithium	7439-93-2	µg/L	N	1/29/2006	2/6/2006	6	3	50	1.3	1.6	1.3	1.8	--	--	11,321	--
100-D-SW	Magnesium	7439-95-4	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	4,760	5,130	--	--	24,816	--
100-D-SW	Molybdenum	7439-98-7	µg/L	N	1/29/2006	2/6/2006	6	4	67	1.3	1.3	1.3	2.2	--	--	3.2	--
100-D-SW	Naphthalene	91-20-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Nitrobenzene	98-95-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Nitrogen in Nitrite	NO2-N	µg/L	N	1/29/2006	2/6/2006	3	0	0	76	76	--	--	--	--	--	--
100-D-SW	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	130	2,500	--	--	--	--
100-D-SW	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	n-Nitrosodiphenylamine	86-30-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	pH Measurement	PH	unitless	N	1/29/2006	2/6/2006	6	6	100	--	--	7.8	8.2	--	--	8.2	--
100-D-SW	Phenanthrene	85-01-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Phenol	108-95-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Potassium	7440-09-7	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	650	1,040	--	--	9,122	--
100-D-SW	Pyrene	129-00-0	µg/L	N	1/29/2006	2/6/2006	6	0	0	10	10	--	--	--	--	--	--
100-D-SW	Ruthenium-106	13967-48-1	pCi/L	N	1/29/2006	2/6/2006	6	0	0	89	160	--	--	--	--	128	--
100-D-SW	Silicon	7440-21-3	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	2,180	2,390	--	--	33,949	--
100-D-SW	Sodium	7440-23-5	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	2,150	2,610	--	--	26,998	--
100-D-SW	Specific Conductance	CONDUCT	µS/cm	N	1/29/2006	2/6/2006	6	6	100	--	--	157	165	--	--	541,000	--
100-D-SW	Strontium	7440-24-6	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	97	104	--	--	323	--
100-D-SW	Sulfate	14808-79-8	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	9,800	14,700	--	--	47,014	--

Table L-10. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	Temperature	TEMPERATURE	Deg C	N	1/29/2006	2/6/2006	6	6	100	--	--	4.3	7.1	--	--	--	--
100-D-SW	Thallium	7440-28-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	6.4	6.4	6.5	6.5	--	--	1.7	1
100-D-SW	Thorium-228	14274-82-9	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-5.10E-02	0.26	--	--	--	--	--	--
100-D-SW	Tin	7440-31-5	µg/L	N	1/29/2006	2/6/2006	6	1	17	5.2	5.2	6.9	6.9	--	--	22	--
100-D-SW	Total organic carbon	TOC	µg/L	N	1/29/2006	2/1/2006	4	4	100	--	--	1,000	1,500	--	--	2,706	--
100-D-SW	Total petroleum hydrocarbons	TPH	µg/L	N	1/29/2006	2/6/2006	6	0	0	1,000	2,000	--	--	--	--	--	--
100-D-SW	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/L	N	1/29/2006	2/6/2006	6	0	0	30	30	--	--	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.090	0.090	--	--	--	--	--	--
100-H Near-Shore Wells	1,1,1-Trichloroethane	71-55-6	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.067	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.098	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,1,2-Trichloroethane	79-00-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.063	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,1-Dichloroethane	75-34-3	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.068	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,1-Dichloroethene	75-35-4	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.051	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2,3-Trichloropropane	96-18-4	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.15	0.15	--	--	--	--	--	--
100-H Near-Shore Wells	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.70	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2,4-Trimethylbenzene	95-63-6	µg/L	N	10/11/2009	10/11/2009	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.41	0.41	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dibromoethane	106-93-4	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.13	0.13	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dichlorobenzene	95-50-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.90	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dichloroethane	107-06-2	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.10	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dichloroethene (Total)	540-59-0	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.13	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,2-Dichloropropane	78-87-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.097	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,3-Dichlorobenzene	541-73-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,4-Dichlorobenzene	106-46-7	µg/L	N	10/11/2009	5/18/2010	9	0	0	0.12	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1,4-Dioxane	123-91-1	µg/L	N	3/21/2010	5/18/2010	6	0	0	7.6	7.6	--	--	--	--	--	--
100-H Near-Shore Wells	1,4-Naphthoquinone	130-15-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	1-Butanol	71-36-3	µg/L	N	10/11/2009	5/18/2010	9	0	0	12	100	--	--	--	--	--	--
100-H Near-Shore Wells	1-Naphthylamine	134-32-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.60E-07	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.40E-07	2.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	35694-08-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.70E-07	1.40E-06	7.90E-07	1.10E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	52663-79-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.20E-07	2.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	42740-50-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.20E-07	2.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5,6-Octachlorobiphenyl	52663-78-2	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.00E-07	1.50E-06	4.80E-07	4.80E-07	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.60E-07	2.00E-06	6.20E-06	6.40E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',6,6'-Octachlorobiphenyl	33091-17-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.10E-07	1.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4',6-Heptachlorobiphenyl	52663-71-5	µg/L	N	10/11/2009	5/16/2010	6	1	17	5.30E-07	2.40E-06	1.70E-06	1.70E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,4'-Hexachlorobiphenyl	38380-07-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.40E-07	3.80E-05	7.10E-06	8.30E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	52663-77-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.30E-07	2.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,5',6'-Octachlorobiphenyl	52663-75-9	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.70E-07	2.30E-06	1.40E-06	2.10E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,5',6-Octachlorobiphenyl	68194-17-2	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.70E-07	2.30E-06	1.40E-06	2.10E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,5'-Heptachlorobiphenyl	52663-74-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.20E-07	2.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	52663-73-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.10E-07	1.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	40186-71-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.00E-07	1.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,6'-Heptachlorobiphenyl	38411-25-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.90E-07	3.80E-05	1.00E-05	1.10E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5,6-Heptachlorobiphenyl	68194-16-1	µg/L	N	10/11/2009	5/16/2010	6	1	17	5.30E-07	2.40E-06	1.70E-06	1.70E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4',5,6-Heptachlorobiphenyl	52663-70-4	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.00E-07	3.80E-05	4.40E-06	5.00E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5',6-Heptachlorobiphenyl	40186-70-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.70E-07	2.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5'-Hexachlorobiphenyl	52663-66-8	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.90E-07	2.90E-06	2.10E-06	2.90E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,5-Hexachlorobiphenyl	55215-18-4	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	6.10E-05	6.50E-05	6.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,6,6'-Heptachlorobiphenyl	52663-65-7	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.60E-07	1.60E-06	8.80E-07	8.80E-07	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,6'-Hexachlorobiphenyl	38380-05-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.70E-07	3.80E-05	1.20E-05	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4,6-Hexachlorobiphenyl	61798-70-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.00E-07	3.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',4-Pentachlorobiphenyl	52663-62-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	8.00E-07	4.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	2136-99-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.40E-07	1.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,5',6-Heptachlorobiphenyl	52663-67-9	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.10E-07	2.30E-06	2.00E-06	2.20E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,5'-Hexachlorobiphenyl	35694-04-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.50E-07	2.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,6,6'-Heptachlorobiphenyl	52663-64-6	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-07	1.00E-06	5.70E-06	6.20E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,6'-Hexachlorobiphenyl	52744-13-5	µg/L	N	10/11/2009	5/16/2010	6	3	50	6.60E-07	2.40E-06	1.90E-05	3.70E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5,6-Hexachlorobiphenyl	52704-70-8	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.90E-07	2.90E-06	1.60E-06	2.60E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',5-Pentachlorobiphenyl	60145-20-2	µg/L	N	10/11/2009	5/16/2010	6	2	33	6.70E-07	3.80E-05	1.40E-05	1.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',6,6'-Hexachlorobiphenyl	38411-22-2	µg/L	N	10/11/2009	5/16/2010	6	3	50	4.80E-07	1.80E-06	4.10E-06	9.00E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,3',6-Pentachlorobiphenyl	52663-60-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	7.60E-07	4.50E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,3'-Tetrachlorobiphenyl	38444-93-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.90E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5,5',6-Octachlorobiphenyl	52663-76-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.90E-07	2.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	µg/L	N	10/11/2009	5/16/2010	6	4	67	3.80E-05	3.80E-05	7.60E-07	2.00E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	74472-52-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.30E-07	1.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5',6-Heptachlorobiphenyl	52663-69-1	µg/L	N	10/11/2009	5/16/2010	6	3	50	4.70E-07	1.20E-06	5.70E-06	7.70E-06	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	2,2',3,4,4',5,6'-Heptachlorobiphenyl	60145-23-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	2.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5,6-Heptachlorobiphenyl	74472-47-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.70E-07	2.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	6.10E-05	6.50E-05	6.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',5-Hexachlorobiphenyl	35694-06-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.10E-07	3.80E-05	1.80E-06	2.40E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',6,6'-Heptachlorobiphenyl	74472-48-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.90E-07	1.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',6'-Hexachlorobiphenyl	59291-64-4	µg/L	N	10/11/2009	5/16/2010	6	1	17	5.00E-07	2.50E-06	8.30E-07	8.30E-07	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4',6-Hexachlorobiphenyl	56030-56-9	µg/L	N	10/11/2009	5/16/2010	6	1	17	5.00E-07	2.50E-06	8.30E-07	8.30E-07	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,4'-Pentachlorobiphenyl	65510-45-4	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.50E-07	1.60E-06	6.50E-06	9.20E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5,5',6-Heptachlorobiphenyl	52712-05-7	µg/L	N	10/11/2009	5/16/2010	6	3	50	4.70E-07	1.20E-06	5.70E-06	7.70E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0	µg/L	N	10/11/2009	5/16/2010	6	4	67	4.40E-07	3.80E-05	1.50E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5,5'-Hexachlorobiphenyl	52712-04-6	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.30E-07	3.80E-05	7.30E-06	1.20E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,5'-Hexachlorobiphenyl	51908-16-8	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.80E-07	3.80E-05	6.10E-06	8.20E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5,6,6'-Heptachlorobiphenyl	74472-49-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-07	1.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,6,6'-Heptachlorobiphenyl	74487-85-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.30E-07	1.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,6-Hexachlorobiphenyl	68194-13-8	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-05	3.80E-05	1.70E-06	4.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5',6-Hexachlorobiphenyl	38380-04-0	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-05	3.80E-05	1.70E-06	4.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5,6'-Hexachlorobiphenyl	68194-15-0	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.90E-07	2.90E-06	1.60E-06	2.60E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,6'-Hexachlorobiphenyl	74472-41-6	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.40E-07	5.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5,6-Hexachlorobiphenyl	41411-61-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.80E-07	2.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5',6-Hexachlorobiphenyl	68194-14-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.10E-07	5.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',5-Pentachlorobiphenyl	68194-07-0	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	3.80E-05	4.60E-05	6.10E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.70E-07	3.80E-05	2.30E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,5-Pentachlorobiphenyl	55312-69-1	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.70E-07	3.80E-05	2.30E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3',4,5-Pentachlorobiphenyl	41464-51-1	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.70E-07	3.80E-05	2.30E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,6,6'-Hexachlorobiphenyl	74472-40-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	4.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',6,6'-Hexachlorobiphenyl	68194-08-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.50E-07	4.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,6-Pentachlorobiphenyl	55215-17-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	6.80E-07	4.00E-06	2.70E-06	4.30E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3',4,6-Pentachlorobiphenyl	60233-25-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.40E-07	3.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4',6-Pentachlorobiphenyl	68194-05-8	µg/L	N	10/11/2009	5/16/2010	6	2	33	6.80E-07	4.00E-06	2.70E-06	4.30E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3,4,6'-Pentachlorobiphenyl	73575-57-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	7.40E-07	4.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4'-Tetrachlorobiphenyl	36559-22-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.00E-07	2.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,4-Tetrachlorobiphenyl	52663-59-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.90E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,5,5',6-Hexachlorobiphenyl	52663-63-5	µg/L	N	10/11/2009	5/16/2010	6	3	50	6.60E-07	2.40E-06	1.90E-05	3.70E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,5,5'-Pentachlorobiphenyl	52663-61-3	µg/L	N	10/11/2009	5/16/2010	6	3	50	6.50E-07	1.90E-06	5.80E-06	1.10E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,5,6,6'-Hexachlorobiphenyl	68194-09-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	4.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,5',6-Pentachlorobiphenyl	38379-99-6	µg/L	N	10/11/2009	5/16/2010	6	5	83	3.80E-05	3.80E-05	1.70E-06	3.00E-05	--	--	--	--
100-H Near-Shore Wells	2,2',3,5,6'-Pentachlorobiphenyl	73575-55-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	7.40E-07	4.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,5,6-Pentachlorobiphenyl	73575-56-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.60E-07	3.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,5'-Tetrachlorobiphenyl	41464-39-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,5-Tetrachlorobiphenyl	70362-46-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	1.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,6,6'-Pentachlorobiphenyl	73575-54-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.50E-07	3.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,6'-Tetrachlorobiphenyl	41464-47-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.00E-07	2.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',3,6-Tetrachlorobiphenyl	70362-45-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.10E-07	2.00E-06	2.40E-06	3.00E-06	--	--	--	--
100-H Near-Shore Wells	2,2',3-Trichlorobiphenyl	38444-78-9	µg/L	N	10/11/2009	5/16/2010	6	2	33	6.90E-07	3.10E-06	2.80E-06	5.20E-06	--	--	--	--
100-H Near-Shore Wells	2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	5.40E-05	5.60E-05	5.90E-05	--	--	--	--
100-H Near-Shore Wells	2,2',4,4',5,6'-Hexachlorobiphenyl	60145-22-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.30E-07	4.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,4',5-Pentachlorobiphenyl	38380-01-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	6.70E-07	3.80E-05	1.40E-05	1.60E-05	--	--	--	--
100-H Near-Shore Wells	2,2',4,4',6,6'-Hexachlorobiphenyl	33979-03-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.40E-07	3.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,4',6-Pentachlorobiphenyl	39485-83-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.60E-07	3.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,4'-Tetrachlorobiphenyl	2437-79-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	3.80E-05	4.60E-05	6.10E-05	--	--	--	--
100-H Near-Shore Wells	2,2',4,5,6-Pentachlorobiphenyl	68194-06-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.40E-07	3.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,5',6-Pentachlorobiphenyl	60145-21-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	6.50E-07	3.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,5'-Tetrachlorobiphenyl	41464-40-8	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.90E-07	3.80E-05	2.00E-06	2.80E-06	--	--	--	--
100-H Near-Shore Wells	2,2',4,5-Tetrachlorobiphenyl	70362-47-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.80E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,6,6'-Pentachlorobiphenyl	56558-16-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.90E-07	2.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4,6'-Tetrachlorobiphenyl	68194-04-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.10E-07	2.00E-06	2.40E-06	3.00E-06	--	--	--	--
100-H Near-Shore Wells	2,2',4,6-Tetrachlorobiphenyl	62796-65-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.70E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',4-Trichlorobiphenyl	37680-66-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.70E-07	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.70E-07	3.80E-05	2.40E-05	3.20E-05	--	--	--	--
100-H Near-Shore Wells	2,2',5,6'-Tetrachlorobiphenyl	41464-41-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.70E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',5-Trichlorobiphenyl	37680-65-2	µg/L	N	10/11/2009	5/16/2010	6	1	17	6.00E-07	5.70E-05	6.70E-06	6.70E-06	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	2,2',6,6'-Tetrachlorobiphenyl	15968-05-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.00E-07	3.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2',6-Trichlorobiphenyl	38444-73-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	7.00E-07	3.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,2'-Dichlorobiphenyl	13029-08-8	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.00E-06	5.70E-05	7.80E-06	7.80E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5,5',6-Octachlorobiphenyl	74472-53-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.10E-07	1.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.00E-07	1.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5,6-Heptachlorobiphenyl	41411-64-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.60E-07	1.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5',6-Heptachlorobiphenyl	74472-50-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.60E-07	1.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.30E-07	3.80E-05	3.10E-06	3.40E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.30E-07	3.80E-05	3.10E-06	3.40E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4',6-Hexachlorobiphenyl	74472-42-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.60E-07	3.80E-05	5.70E-06	6.00E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.20E-07	3.80E-05	8.70E-06	1.30E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5,5',6-Heptachlorobiphenyl	74472-51-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.00E-07	1.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',5,5',6-Heptachlorobiphenyl	69782-91-8	µg/L	N	10/11/2009	5/16/2010	6	4	67	3.80E-05	3.80E-05	7.60E-07	2.00E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5,5'-Hexachlorobiphenyl	39635-35-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.90E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',5,5'-Hexachlorobiphenyl	39635-34-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5,6-Hexachlorobiphenyl	41411-62-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	6.10E-05	6.50E-05	6.60E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',5,6-Hexachlorobiphenyl	74472-44-9	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	6.10E-05	6.50E-05	6.60E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5',6-Hexachlorobiphenyl	74472-43-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',5',6-Hexachlorobiphenyl	74472-45-0	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.00E-07	3.80E-05	2.10E-06	3.20E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5-Pentachlorobiphenyl	70424-69-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2',3,3',4,5-Pentachlorobiphenyl	76842-07-4	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.60E-07	1.50E-06	5.20E-07	5.20E-07	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',5-Pentachlorobiphenyl	70424-68-9	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.30E-07	1.30E-06	1.70E-06	2.60E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,5'-Pentachlorobiphenyl	70362-41-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.40E-07	3.80E-05	1.00E-06	1.60E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4,6-Pentachlorobiphenyl	74472-35-8	µg/L	N	10/11/2009	5/16/2010	6	4	67	5.70E-07	1.60E-06	2.30E-06	2.30E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4',6-Pentachlorobiphenyl	38380-03-9	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-05	3.80E-05	5.00E-05	7.70E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',4'-Tetrachlorobiphenyl	41464-43-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.30E-07	1.40E-06	1.90E-06	3.00E-06	--	--	--	--
100-H Near-Shore Wells	2,3,3',4-Tetrachlorobiphenyl	74338-24-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-07	1.50E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',5,5',6-Hexachlorobiphenyl	74472-46-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.20E-07	2.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',5,5'-Pentachlorobiphenyl	39635-32-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	2.70E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',5,6-Pentachlorobiphenyl	74472-36-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.00E-07	2.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',5',6-Pentachlorobiphenyl	68194-10-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	3.80E-05	4.60E-05	6.10E-05	--	--	--	--
100-H Near-Shore Wells	2,3,3',5'-Tetrachlorobiphenyl	41464-49-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.60E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',5-Tetrachlorobiphenyl	70424-67-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.60E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3',6-Tetrachlorobiphenyl	74472-33-6	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.50E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,3'-Trichlorobiphenyl	38444-84-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.80E-07	1.60E-06	8.00E-07	1.20E-06	--	--	--	--
100-H Near-Shore Wells	2,3,4,4',5,6-Hexachlorobiphenyl	41411-63-6	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.40E-07	3.80E-05	7.10E-06	8.30E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4,4',5',6-Hexachlorobiphenyl	59291-65-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.80E-05	5.40E-05	5.60E-05	5.90E-05	--	--	--	--
100-H Near-Shore Wells	2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.20E-07	1.30E-06	6.90E-07	6.90E-07	--	--	--	--
100-H Near-Shore Wells	2',3,4,4',5-Pentachlorobiphenyl	65510-44-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.40E-07	1.40E-06	3.60E-07	9.40E-07	--	--	--	--
100-H Near-Shore Wells	2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-05	3.80E-05	1.10E-06	4.40E-05	--	--	--	--
100-H Near-Shore Wells	2,3,4,4',6-Pentachlorobiphenyl	74472-38-1	µg/L	N	10/11/2009	5/16/2010	6	3	50	3.80E-05	3.80E-05	5.00E-05	7.70E-05	--	--	--	--
100-H Near-Shore Wells	2,3',4,4',6-Pentachlorobiphenyl	56558-17-9	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.70E-07	3.80E-05	2.30E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,3,4,4'-Tetrachlorobiphenyl	33025-41-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.50E-07	1.50E-06	9.30E-07	2.30E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4,4'-Tetrachlorobiphenyl	32598-10-0	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.20E-07	3.80E-05	2.40E-06	4.80E-06	--	--	--	--
100-H Near-Shore Wells	2',3,4,5,5'-Pentachlorobiphenyl	70424-70-3	µg/L	N	10/11/2009	5/16/2010	6	2	33	2.40E-07	1.40E-06	1.00E-06	1.60E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4,5,5'-Pentachlorobiphenyl	68194-12-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.80E-07	2.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2',3,4,5,6'-Pentachlorobiphenyl	74472-39-2	µg/L	N	10/11/2009	5/16/2010	6	3	50	5.70E-07	3.80E-05	2.30E-06	1.50E-05	--	--	--	--
100-H Near-Shore Wells	2,3,4,5,6-Pentachlorobiphenyl	18259-05-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.50E-07	3.80E-05	6.50E-06	9.20E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4,5',6-Pentachlorobiphenyl	56558-18-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.80E-07	2.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,4',5,6-Pentachlorobiphenyl	68194-11-6	µg/L	N	10/11/2009	5/16/2010	6	2	33	5.50E-07	3.80E-05	6.50E-06	9.20E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4,5'-Tetrachlorobiphenyl	73575-52-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	3.30E-07	3.80E-05	8.50E-07	4.10E-06	--	--	--	--
100-H Near-Shore Wells	2,3,4,5-Tetrachlorobiphenyl	33284-53-6	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.80E-05	3.80E-05	2.50E-05	2.50E-05	--	--	--	--
100-H Near-Shore Wells	2',3,4,5-Tetrachlorobiphenyl	70362-48-0	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.80E-05	3.80E-05	2.50E-05	2.50E-05	--	--	--	--
100-H Near-Shore Wells	2,3',4,5-Tetrachlorobiphenyl	73575-53-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.20E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,4',5-Tetrachlorobiphenyl	74472-34-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.30E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',4',5-Tetrachlorobiphenyl	32598-11-1	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.80E-05	3.80E-05	2.50E-05	2.50E-05	--	--	--	--
100-H Near-Shore Wells	2,3,4,6-Tetrachlorobiphenyl	54230-22-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.50E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',4,6-Tetrachlorobiphenyl	60233-24-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	4.90E-07	3.80E-05	2.00E-06	2.80E-06	--	--	--	--
100-H Near-Shore Wells	2,3,4',6-Tetrachlorobiphenyl	52663-58-8	µg/L	N	10/11/2009	5/16/2010	6	5	83	4.00E-07	4.00E-07	1.30E-06	7.80E-06	--	--	--	--
100-H Near-Shore Wells	2,3',4',6-Tetrachlorobiphenyl	41464-46-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.90E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	2,3,4-Trichlorobiphenyl	55702-46-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2',3,4-Trichlorobiphenyl	38444-86-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',4-Trichlorobiphenyl	55712-37-3	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.10E-07	9.60E-07	9.40E-07	9.40E-07	--	--	--	--
100-H Near-Shore Wells	2,3,4'-Trichlorobiphenyl	38444-85-8	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.80E-07	3.80E-05	2.50E-06	2.50E-06	--	--	--	--
100-H Near-Shore Wells	2,3',5,5'-Tetrachlorobiphenyl	41464-42-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.50E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,5,6-Tetrachlorobiphenyl	33284-54-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',5',6-Tetrachlorobiphenyl	74338-23-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.60E-07	1.80E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3,5-Trichlorobiphenyl	55720-44-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2',3,5-Trichlorobiphenyl	37680-68-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',5-Trichlorobiphenyl	38444-81-4	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.70E-07	3.80E-05	1.40E-06	1.40E-06	--	--	--	--
100-H Near-Shore Wells	2,3,6-Trichlorobiphenyl	55702-45-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.80E-07	2.20E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3',6-Trichlorobiphenyl	38444-76-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	4.10E-07	1.90E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,3'-Dichlorobiphenyl	25569-80-6	µg/L	N	10/11/2009	5/16/2010	6	1	17	1.60E-06	3.80E-05	3.60E-06	3.60E-06	--	--	--	--
100-H Near-Shore Wells	2,3-Dichlorobiphenyl	16605-91-7	µg/L	N	10/11/2009	5/16/2010	6	1	17	1.70E-06	6.80E-06	2.20E-06	2.20E-06	--	--	--	--
100-H Near-Shore Wells	2,4,4',5-Tetrachlorobiphenyl	32690-93-0	µg/L	N	10/11/2009	5/16/2010	6	1	17	3.80E-05	3.80E-05	2.50E-05	2.50E-05	--	--	--	--
100-H Near-Shore Wells	2,4,4',6-Tetrachlorobiphenyl	32598-12-2	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.50E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	2,4,4'-Trichlorobiphenyl	7012-37-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,4,5-Trichlorobiphenyl	15862-07-4	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.70E-07	3.80E-05	1.40E-06	1.40E-06	--	--	--	--
100-H Near-Shore Wells	2,4',5-Trichlorobiphenyl	16606-02-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,4,5-Trichlorophenol	95-95-4	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,4,6-Trichlorobiphenyl	35693-92-6	µg/L	N	10/11/2009	5/16/2010	6	1	17	6.00E-07	5.70E-05	6.70E-06	6.70E-06	--	--	--	--
100-H Near-Shore Wells	2,4',6-Trichlorobiphenyl	38444-77-8	µg/L	N	10/11/2009	5/16/2010	6	3	50	4.80E-07	3.80E-05	1.50E-06	3.30E-06	--	--	--	--
100-H Near-Shore Wells	2,4,6-Trichlorophenol	88-06-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,4'-Dichlorobiphenyl	34883-43-7	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.70E-05	5.70E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,4-Dichlorobiphenyl	33284-50-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.80E-05	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	2,4-Dichlorophenol	120-83-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,4-Dimethylphenol	105-67-9	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,4-Dinitrophenol	51-28-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,4-Dinitrotoluene	121-14-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,5-Dichlorobiphenyl	34883-39-1	µg/L	N	10/11/2009	5/16/2010	6	2	33	1.60E-06	6.60E-06	1.20E-06	2.00E-06	--	--	--	--
100-H Near-Shore Wells	2,6-Dichlorobiphenyl	33146-45-1	µg/L	N	10/11/2009	5/16/2010	6	1	17	1.70E-06	7.10E-06	2.60E-06	2.60E-06	--	--	--	--
100-H Near-Shore Wells	2,6-Dichlorophenol	87-65-0	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2,6-Dinitrotoluene	606-20-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	2.2	--	--	--	--	--	--
100-H Near-Shore Wells	2-Acetylaminofluorene	53-96-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Butanone	78-93-3	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.52	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Butoxyethanol	111-76-2	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.80	0.80	--	--	--	--	--	--
100-H Near-Shore Wells	2-Chloronaphthalene	91-58-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.80	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Chlorophenol	95-57-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Hexanone	591-78-6	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.22	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Methylnaphthalene	91-57-6	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.80	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Monochlorobiphenyl	2051-60-7	µg/L	N	10/11/2009	5/16/2010	6	1	17	1.10E-07	3.80E-05	3.60E-06	3.60E-06	--	--	--	--
100-H Near-Shore Wells	2-Naphthylamine	91-59-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Nitroaniline	88-74-4	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Nitrophenol	88-75-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	2-Picoline	109-06-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.70E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,4',5-Pentachlorobiphenyl	57465-28-8	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.40E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,5,5'-Pentachlorobiphenyl	39635-33-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,5'-Tetrachlorobiphenyl	41464-48-6	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.30E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4,5-Tetrachlorobiphenyl	70362-49-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.70E-07	1.50E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',4-Trichlorobiphenyl	37680-69-6	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.40E-07	1.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',5,5'-Tetrachlorobiphenyl	33284-52-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.20E-07	1.30E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3',5-Trichlorobiphenyl	38444-87-0	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.30E-07	1.00E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	3,3'-Dichlorobiphenyl	2050-67-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	5.70E-05	5.70E-05	--	--	--	--	--	--
100-H Near-Shore Wells	3,3'-Dimethylbenzidine	119-93-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	2.6	2.6	--	--	--	--	--	--
100-H Near-Shore Wells	3,4,4',5-Tetrachlorobiphenyl	70362-50-4	µg/L	N	10/11/2009	5/16/2010	6	0	0	3.40E-07	1.40E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,4,4'-Trichlorobiphenyl	38444-90-5	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.90E-07	3.80E-05	1.40E-06	1.40E-06	--	--	--	--
100-H Near-Shore Wells	3,4,5-Trichlorobiphenyl	53555-66-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.40E-07	1.10E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3,4',5-Trichlorobiphenyl	38444-88-1	µg/L	N	10/11/2009	5/16/2010	6	0	0	2.20E-07	9.80E-07	--	--	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	3,4'-Dichlorobiphenyl	2974-90-5	µg/L	N	10/11/2009	5/16/2010	6	2	33	1.60E-06	5.70E-05	1.40E-06	2.00E-06	--	--	--	--
100-H Near-Shore Wells	3,4-Dichlorobiphenyl	2974-92-7	µg/L	N	10/11/2009	5/16/2010	6	2	33	1.60E-06	5.70E-05	1.40E-06	2.00E-06	--	--	--	--
100-H Near-Shore Wells	3,5-Dichlorobiphenyl	34883-41-5	µg/L	N	10/11/2009	5/16/2010	6	0	0	1.40E-06	5.60E-06	--	--	--	--	--	--
100-H Near-Shore Wells	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.60	0.60	--	--	--	--	--	--
100-H Near-Shore Wells	3-Methylcholanthrene	56-49-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	3-Monochlorobiphenyl	2051-61-8	µg/L	N	10/11/2009	5/16/2010	6	1	17	1.30E-07	3.80E-05	1.30E-06	1.30E-06	--	--	--	--
100-H Near-Shore Wells	3-Nitroaniline	99-09-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4,4'-Dichlorobiphenyl	2050-68-2	µg/L	N	10/11/2009	5/16/2010	6	1	17	2.40E-06	3.80E-05	2.80E-06	2.80E-06	--	--	--	--
100-H Near-Shore Wells	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.70	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Aminobiphenyl	92-67-1	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Bromophenylphenyl ether	101-55-3	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Chloro-3-methylphenol	59-50-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Chloroaniline	106-47-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Methyl-2-pentanone	108-10-1	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.12	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Methylphenol (cresol, p-)	106-44-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	10	10	--	--	--	--	--	--
100-H Near-Shore Wells	4-Monochlorobiphenyl	2051-62-9	µg/L	N	10/11/2009	5/16/2010	6	0	0	1.50E-07	3.80E-05	--	--	--	--	--	--
100-H Near-Shore Wells	4-Nitroaniline	100-01-6	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Nitrophenol	100-02-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	4-Nitroquinoline-1-oxide	56-57-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	5.0	5.0	--	--	--	--	--	--
100-H Near-Shore Wells	5-Nitro-o-toluidine	99-55-8	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	7,12-Dimethylbenz[a]anthracene	57-97-6	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Acenaphthene	83-32-9	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.30	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Acenaphthylene	208-96-8	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.28	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Acetonitrile	75-05-8	µg/L	N	3/21/2010	5/18/2010	6	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Acetophenone	98-86-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Acrolein	107-02-8	µg/L	N	3/21/2010	5/18/2010	6	0	0	2.8	2.8	--	--	--	--	--	--
100-H Near-Shore Wells	Alkalinity	ALKALINITY	µg/L	N	11/8/2006	1/24/2011	54	54	100	--	--	59,000	140,000	--	--	147,127	--
100-H Near-Shore Wells	Allyl chloride	107-05-1	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.091	0.11	--	--	--	--	--	--
100-H Near-Shore Wells	alpha,alpha-Dimethylphenethylamine	122-09-8	µg/L	N	3/21/2010	5/18/2010	2	0	0	22	22	--	--	--	--	--	--
100-H Near-Shore Wells	Ammonium ion	14798-03-9	µg/L	N	11/10/2009	1/24/2011	8	3	38	3.1	4.4	4.5	14	--	--	--	--
100-H Near-Shore Wells	Aniline	62-53-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Anthracene	120-12-7	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.014	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Aramite	140-57-8	µg/L	N	3/21/2010	5/18/2010	2	0	0	20	20	--	--	--	--	--	--
100-H Near-Shore Wells	Aroclor-1262	37324-23-5	µg/L	N	10/11/2009	10/21/2009	3	0	0	0.093	0.093	--	--	--	--	--	--
100-H Near-Shore Wells	Aroclor-1268	11100-14-4	µg/L	N	10/11/2009	10/21/2009	3	0	0	0.093	0.093	--	--	--	--	--	--
100-H Near-Shore Wells	Azobenzene	103-33-3	µg/L	N	5/18/2010	5/18/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzene	71-43-2	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.045	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzo(a)anthracene	56-55-3	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.021	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzo(a)pyrene	50-32-8	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.044	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzo(b)fluoranthene	205-99-2	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.022	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzo(ghi)perylene	191-24-2	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.063	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzo(k)fluoranthene	207-08-9	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.026	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzoic acid	65-85-0	µg/L	N	10/11/2009	10/11/2009	2	0	0	5.0	5.0	--	--	--	--	--	--
100-H Near-Shore Wells	Benzothiazole	95-16-9	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Benzyl alcohol	100-51-6	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Beryllium	7440-41-7	µg/L	N	11/8/2006	2/25/2011	70	2	2.9	0.050	4.0	0.16	0.49	--	--	2.3	--
100-H Near-Shore Wells	Beryllium	7440-41-7	µg/L	Y	11/8/2006	2/16/2011	65	1	1.5	0.10	4.0	0.38	0.38	--	--	2.3	--
100-H Near-Shore Wells	Beryllium-7	13966-02-4	pCi/L	N	10/11/2009	2/25/2011	25	0	0	-5.70E+01	41	--	--	--	--	8.6	--
100-H Near-Shore Wells	Bicarbonate	71-52-3	µg/L	N	1/24/2011	1/24/2011	1	1	100	--	--	140,000	140,000	--	--	--	--
100-H Near-Shore Wells	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.80	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bismuth	7440-69-9	µg/L	N	10/21/2009	5/18/2010	8	1	13	23	23	23	23	--	--	--	--
100-H Near-Shore Wells	Bismuth	7440-69-9	µg/L	Y	10/21/2009	2/16/2011	10	0	0	20	23	--	--	--	--	--	--
100-H Near-Shore Wells	Boron	7440-42-8	µg/L	N	10/21/2009	5/18/2010	8	4	50	19	19	22	33	--	--	36	--
100-H Near-Shore Wells	Boron	7440-42-8	µg/L	Y	10/21/2009	2/16/2011	10	6	60	19	19	11	44	--	--	36	1
100-H Near-Shore Wells	Bromide	24959-67-9	µg/L	N	10/21/2009	2/25/2011	19	6	32	90	170	98	198	--	--	124	3
100-H Near-Shore Wells	Bromodichloromethane	75-27-4	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.082	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bromoform	75-25-2	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.094	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Bromomethane	74-83-9	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.084	1.0	--	--	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Butylbenzylphthalate	85-68-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Calcium	7440-70-2	µg/L	N	11/8/2006	1/24/2011	59	59	100	--	--	9,310	73,000	--	--	52,644	27
100-H Near-Shore Wells	Calcium	7440-70-2	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	9,240	69,700	--	--	52,644	29
100-H Near-Shore Wells	Carbazole	86-74-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Carbon disulfide	75-15-0	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.050	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Carbon tetrachloride	56-23-5	µg/L	N	10/11/2009	2/25/2011	20	3	15	0.063	1.0	0.088	2.7	--	--	--	--
100-H Near-Shore Wells	Carbonate alkalinity	CO3ALKALINITY	µg/L	N	1/24/2011	1/24/2011	1	0	0	1,000	1,000	--	--	--	--	--	--
100-H Near-Shore Wells	Chlorobenzene	108-90-7	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.15	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Chlorobenzilate	510-15-6	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Chloroethane	75-00-3	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.085	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Chloromethane	74-87-3	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.077	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Chloroprene	126-99-8	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.086	0.097	--	--	--	--	--	--
100-H Near-Shore Wells	Chrysene	218-01-9	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.015	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.083	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	cis-1,3-Dichloropropene	10061-01-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.073	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Cyclohexanone	108-94-1	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Decane	124-18-5	µg/L	N	10/11/2009	10/11/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Diallate	2303-16-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dibenz[a,h]anthracene	53-70-3	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.053	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dibenzofuran	132-64-9	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dibromochloromethane	124-48-1	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.057	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dibromomethane	74-95-3	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.21	0.21	--	--	--	--	--	--
100-H Near-Shore Wells	Dibutyl Butylphosphonate	78-46-6	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Dichlorodifluoromethane	75-71-8	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.070	0.084	--	--	--	--	--	--
100-H Near-Shore Wells	Diethylphthalate	84-66-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dimethoate	60-51-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dimethyl phthalate	131-11-3	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Di-n-butylphthalate	84-74-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Di-n-octylphthalate	117-84-0	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.90	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Diphenylamine	122-39-4	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Dissolved oxygen	DO	µg/L	N	9/2/2009	2/25/2011	36	36	100	--	--	3,130	270,000	--	--	--	--
100-H Near-Shore Wells	Disulfoton	298-04-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Dodecane	112-40-3	µg/L	N	10/11/2009	10/11/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Ethyl cyanide	107-12-0	µg/L	N	10/11/2009	5/18/2010	9	0	0	1.2	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Ethyl methacrylate	97-63-2	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.11	0.11	--	--	--	--	--	--
100-H Near-Shore Wells	Ethyl methanesulfonate	62-50-0	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Ethylbenzene	100-41-4	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.086	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Famphur	52-85-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.7	1.7	--	--	--	--	--	--
100-H Near-Shore Wells	Fluoranthene	206-44-0	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.045	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Fluorene	86-73-7	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.020	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Gross alpha	12587-46-1	pCi/L	N	11/8/2006	2/25/2011	38	6	16	-1.80E+00	2.3	1.7	7.8	--	--	--	--
100-H Near-Shore Wells	Gross beta	12587-47-2	pCi/L	N	11/8/2006	2/25/2011	38	33	87	0.43	3.4	2.2	74	--	--	3.1	31
100-H Near-Shore Wells	Hexachlorobenzene	118-74-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.60	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Hexachlorobutadiene	87-68-3	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.90	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Hexachlorocyclopentadiene	77-47-4	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.80	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Hexachloroethane	67-72-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.80	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Hexachlorophene	70-30-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	10	10	--	--	--	--	--	--
100-H Near-Shore Wells	Hexachloropropene	1888-71-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Hydroxylion	84625-61-6	µg/L	N	1/24/2011	1/24/2011	1	0	0	1,000	1,000	--	--	--	--	--	--
100-H Near-Shore Wells	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.040	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Iodomethane	74-88-4	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.092	0.092	--	--	--	--	--	--
100-H Near-Shore Wells	Isobutyl alcohol	78-83-1	µg/L	N	3/21/2010	5/18/2010	6	0	0	8.7	8.7	--	--	--	--	--	--
100-H Near-Shore Wells	Isodrin	465-73-6	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Isophorone	78-59-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Isosafrole	120-58-1	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.3	1.3	--	--	--	--	--	--
100-H Near-Shore Wells	Kepone	143-50-0	µg/L	N	3/21/2010	5/18/2010	2	0	0	20	20	--	--	--	--	--	--
100-H Near-Shore Wells	Lithium	7439-93-2	µg/L	N	10/21/2009	5/18/2010	8	4	50	4.0	4.0	4.4	13	--	--	11,321	--
100-H Near-Shore Wells	Lithium	7439-93-2	µg/L	Y	10/21/2009	2/16/2011	10	5	50	4.0	20	4.9	14	--	--	11,321	--
100-H Near-Shore Wells	Magnesium	7439-95-4	µg/L	N	11/8/2006	1/24/2011	59	59	100	--	--	1,100	12,600	--	--	24,816	--
100-H Near-Shore Wells	Magnesium	7439-95-4	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	1,050	12,900	--	--	24,816	--
100-H Near-Shore Wells	m-Dinitrobenzene	99-65-0	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Methacrylonitrile	126-98-7	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.050	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Methapyrilene	91-80-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.3	1.3	--	--	--	--	--	--
100-H Near-Shore Wells	Methyl methacrylate	80-62-6	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.26	0.26	--	--	--	--	--	--
100-H Near-Shore Wells	Methyl methanesulfonate	66-27-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Methyl parathion	298-00-0	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Methylene chloride	75-09-2	µg/L	N	10/11/2009	2/25/2011	20	1	5.0	0.11	1.0	0.14	0.14	--	--	--	--
100-H Near-Shore Wells	Molybdenum	7439-98-7	µg/L	N	10/21/2009	5/18/2010	8	6	75	4.0	4.0	0.82	1.7	--	--	3.2	--
100-H Near-Shore Wells	Molybdenum	7439-98-7	µg/L	Y	10/21/2009	2/16/2011	10	8	80	4.0	4.0	0.80	2.9	--	--	3.2	--
100-H Near-Shore Wells	Naphthalene	91-20-3	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.40	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Nitrobenzene	98-95-3	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Nitrosopyrrolidine	930-55-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosodimethylamine	55-18-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosodimethylamine	62-75-9	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosodi-n-butylamine	924-16-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosodiphenylamine	86-30-6	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosomethylethylamine	10595-95-6	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosomorpholine	59-89-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	n-Nitrosopiperidine	100-75-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	O,O,O-Triethyl phosphorothioate	126-68-1	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	o-Toluidine	95-53-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Oxidation Reduction Potential	EH	mV	N	9/2/2009	2/25/2011	38	38	100	--	--	-1.33E+02	425	--	--	--	--
100-H Near-Shore Wells	Parathion	56-38-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	p-Dimethylaminoazobenzene	60-11-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pentachlorobenzene	608-93-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pentachloroethane	76-01-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pentachloronitrobenzene (PCNB)	82-68-8	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	pH Measurement	PH	unitless	N	1/16/2006	2/25/2011	188	188	100	--	--	6.6	9.3	--	--	8.2	11
100-H Near-Shore Wells	pH Measurement	PH	unitless	Y	1/21/2011	2/23/2011	2	2	100	--	--	7.3	7.9	--	--	8.2	--
100-H Near-Shore Wells	Phenacetin	62-44-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Phenanthrene	85-01-8	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.039	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Phenol	108-95-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.90	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Phorate	298-02-2	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Potassium	7440-09-7	µg/L	N	11/8/2006	1/24/2011	59	59	100	--	--	2,280	7,810	--	--	9,122	--
100-H Near-Shore Wells	Potassium	7440-09-7	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	2,090	8,120	--	--	9,122	--
100-H Near-Shore Wells	p-Phenylenediamine	106-50-3	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pronamide	23950-58-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pyrene	129-00-0	µg/L	N	10/11/2009	5/18/2010	5	0	0	0.023	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Pyridine	110-86-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.90	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Ruthenium-106	13967-48-1	pCi/L	N	10/11/2009	2/25/2011	25	0	0	-7.40E+01	58	--	--	--	--	128	--
100-H Near-Shore Wells	Safrol	94-59-7	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Silicon	7440-21-3	µg/L	N	10/21/2009	5/18/2010	8	8	100	--	--	13,000	15,500	--	--	33,949	--
100-H Near-Shore Wells	Silicon	7440-21-3	µg/L	Y	10/21/2009	2/16/2011	10	10	100	--	--	11,100	15,000	--	--	33,949	--
100-H Near-Shore Wells	Sodium	7440-23-5	µg/L	N	11/8/2006	1/24/2011	59	59	100	--	--	3,740	37,300	--	--	26,998	2
100-H Near-Shore Wells	Sodium	7440-23-5	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	3,780	39,300	--	--	26,998	4
100-H Near-Shore Wells	Specific Conductance	CONDUCT	µS/cm	N	1/16/2006	2/25/2011	188	188	100	--	--	2.8	1,037	--	--	541,000	--
100-H Near-Shore Wells	Specific Conductance	CONDUCT	µS/cm	Y	1/16/2006	2/23/2011	4	4	100	--	--	338	513	--	--	541,000	--
100-H Near-Shore Wells	Strontium	7440-24-6	µg/L	N	11/8/2006	1/24/2011	59	59	100	--	--	107	442	--	--	323	2
100-H Near-Shore Wells	Strontium	7440-24-6	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	105	443	--	--	323	2
100-H Near-Shore Wells	Styrene	100-42-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.036	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Sulfate	14808-79-8	µg/L	N	11/8/2006	2/25/2011	91	91	100	--	--	16,200	72,800	--	--	47,014	39
100-H Near-Shore Wells	sym-Trinitrobenzene	99-35-4	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Temperature	TEMPERATURE	Deg C	N	1/16/2006	2/25/2011	188	188	100	--	--	7.3	32	--	--	--	--
100-H Near-Shore Wells	Temperature	TEMPERATURE	Deg C	Y	2/23/2011	2/23/2011	1	1	100	--	--	15	15	--	--	--	--
100-H Near-Shore Wells	Tetrachloroethene	127-18-4	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.088	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Tetradecane	629-59-4	µg/L	N	10/11/2009	10/11/2009	2	0	0	2.0	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	µg/L	N	3/21/2010	5/18/2010	2	0	0	1.0	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Tetrahydrofuran	109-99-9	µg/L	N	10/11/2009	5/18/2010	9	0	0	1.1	2.0	--	--	--	--	--	--
100-H Near-Shore Wells	Thallium	7440-28-0	µg/L	N	10/11/2009	2/25/2011	21	1	4.8	0.050	0.10	0.10	0.10	--	--	1.7	--
100-H Near-Shore Wells	Thallium	7440-28-0	µg/L	Y	10/11/2009	2/16/2011	12	1	8.3	0.10	35	0.35	0.35	--	--	1.7	--
100-H Near-Shore Wells	Tin	7440-31-5	µg/L	N	10/21/2009	5/18/2010	8	0	0	0.050	39	--	--	--	--	22	--

Table L-11. Summary of Groundwater Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Tin	7440-31-5	µg/L	Y	10/21/2009	2/16/2011	10	1	10	0.10	39	0.38	0.38	--	--	22	--
100-H Near-Shore Wells	Toluene	108-88-3	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.062	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Total cresols	1319-77-3	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Total organic carbon	TOC	µg/L	N	11/10/2009	1/24/2011	9	7	78	300	300	271	574	--	--	2,706	--
100-H Near-Shore Wells	Total organic halides	59473-04-0	µg/L	N	1/24/2011	1/24/2011	1	0	0	5.0	5.0	--	--	--	--	--	--
100-H Near-Shore Wells	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.083	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	trans-1,3-Dichloropropene	10061-02-6	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.083	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.29	0.29	--	--	--	--	--	--
100-H Near-Shore Wells	Tributyl phosphate	126-73-8	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Trichloromonofluoromethane	75-69-4	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.041	0.11	--	--	--	--	--	--
100-H Near-Shore Wells	Tris-2-chloroethyl phosphate	115-96-8	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.50	0.50	--	--	--	--	--	--
100-H Near-Shore Wells	Turbidity	TURBIDITY	NTU	N	1/16/2006	2/25/2011	188	188	100	--	--	0.010	599	--	--	--	--
100-H Near-Shore Wells	Turbidity	TURBIDITY	NTU	Y	2/23/2011	2/23/2011	1	1	100	--	--	0.17	0.17	--	--	--	--
100-H Near-Shore Wells	Vinyl acetate	108-05-4	µg/L	N	3/21/2010	5/18/2010	6	0	0	0.17	0.18	--	--	--	--	--	--
100-H Near-Shore Wells	Vinyl chloride	75-01-4	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.032	1.0	--	--	--	--	--	--
100-H Near-Shore Wells	Xylenes (total)	1330-20-7	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.11	1.0	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.090	0.090	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.090	0.090	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,1-Trichloroethane	71-55-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.069	0.069	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,1-Trichloroethane	71-55-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.069	0.069	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.098	0.098	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.098	0.098	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,2-Trichloroethane	79-00-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,1,2-Trichloroethane	79-00-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,1-Dichloroethane	75-34-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.068	0.068	--	--	--	--	--	--
100-H Aquifer Tubes	1,1-Dichloroethane	75-34-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.068	0.068	--	--	--	--	--	--
100-H Aquifer Tubes	1,1-Dichloroethene	75-35-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.083	0.083	--	--	--	--	--	--
100-H Aquifer Tubes	1,1-Dichloroethene	75-35-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.083	0.083	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,3-Trichloropropane	96-18-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,3-Trichloropropane	96-18-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2,4-Trichlorobenzene	120-82-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.41	0.41	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.41	0.41	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dibromoethane	106-93-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.13	0.13	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dibromoethane	106-93-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.13	0.13	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichlorobenzene	95-50-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichlorobenzene	95-50-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloroethane	107-06-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.10	0.10	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloroethane	107-06-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.10	0.10	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloroethene (Total)	540-59-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloroethene (Total)	540-59-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloropropane	78-87-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.097	0.097	--	--	--	--	--	--
100-H Aquifer Tubes	1,2-Dichloropropane	78-87-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.097	0.097	--	--	--	--	--	--
100-H Aquifer Tubes	1,3-Dichlorobenzene	541-73-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,3-Dichlorobenzene	541-73-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Dichlorobenzene	106-46-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Dichlorobenzene	106-46-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Dioxane	123-91-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	7.6	7.6	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Dioxane	123-91-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	7.6	7.6	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Naphthoquinone	130-15-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1,4-Naphthoquinone	130-15-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1-Butanol	71-36-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	12	12	--	--	--	--	--	--
100-H Aquifer Tubes	1-Butanol	71-36-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	12	12	--	--	--	--	--	--
100-H Aquifer Tubes	1-Naphthylamine	134-32-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	1-Naphthylamine	134-32-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4,5-Trichlorophenol	95-95-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4,5-Trichlorophenol	95-95-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4,6-Trichlorophenol	88-06-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4,6-Trichlorophenol	88-06-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dichlorophenol	120-83-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dichlorophenol	120-83-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dimethylphenol	105-67-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dimethylphenol	105-67-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dinitrophenol	51-28-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dinitrophenol	51-28-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,4-Dinitrotoluene	121-14-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	2,4-Dinitrotoluene	121-14-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,6-Dichlorophenol	87-65-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,6-Dichlorophenol	87-65-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2,6-Dinitrotoluene	606-20-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.2	2.2	--	--	--	--	--	--
100-H Aquifer Tubes	2,6-Dinitrotoluene	606-20-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.2	2.2	--	--	--	--	--	--
100-H Aquifer Tubes	2-Acetylaminofluorene	53-96-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Acetylaminofluorene	53-96-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Butanone	78-93-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.52	0.52	--	--	--	--	--	--
100-H Aquifer Tubes	2-Butanone	78-93-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.52	0.52	--	--	--	--	--	--
100-H Aquifer Tubes	2-Chloronaphthalene	91-58-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Chloronaphthalene	91-58-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Chlorophenol	95-57-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Chlorophenol	95-57-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Hexanone	591-78-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.22	0.22	--	--	--	--	--	--
100-H Aquifer Tubes	2-Hexanone	591-78-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.22	0.22	--	--	--	--	--	--
100-H Aquifer Tubes	2-Methylnaphthalene	91-57-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Methylnaphthalene	91-57-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Methylphenol (cresol, o-)	95-48-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Naphthylamine	91-59-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Naphthylamine	91-59-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Nitroaniline	88-74-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Nitroaniline	88-74-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Nitrophenol	88-75-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Nitrophenol	88-75-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Picoline	109-06-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	2-Picoline	109-06-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	3,3'-Dichlorobenzidine	91-94-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	3,3'-Dimethylbenzidine	119-93-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.6	2.6	--	--	--	--	--	--
100-H Aquifer Tubes	3,3'-Dimethylbenzidine	119-93-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.6	2.6	--	--	--	--	--	--
100-H Aquifer Tubes	3-Methylcholanthrene	56-49-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	3-Methylcholanthrene	56-49-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	3-Nitroaniline	99-09-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	3-Nitroaniline	99-09-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Aminobiphenyl	92-67-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Aminobiphenyl	92-67-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Bromophenylphenyl ether	101-55-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Bromophenylphenyl ether	101-55-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chloro-3-methylphenol	59-50-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chloro-3-methylphenol	59-50-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chloroaniline	106-47-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chloroaniline	106-47-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Chlorophenylphenyl ether	7005-72-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Methyl-2-pentanone	108-10-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	4-Methyl-2-pentanone	108-10-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	4-Methylphenol (cresol, p-)	106-44-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	10	10	--	--	--	--	--	--
100-H Aquifer Tubes	4-Methylphenol (cresol, p-)	106-44-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	10	10	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	4-Nitroaniline	100-01-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Nitroaniline	100-01-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Nitrophenol	100-02-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Nitrophenol	100-02-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Nitroquinoline-1-oxide	56-57-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	5.0	5.0	--	--	--	--	--	--
100-H Aquifer Tubes	4-Nitroquinoline-1-oxide	56-57-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	5.0	5.0	--	--	--	--	--	--
100-H Aquifer Tubes	5-Nitro-o-toluidine	99-55-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	5-Nitro-o-toluidine	99-55-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	7,12-Dimethylbenz[a]anthracene	57-97-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	7,12-Dimethylbenz[a]anthracene	57-97-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acenaphthene	83-32-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acenaphthene	83-32-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acenaphthylene	208-96-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acenaphthylene	208-96-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acetonitrile	75-05-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acetonitrile	75-05-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acetophenone	98-86-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acetophenone	98-86-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Acrolein	107-02-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.8	2.8	--	--	--	--	--	--
100-H Aquifer Tubes	Acrolein	107-02-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.8	2.8	--	--	--	--	--	--
100-H Aquifer Tubes	Allyl chloride	107-05-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Allyl chloride	107-05-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	alpha,alpha-Dimethylphenethylamine	122-09-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	22	22	--	--	--	--	--	--
100-H Aquifer Tubes	alpha,alpha-Dimethylphenethylamine	122-09-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	22	22	--	--	--	--	--	--
100-H Aquifer Tubes	Alpha-BHC	319-84-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Alpha-BHC	319-84-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Aniline	62-53-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Aniline	62-53-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Anthracene	120-12-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Anthracene	120-12-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Aramite	140-57-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	20	20	--	--	--	--	--	--
100-H Aquifer Tubes	Aramite	140-57-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	20	20	--	--	--	--	--	--
100-H Aquifer Tubes	Azobenzene	103-33-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Azobenzene	103-33-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzene	71-43-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.064	0.064	--	--	--	--	--	--
100-H Aquifer Tubes	Benzene	71-43-2	µg/L	Y	12/16/2010	12/16/2010	1	1	100	--	--	0.095	0.095	--	--	--	--
100-H Aquifer Tubes	Benzo(a)anthracene	56-55-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(a)anthracene	56-55-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(a)pyrene	50-32-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(a)pyrene	50-32-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(b)fluoranthene	205-99-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(b)fluoranthene	205-99-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(ghi)perylene	191-24-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(ghi)perylene	191-24-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(k)fluoranthene	207-08-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzo(k)fluoranthene	207-08-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzyl alcohol	100-51-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Benzyl alcohol	100-51-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Beryllium	7440-41-7	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.050	4.0	--	--	--	--	2.3	--
100-H Aquifer Tubes	Beryllium	7440-41-7	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	4.0	--	--	--	--	2.3	--
100-H Aquifer Tubes	Beryllium-7	13966-02-4	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-1.80E+02	1,600	--	--	--	--	8.6	--
100-H Aquifer Tubes	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.013	0.013	--	--	--	--	--	--
100-H Aquifer Tubes	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.013	0.013	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-chloroethyl) ether	111-44-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	8/10/2010	12/16/2010	5	2	40	1.0	1.0	1.2	1.2	--	--	--	--
100-H Aquifer Tubes	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Bromide	24959-67-9	µg/L	N	1/30/2007	8/26/2008	15	7	47	45	120	56	220	--	--	124	4
100-H Aquifer Tubes	Bromodichloromethane	75-27-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.088	0.088	--	--	--	--	--	--
100-H Aquifer Tubes	Bromodichloromethane	75-27-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.088	0.088	--	--	--	--	--	--
100-H Aquifer Tubes	Bromoform	75-25-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.17	0.17	--	--	--	--	--	--
100-H Aquifer Tubes	Bromoform	75-25-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.17	0.17	--	--	--	--	--	--
100-H Aquifer Tubes	Bromomethane	74-83-9	µg/L	N	8/10/2010	12/16/2010	5	3	60	0.25	0.25	0.36	0.42	--	--	--	--
100-H Aquifer Tubes	Bromomethane	74-83-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.25	0.25	--	--	--	--	--	--
100-H Aquifer Tubes	Butylbenzylphthalate	85-68-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Butylbenzylphthalate	85-68-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Calcium	7440-70-2	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	19,200	34,400	--	--	52,644	--
100-H Aquifer Tubes	Calcium	7440-70-2	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	18,800	31,200	--	--	52,644	--
100-H Aquifer Tubes	Carbazole	86-74-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Carbazole	86-74-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Carbon disulfide	75-15-0	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.051	0.051	0.089	0.089	--	--	--	--
100-H Aquifer Tubes	Carbon disulfide	75-15-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.051	0.051	--	--	--	--	--	--
100-H Aquifer Tubes	Carbon tetrachloride	56-23-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	Carbon tetrachloride	56-23-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.12	0.12	--	--	--	--	--	--
100-H Aquifer Tubes	Chlorobenzene	108-90-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	Chlorobenzene	108-90-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.15	0.15	--	--	--	--	--	--
100-H Aquifer Tubes	Chlorobenzilate	510-15-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Chlorobenzilate	510-15-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Chloroethane	75-00-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.099	0.099	--	--	--	--	--	--
100-H Aquifer Tubes	Chloroethane	75-00-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.099	0.099	--	--	--	--	--	--
100-H Aquifer Tubes	Chloromethane	74-87-3	µg/L	N	8/10/2010	12/16/2010	5	3	60	2.0	2.0	0.14	0.24	--	--	--	--
100-H Aquifer Tubes	Chloromethane	74-87-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.077	0.077	--	--	--	--	--	--
100-H Aquifer Tubes	Chloroprene	126-99-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.097	0.097	--	--	--	--	--	--
100-H Aquifer Tubes	Chloroprene	126-99-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.097	0.097	--	--	--	--	--	--
100-H Aquifer Tubes	Chrysene	218-01-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Chrysene	218-01-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.087	0.087	0.093	0.093	--	--	--	--
100-H Aquifer Tubes	cis-1,2-Dichloroethylene	156-59-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.087	0.087	--	--	--	--	--	--
100-H Aquifer Tubes	cis-1,3-Dichloropropene	10061-01-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.073	0.073	--	--	--	--	--	--
100-H Aquifer Tubes	cis-1,3-Dichloropropene	10061-01-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.073	0.073	--	--	--	--	--	--
100-H Aquifer Tubes	Delta-BHC	319-86-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Delta-BHC	319-86-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Diallate	2303-16-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Diallate	2303-16-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dibenz[a,h]anthracene	53-70-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dibenz[a,h]anthracene	53-70-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dibenzofuran	132-64-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dibenzofuran	132-64-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dibromochloromethane	124-48-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.13	0.13	--	--	--	--	--	--
100-H Aquifer Tubes	Dibromochloromethane	124-48-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.13	0.13	--	--	--	--	--	--
100-H Aquifer Tubes	Dibromomethane	74-95-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.21	0.21	--	--	--	--	--	--
100-H Aquifer Tubes	Dibromomethane	74-95-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.21	0.21	--	--	--	--	--	--
100-H Aquifer Tubes	Dichlorodifluoromethane	75-71-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.084	0.084	--	--	--	--	--	--
100-H Aquifer Tubes	Dichlorodifluoromethane	75-71-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.084	0.084	--	--	--	--	--	--
100-H Aquifer Tubes	Diethylphthalate	84-66-2	µg/L	N	8/10/2010	12/16/2010	5	1	20	1.0	1.0	1.6	1.6	--	--	--	--
100-H Aquifer Tubes	Diethylphthalate	84-66-2	µg/L	Y	12/16/2010	12/16/2010	1	1	100	--	--	2.8	2.8	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Dimethoate	60-51-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dimethoate	60-51-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dimethyl phthalate	131-11-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dimethyl phthalate	131-11-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Di-n-butylphthalate	84-74-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Di-n-butylphthalate	84-74-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Di-n-octylphthalate	117-84-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Di-n-octylphthalate	117-84-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dinoseb(2-secButyl-4,6-dinitrophenol)	88-85-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Dissolved oxygen	DO	µg/L	N	1/30/2007	3/3/2011	247	247	100	--	--	900	54,400	--	--	--	--
100-H Aquifer Tubes	Dissolved oxygen	DO	µg/L	Y	1/31/2007	2/20/2007	17	17	100	--	--	6,500	11,400	--	--	--	--
100-H Aquifer Tubes	Disulfoton	298-04-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Disulfoton	298-04-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Endosulfan sulfate	1031-07-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Endosulfan sulfate	1031-07-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Endrin aldehyde	7421-93-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Endrin aldehyde	7421-93-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl cyanide	107-12-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.4	1.4	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl cyanide	107-12-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.4	1.4	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl methacrylate	97-63-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl methacrylate	97-63-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl methanesulfonate	62-50-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Ethyl methanesulfonate	62-50-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Ethylbenzene	100-41-4	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.086	0.086	0.11	0.11	--	--	--	--
100-H Aquifer Tubes	Ethylbenzene	100-41-4	µg/L	Y	12/16/2010	12/16/2010	1	1	100	--	--	0.19	0.19	--	--	--	--
100-H Aquifer Tubes	Famphur	52-85-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.7	1.7	--	--	--	--	--	--
100-H Aquifer Tubes	Famphur	52-85-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.7	1.7	--	--	--	--	--	--
100-H Aquifer Tubes	Fluoranthene	206-44-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Fluoranthene	206-44-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Fluorene	86-73-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Fluorene	86-73-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Gross alpha	12587-46-1	pCi/L	N	1/31/2007	2/4/2011	25	6	24	-3.70E-01	2.5	1.4	4.0	--	--	--	--
100-H Aquifer Tubes	Gross beta	12587-47-2	pCi/L	N	1/31/2007	2/4/2011	25	24	96	2.0	2.0	2.6	24	--	--	3.1	23
100-H Aquifer Tubes	Hexachlorobenzene	118-74-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorobenzene	118-74-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorobutadiene	87-68-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorobutadiene	87-68-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorocyclopentadiene	77-47-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorocyclopentadiene	77-47-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachloroethane	67-72-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachloroethane	67-72-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorophene	70-30-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	10	10	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachlorophene	70-30-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	10	10	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachloropropene	1888-71-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Hexachloropropene	1888-71-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Iodomethane	74-88-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.092	0.092	--	--	--	--	--	--
100-H Aquifer Tubes	Iodomethane	74-88-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.092	0.092	--	--	--	--	--	--
100-H Aquifer Tubes	Isobutyl alcohol	78-83-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	8.7	8.7	--	--	--	--	--	--
100-H Aquifer Tubes	Isobutyl alcohol	78-83-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	8.7	8.7	--	--	--	--	--	--
100-H Aquifer Tubes	Isodrin	465-73-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Isodrin	465-73-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Isophorone	78-59-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Isophorone	78-59-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Isosafrole	120-58-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.3	1.3	--	--	--	--	--	--
100-H Aquifer Tubes	Isosafrole	120-58-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.3	1.3	--	--	--	--	--	--
100-H Aquifer Tubes	Kepone	143-50-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	20	20	--	--	--	--	--	--
100-H Aquifer Tubes	Kepone	143-50-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	20	20	--	--	--	--	--	--
100-H Aquifer Tubes	Magnesium	7439-95-4	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	4,280	7,060	--	--	24,816	--
100-H Aquifer Tubes	Magnesium	7439-95-4	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	4,210	7,110	--	--	24,816	--
100-H Aquifer Tubes	m-Dinitrobenzene	99-65-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	m-Dinitrobenzene	99-65-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Methacrylonitrile	126-98-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.50	0.50	--	--	--	--	--	--
100-H Aquifer Tubes	Methacrylonitrile	126-98-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.50	0.50	--	--	--	--	--	--
100-H Aquifer Tubes	Methapyrilene	91-80-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.3	1.3	--	--	--	--	--	--
100-H Aquifer Tubes	Methapyrilene	91-80-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.3	1.3	--	--	--	--	--	--
100-H Aquifer Tubes	Methyl methacrylate	80-62-6	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.26	0.26	0.75	0.75	--	--	--	--
100-H Aquifer Tubes	Methyl methacrylate	80-62-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.26	0.26	--	--	--	--	--	--
100-H Aquifer Tubes	Methyl methanesulfonate	66-27-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Methyl methanesulfonate	66-27-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Methyl parathion	298-00-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Methyl parathion	298-00-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Methylene chloride	75-09-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Methylene chloride	75-09-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Naphthalene	91-20-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Naphthalene	91-20-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Nitrobenzene	98-95-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Nitrobenzene	98-95-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Nitrosopyrrolidine	930-55-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Nitrosopyrrolidine	930-55-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodimethylamine	55-18-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodimethylamine	55-18-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodimethylamine	62-75-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodimethylamine	62-75-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodi-n-butylamine	924-16-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodi-n-butylamine	924-16-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodiphenylamine	86-30-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosodiphenylamine	86-30-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosomethylethylamine	10595-95-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosomethylethylamine	10595-95-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosomorpholine	59-89-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosomorpholine	59-89-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosopiperidine	100-75-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	n-Nitrosopiperidine	100-75-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	O,O,O-Triethyl phosphorothioate	126-68-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	O,O,O-Triethyl phosphorothioate	126-68-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	O,O-Diethyl O-2-pyrazinyl phosphorothioate	297-97-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	o-Toluidine	95-53-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	o-Toluidine	95-53-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Oxidation Reduction Potential	EH	mV	N	1/30/2007	3/3/2011	245	245	100	--	--	-1.47E+02	598	--	--	--	--
100-H Aquifer Tubes	Oxidation Reduction Potential	EH	mV	Y	1/31/2007	2/20/2007	17	17	100	--	--	127	242	--	--	--	--
100-H Aquifer Tubes	Parathion	56-38-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Parathion	56-38-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	p-Dimethylaminoazobenzene	60-11-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	p-Dimethylaminoazobenzene	60-11-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Pentachlorobenzene	608-93-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pentachlorobenzene	608-93-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pentachloroethane	76-01-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pentachloroethane	76-01-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pentachloronitrobenzene (PCNB)	82-68-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pentachloronitrobenzene (PCNB)	82-68-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	pH Measurement	PH	unitless	N	1/30/2007	3/3/2011	247	247	100	--	--	6.1	8.2	--	--	8.2	--
100-H Aquifer Tubes	pH Measurement	PH	unitless	Y	1/31/2007	2/20/2007	17	17	100	--	--	6.9	7.9	--	--	8.2	--
100-H Aquifer Tubes	Phenacetin	62-44-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phenacetin	62-44-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phenanthrene	85-01-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phenanthrene	85-01-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phenol	108-95-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phenol	108-95-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phorate	298-02-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Phorate	298-02-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Potassium	7440-09-7	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	1,080	2,510	--	--	9,122	--
100-H Aquifer Tubes	Potassium	7440-09-7	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	1,100	2,500	--	--	9,122	--
100-H Aquifer Tubes	p-Phenylenediamine	106-50-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	p-Phenylenediamine	106-50-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pronamide	23950-58-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pronamide	23950-58-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pyrene	129-00-0	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pyrene	129-00-0	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pyridine	110-86-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Pyridine	110-86-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	2.0	2.0	--	--	--	--	--	--
100-H Aquifer Tubes	Ruthenium-106	13967-48-1	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-2.80E+01	4.3	--	--	--	--	128	--
100-H Aquifer Tubes	Safrol	94-59-7	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Safrol	94-59-7	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Sodium	7440-23-5	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	2,230	7,360	--	--	26,998	--
100-H Aquifer Tubes	Sodium	7440-23-5	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	2,230	7,380	--	--	26,998	--
100-H Aquifer Tubes	Specific Conductance	CONDUCT	µS/cm	N	1/30/2007	3/3/2011	247	247	100	--	--	29	562	--	--	541,000	--
100-H Aquifer Tubes	Specific Conductance	CONDUCT	µS/cm	Y	1/31/2007	2/20/2007	17	17	100	--	--	159	574	--	--	541,000	--
100-H Aquifer Tubes	Strontium	7440-24-6	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	91	158	--	--	323	--
100-H Aquifer Tubes	Strontium	7440-24-6	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	91	145	--	--	323	--
100-H Aquifer Tubes	Styrene	100-42-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.074	0.074	--	--	--	--	--	--
100-H Aquifer Tubes	Styrene	100-42-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.074	0.074	--	--	--	--	--	--
100-H Aquifer Tubes	Sulfate	14808-79-8	µg/L	N	1/30/2007	2/4/2011	68	68	100	--	--	10,000	73,500	--	--	47,014	19
100-H Aquifer Tubes	sym-Trinitrobenzene	99-35-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	sym-Trinitrobenzene	99-35-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Temperature	TEMPERATURE	Deg C	N	1/30/2007	3/3/2011	247	247	100	--	--	3.8	38	--	--	--	--
100-H Aquifer Tubes	Temperature	TEMPERATURE	Deg C	Y	1/31/2007	2/20/2007	17	17	100	--	--	3.9	10	--	--	--	--
100-H Aquifer Tubes	Tetrachloroethene	127-18-4	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.18	0.18	0.47	0.47	--	--	--	--
100-H Aquifer Tubes	Tetrachloroethene	127-18-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.18	0.18	--	--	--	--	--	--
100-H Aquifer Tubes	Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Tetraethyl dithiopyrophosphate (Sulfotepp)	3689-24-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Tetrahydrofuran	109-99-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.1	1.1	--	--	--	--	--	--
100-H Aquifer Tubes	Tetrahydrofuran	109-99-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.1	1.1	--	--	--	--	--	--
100-H Aquifer Tubes	Thallium	7440-28-0	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.050	0.10	--	--	--	--	1.7	--
100-H Aquifer Tubes	Toluene	108-88-3	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.072	0.072	0.46	0.46	--	--	--	--
100-H Aquifer Tubes	Toluene	108-88-3	µg/L	Y	12/16/2010	12/16/2010	1	1	100	--	--	1.1	1.1	--	--	--	--
100-H Aquifer Tubes	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.083	0.083	--	--	--	--	--	--
100-H Aquifer Tubes	trans-1,2-Dichloroethylene	156-60-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.083	0.083	--	--	--	--	--	--
100-H Aquifer Tubes	trans-1,3-Dichloropropene	10061-02-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.083	0.083	--	--	--	--	--	--
100-H Aquifer Tubes	trans-1,3-Dichloropropene	10061-02-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.083	0.083	--	--	--	--	--	--

Table L-12. Summary of Aquifer Tube Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.29	0.29	--	--	--	--	--	--
100-H Aquifer Tubes	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.29	0.29	--	--	--	--	--	--
100-H Aquifer Tubes	Tributyl phosphate	126-73-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Tributyl phosphate	126-73-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.0	1.0	--	--	--	--	--	--
100-H Aquifer Tubes	Trichloromonofluoromethane	75-69-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Trichloromonofluoromethane	75-69-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.11	0.11	--	--	--	--	--	--
100-H Aquifer Tubes	Turbidity	TURBIDITY	NTU	N	11/1/2007	3/3/2011	236	236	100	--	--	--	894	--	--	--	--
100-H Aquifer Tubes	Vinyl acetate	108-05-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.18	0.18	--	--	--	--	--	--
100-H Aquifer Tubes	Vinyl acetate	108-05-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.18	0.18	--	--	--	--	--	--
100-H Aquifer Tubes	Vinyl chloride	75-01-4	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.084	0.084	--	--	--	--	--	--
100-H Aquifer Tubes	Vinyl chloride	75-01-4	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.084	0.084	--	--	--	--	--	--
100-H Aquifer Tubes	Xylenes (total)	1330-20-7	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.20	0.20	0.68	0.68	--	--	--	--
100-H Aquifer Tubes	Xylenes (total)	1330-20-7	µg/L	Y	12/16/2010	12/16/2010	1	1	100	--	--	1.4	1.4	--	--	--	--

Table L-13. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-PORE-WATER	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	1,2-Dichlorobenzene	95-50-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	1,3-Dichlorobenzene	541-73-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	1,4-Dichlorobenzene	106-46-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2,4,5-Trichlorophenol	95-95-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	2,4,6-Trichlorophenol	88-06-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2,4-Dichlorophenol	120-83-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2,4-Dimethylphenol	105-67-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2,4-Dinitrophenol	51-28-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	2,4-Dinitrotoluene	121-14-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2,6-Dinitrotoluene	606-20-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2-Chloronaphthalene	91-58-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2-Chlorophenol	95-57-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2-Methylnaphthalene	91-57-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	2-Nitroaniline	88-74-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	2-Nitrophenol	88-75-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	3-Nitroaniline	99-09-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	4-Bromophenylphenyl ether	101-55-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	4-Chloro-3-methylphenol	59-50-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	4-Chloroaniline	106-47-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	4-Nitroaniline	100-01-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	4-Nitrophenol	100-02-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	--	--	--	--
100-H-PORE-WATER	Acenaphthene	83-32-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Acenaphthylene	208-96-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Alkalinity	ALKALINITY	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	56,000	64,000	--	--	147,127	--
100-H-PORE-WATER	Alpha-BHC	319-84-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Americium-241	14596-10-2	pCi/L	N	1/9/2007	2/4/2007	2	0	0	22	73	--	--	--	--	7.70E-05	--
100-H-PORE-WATER	Anthracene	120-12-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Benzo(a)anthracene	56-55-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Benzo(a)pyrene	50-32-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Benzo(b)fluoranthene	205-99-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Benzo(ghi)perylene	191-24-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Benzo(k)fluoranthene	207-08-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Beryllium	7440-41-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.10	0.10	--	--	--	--	2.3	--
100-H-PORE-WATER	Beryllium-7	13966-02-4	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0.29	0.42	--	--	--	--	8.6	--
100-H-PORE-WATER	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	1/9/2007	2/4/2007	2	1	50	10	10	3.0	3.0	--	--	--	--
100-H-PORE-WATER	Bismuth	7440-69-9	µg/L	N	1/9/2007	2/4/2007	2	1	50	4.0	4.0	4.9	4.9	--	--	--	--
100-H-PORE-WATER	Boron	7440-42-8	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	14	22	--	--	36	--
100-H-PORE-WATER	Bromide	24959-67-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	250	250	--	--	--	--	124	--
100-H-PORE-WATER	Butylbenzylphthalate	85-68-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Calcium	7440-70-2	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	20,300	20,400	--	--	52,644	--
100-H-PORE-WATER	Carbazole	86-74-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Ceriodaphnia Number Young per Female	CERIO_YOUNG_FEM	Avg # youn	N	2/4/2007	2/4/2007	1	1	100	--	--	20	20	--	--	--	--
100-H-PORE-WATER	Ceriodaphnia Survival	CERIO_SURV	%	N	2/4/2007	2/4/2007	1	1	100	--	--	89	89	--	--	--	--
100-H-PORE-WATER	Chlorine	7782-50-5	µg/L	N	2/4/2007	2/4/2007	1	0	0	20	20	--	--	--	--	--	--
100-H-PORE-WATER	Chrysene	218-01-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Delta-BHC	319-86-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Dibenz[a,h]anthracene	53-70-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--

Table L-13. Summary of Pore Water Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-PORE-WATER	Dibenzofuran	132-64-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Diethylphthalate	84-66-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Dimethyl phthalate	131-11-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Di-n-butylphthalate	84-74-2	µg/L	N	1/9/2007	2/4/2007	2	1	50	10	10	1.0	1.0	--	--	--	--
100-H-PORE-WATER	Di-n-octylphthalate	117-84-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Dissolved oxygen	DO	µg/L	N	1/9/2007	1/9/2007	1	1	100	--	--	10,160	10,160	--	--	--	--
100-H-PORE-WATER	Endosulfan sulfate	1031-07-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Endrin aldehyde	7421-93-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Endrin ketone	53494-70-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	FETAX deformity	FETAX_DEFORM	%	N	2/4/2007	2/4/2007	1	1	100	--	--	3.2	3.2	--	--	--	--
100-H-PORE-WATER	FETAX growth [Percent of CTL]	FETAX_GROWTH	%	N	2/4/2007	2/4/2007	1	1	100	--	--	99	99	--	--	--	--
100-H-PORE-WATER	FETAX Survival	FETAX_SURV	%	N	2/4/2007	2/4/2007	1	1	100	--	--	95	95	--	--	--	--
100-H-PORE-WATER	Fluoranthene	206-44-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Fluorene	86-73-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	gamma-Chlordane	5566-34-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-PORE-WATER	Hardness	HARDNESS	µg/L	N	2/4/2007	2/4/2007	1	1	100	--	--	78,000	78,000	--	--	--	--
100-H-PORE-WATER	Hexachlorobenzene	118-74-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Hexachlorobutadiene	87-68-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Hexachlorocyclopentadiene	77-47-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Hexachloroethane	67-72-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Isophorone	78-59-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Lithium	7439-93-2	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	1.2	1.8	--	--	11,321	--
100-H-PORE-WATER	Magnesium	7439-95-4	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	4,890	5,110	--	--	24,816	--
100-H-PORE-WATER	Molybdenum	7439-98-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	1.6	1.6	--	--	--	--	3.2	--
100-H-PORE-WATER	Naphthalene	91-20-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Nitrobenzene	98-95-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Nitrogen in ammonia	NH3-N	µg/L	N	1/9/2007	2/4/2007	2	0	0	100	100	--	--	--	--	--	--
100-H-PORE-WATER	Nitrogen in Nitrite	NO2-N	µg/L	N	1/9/2007	2/4/2007	2	0	0	76	76	--	--	--	--	--	--
100-H-PORE-WATER	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	160	260	--	--	--	--
100-H-PORE-WATER	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/L	N	1/9/2007	2/4/2007	2	1	50	100	100	150	150	--	--	--	--
100-H-PORE-WATER	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	n-Nitrosodiphenylamine	86-30-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	pH Measurement	PH	unitless	N	1/9/2007	1/9/2007	1	1	100	--	--	9.0	9.0	--	--	8.2	1
100-H-PORE-WATER	Phenanthrene	85-01-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Phenol	108-95-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Potassium	7440-09-7	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	785	861	--	--	9,122	--
100-H-PORE-WATER	Pyrene	129-00-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	10	12	--	--	--	--	--	--
100-H-PORE-WATER	Ruthenium-106	13967-48-1	pCi/L	N	1/9/2007	2/4/2007	2	0	0	110	150	--	--	--	--	128	--
100-H-PORE-WATER	Silicon	7440-21-3	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2,730	2,730	--	--	33,949	--
100-H-PORE-WATER	Sodium	7440-23-5	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2,390	2,440	--	--	26,998	--
100-H-PORE-WATER	Specific Conductance	CONDUCT	µS/cm	N	1/9/2007	1/9/2007	1	1	100	--	--	157	157	--	--	541,000	--
100-H-PORE-WATER	Strontium	7440-24-6	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	91	97	--	--	323	--
100-H-PORE-WATER	Sulfate	14808-79-8	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	9,700	16,100	--	--	47,014	--
100-H-PORE-WATER	Temperature	TEMPERATURE	Deg C	N	1/9/2007	1/9/2007	1	1	100	--	--	5.1	5.1	--	--	--	--
100-H-PORE-WATER	Thallium	7440-28-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	5.6	5.6	--	--	--	--	1.7	--
100-H-PORE-WATER	Thorium-228	14274-82-9	pCi/L	N	1/9/2007	2/4/2007	2	0	0	-2.50E-02	0.20	--	--	--	--	--	--
100-H-PORE-WATER	Tin	7440-31-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	3.6	3.6	--	--	--	--	22	--
100-H-PORE-WATER	Total dissolved solids	TDS	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	70,000	115,000	--	--	258,189	--
100-H-PORE-WATER	Total organic carbon	TOC	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	1,200	1,400	--	--	2,706	--
100-H-PORE-WATER	Total petroleum hydrocarbons	TPH	µg/L	N	1/9/2007	2/4/2007	2	0	0	1,100	1,100	--	--	--	--	--	--
100-H-PORE-WATER	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/L	N	1/9/2007	2/4/2007	2	0	0	30	30	--	--	--	--	--	--
100-H-PORE-WATER	Total suspended solids	TSS	µg/L	N	1/9/2007	2/4/2007	2	0	0	5,000	5,000	--	--	--	--	--	--
100-H-PORE-WATER	Water depth 1996 to 2006	WATER_DEPTH	m	N	1/9/2007	2/4/2007	2	2	100	--	--	1.0	1.2	--	--	--	--
100-H-PORE-WATER	Water depth exceedance from 1996 to 2006	PCT_DEPTH_EXCEE	m	N	1/9/2007	2/4/2007	2	2	100	--	--	70	82	--	--	--	--

Table L-14. Summary of Seep/Spring Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SEEP	1,1,1-Trichloroethane	71-55-6	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.23	0.23	--	--	--	--	--	--
100-H-SEEP	1,1,2-Trichloroethane	79-00-5	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.31	0.31	--	--	--	--	--	--
100-H-SEEP	1,1-Dichloroethane	75-34-3	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.19	0.19	--	--	--	--	--	--
100-H-SEEP	1,1-Dichloroethene	75-35-4	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.23	0.23	--	--	--	--	--	--
100-H-SEEP	1,2-Dichloroethane	107-06-2	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.17	0.17	--	--	--	--	--	--
100-H-SEEP	1,4-Dichlorobenzene	106-46-7	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.14	0.14	--	--	--	--	--	--
100-H-SEEP	1-Butanol	71-36-3	µg/L	N	11/1/2000	11/1/2000	1	0	0	6.6	6.6	--	--	--	--	--	--
100-H-SEEP	2-Butanone	78-93-3	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.70	0.70	--	--	--	--	--	--
100-H-SEEP	4-Methyl-2-pentanone	108-10-1	µg/L	N	11/1/2000	11/1/2000	1	0	0	1.3	1.3	--	--	--	--	--	--
100-H-SEEP	Benzene	71-43-2	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.23	0.23	--	--	--	--	--	--
100-H-SEEP	Beryllium	7440-41-7	µg/L	N	11/1/2000	10/26/2004	13	3	23	0.011	0.68	0.011	0.80	--	--	2.3	--
100-H-SEEP	Beryllium	7440-41-7	µg/L	Y	10/27/2002	10/26/2004	10	0	0	0.0098	0.68	--	--	--	--	2.3	--
100-H-SEEP	Beryllium-7	13966-02-4	pCi/L	N	9/20/1993	10/26/2004	25	4	16	-2.07E+01	11	3.3	44	--	--	8.6	3
100-H-SEEP	Calcium	7440-70-2	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	18,000	48,000	--	--	52,644	--
100-H-SEEP	Calcium	7440-70-2	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	18,000	25,700	--	--	52,644	--
100-H-SEEP	Carbon disulfide	75-15-0	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.30	0.30	--	--	--	--	--	--
100-H-SEEP	Carbon tetrachloride	56-23-5	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.23	0.23	--	--	--	--	--	--
100-H-SEEP	Chlorobenzene	108-90-7	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.28	0.28	--	--	--	--	--	--
100-H-SEEP	cis-1,2-Dichloroethylene	156-59-2	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.18	0.18	--	--	--	--	--	--
100-H-SEEP	Ethyl cyanide	107-12-0	µg/L	N	11/1/2000	11/1/2000	1	0	0	2.6	2.6	--	--	--	--	--	--
100-H-SEEP	Gross alpha	12587-46-1	pCi/L	N	9/20/1993	10/26/2004	32	18	56	-2.14E-01	4.0	1.0	20	--	--	--	--
100-H-SEEP	Gross beta	12587-47-2	pCi/L	N	9/20/1993	10/26/2004	27	25	93	0.99	2.5	2.0	72	--	--	3.1	23
100-H-SEEP	Magnesium	7439-95-4	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	4,300	7,900	--	--	24,816	--
100-H-SEEP	Magnesium	7439-95-4	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	4,360	6,200	--	--	24,816	--
100-H-SEEP	Methylene chloride	75-09-2	µg/L	N	9/26/1994	11/1/2000	2	1	50	0.37	0.37	1.2	1.2	--	--	--	--
100-H-SEEP	Nitrogen in Nitrite	NO2-N	µg/L	N	10/27/1997	10/26/2004	14	0	0	1.0	17	--	--	--	--	--	--
100-H-SEEP	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/L	N	11/7/2000	4/30/2001	2	2	100	--	--	2,200	2.20E+07	--	--	--	--
100-H-SEEP	pH Measurement	PH	unitless	N	11/20/2003	11/20/2003	1	1	100	--	--	7.1	7.1	--	--	8.2	--
100-H-SEEP	Potassium	7440-09-7	µg/L	N	9/26/1994	11/20/2003	8	5	63	1,330	3,000	1,720	3,000	--	--	9,122	--
100-H-SEEP	Ruthenium-106	13967-48-1	pCi/L	N	9/20/1993	10/26/2004	19	0	0	-1.37E+01	16	--	--	--	--	128	--
100-H-SEEP	Sodium	7440-23-5	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	2,100	18,000	--	--	26,998	--
100-H-SEEP	Sodium	7440-23-5	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	2,050	7,960	--	--	26,998	--
100-H-SEEP	Specific Conductance	CONDUCT	µS/cm	N	11/20/2003	11/20/2003	1	1	100	--	--	162	162	--	--	541,000	--
100-H-SEEP	Strontium	7440-24-6	µg/L	N	9/5/1995	11/20/2003	7	7	100	--	--	101	200	--	--	323	--
100-H-SEEP	Strontium	7440-24-6	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	97	130	--	--	323	--
100-H-SEEP	Sulfate	14808-79-8	µg/L	N	8/25/1994	10/26/2004	17	17	100	--	--	8,900	54,000	--	--	47,014	2
100-H-SEEP	Tetrachloroethene	127-18-4	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.57	0.57	--	--	--	--	--	--
100-H-SEEP	Tetrahydrofuran	109-99-9	µg/L	N	11/1/2000	11/1/2000	1	0	0	1.5	1.5	--	--	--	--	--	--
100-H-SEEP	Thallium	7440-28-0	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	0.011	0.18	--	--	1.7	--
100-H-SEEP	Thallium	7440-28-0	µg/L	Y	10/27/2003	10/26/2004	4	2	50	0.0090	0.0090	0.013	0.017	--	--	1.7	--
100-H-SEEP	Toluene	108-88-3	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.33	0.33	--	--	--	--	--	--
100-H-SEEP	trans-1,2-Dichloroethylene	156-60-5	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.26	0.26	--	--	--	--	--	--
100-H-SEEP	Uranium [radionuclide]	U_rad	pCi/L	N	10/27/1999	10/27/2003	6	6	100	--	--	0.40	4.6	--	--	--	--
100-H-SEEP	Vinyl chloride	75-01-4	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.17	0.17	--	--	--	--	--	--
100-H-SEEP	Xylenes (total)	1330-20-7	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.61	0.61	--	--	--	--	--	--

Table L-15. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SW	1,2,4-Trichlorobenzene	120-82-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	1,2-Dichlorobenzene	95-50-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	1,3-Dichlorobenzene	541-73-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	1,4-Dichlorobenzene	106-46-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2,4,5-Trichlorophenol	95-95-4	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	2,4,6-Trichlorophenol	88-06-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2,4-Dichlorophenol	120-83-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2,4-Dimethylphenol	105-67-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2,4-Dinitrophenol	51-28-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	2,4-Dinitrotoluene	121-14-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2,6-Dinitrotoluene	606-20-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2-Chloronaphthalene	91-58-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2-Chlorophenol	95-57-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2-Methylnaphthalene	91-57-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2-Methylphenol (cresol, o-)	95-48-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	2-Nitroaniline	88-74-4	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	2-Nitrophenol	88-75-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	3,3'-Dichlorobenzidine	91-94-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	3-Nitroaniline	99-09-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	4-Bromophenylphenyl ether	101-55-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	4-Chloro-3-methylphenol	59-50-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	4-Chloroaniline	106-47-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	4-Chlorophenylphenyl ether	7005-72-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	4-Nitroaniline	100-01-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	4-Nitrophenol	100-02-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	--	--	--	--
100-H-SW	Acenaphthene	83-32-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Acenaphthylene	208-96-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Alpha-BHC	319-84-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Americium-241	14596-10-2	pCi/L	N	1/9/2007	2/6/2007	2	0	0	17	50	--	--	--	--	7.70E-05	--
100-H-SW	Anthracene	120-12-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Benzo(a)anthracene	56-55-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Benzo(a)pyrene	50-32-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Benzo(b)fluoranthene	205-99-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Benzo(ghi)perylene	191-24-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Benzo(k)fluoranthene	207-08-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Beryllium	7440-41-7	µg/L	N	9/28/1995	2/6/2007	5	3	60	0.10	0.10	3.2	13	--	--	2.3	3
100-H-SW	Beryllium-7	13966-02-4	pCi/L	N	1/9/2007	2/6/2007	2	0	0	-8.60E-02	-3.10E-02	--	--	--	--	8.6	--
100-H-SW	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Bis(2-Chloroethoxy)methane	111-91-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Bis(2-chloroethyl) ether	111-44-4	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Bis(2-ethylhexyl) phthalate	117-81-7	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	0.80	1.0	--	--	--	--
100-H-SW	Bismuth	7440-69-9	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	4.0	6.1	--	--	--	--
100-H-SW	Boron	7440-42-8	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	15	17	--	--	36	--
100-H-SW	Bromide	24959-67-9	µg/L	N	10/30/1995	2/6/2007	4	0	0	72	250	--	--	--	--	124	--
100-H-SW	Butylbenzylphthalate	85-68-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Calcium	7440-70-2	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	20,100	180,000	--	--	52,644	3
100-H-SW	Carbazole	86-74-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Chrysene	218-01-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--

Table L-15. Summary of Surface Water Analytes Without Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SW	Delta-BHC	319-86-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Dibenz[a,h]anthracene	53-70-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Dibenzofuran	132-64-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Diethylphthalate	84-66-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Dimethyl phthalate	131-11-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Di-n-butylphthalate	84-74-2	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	0.60	0.70	--	--	--	--
100-H-SW	Di-n-octylphthalate	117-84-0	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Dissolved oxygen	DO	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	10,220	11,680	--	--	--	--
100-H-SW	Endosulfan sulfate	1031-07-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Endrin aldehyde	7421-93-4	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Endrin ketone	53494-70-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Fluoranthene	206-44-0	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Fluorene	86-73-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	gamma-Chlordane	5566-34-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	--	--	--	--
100-H-SW	Hexachlorobenzene	118-74-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Hexachlorobutadiene	87-68-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Hexachlorocyclopentadiene	77-47-4	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Hexachloroethane	67-72-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Highest Specific Conductance [µS/cm]	AQ_BASKET_CONDU	µS/cm	N	8/27/2007	8/27/2007	1	1	100	--	--	165	165	--	--	--	--
100-H-SW	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Isophorone	78-59-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Lithium	7439-93-2	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	1.2	1.9	--	--	11,321	--
100-H-SW	Magnesium	7439-95-4	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	5,130	130,000	--	--	24,816	3
100-H-SW	Molybdenum	7439-98-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	1.6	1.6	--	--	--	--	3.2	--
100-H-SW	Naphthalene	91-20-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Nitrobenzene	98-95-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Nitrogen in Nitrite	NO2-N	µg/L	N	10/30/1995	2/6/2007	4	0	0	43	76	--	--	--	--	--	--
100-H-SW	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	160	290	--	--	--	--
100-H-SW	n-Nitrosodi-n-dipropylamine	621-64-7	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	n-Nitrosodiphenylamine	86-30-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	pH Measurement	PH	unitless	N	1/9/2007	2/6/2007	2	2	100	--	--	9.0	9.7	--	--	8.2	2
100-H-SW	Phenanthrene	85-01-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Phenol	108-95-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Potassium	7440-09-7	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	848	51,000	--	--	9,122	3
100-H-SW	Pyrene	129-00-0	µg/L	N	1/9/2007	2/6/2007	2	0	0	10	11	--	--	--	--	--	--
100-H-SW	Ruthenium-106	13967-48-1	pCi/L	N	1/9/2007	2/6/2007	2	0	0	110	150	--	--	--	--	128	--
100-H-SW	Silicon	7440-21-3	µg/L	N	1/9/2007	2/6/2007	2	2	100	--	--	2,570	3,450	--	--	33,949	--
100-H-SW	Sodium	7440-23-5	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	2,420	20,000	--	--	26,998	--
100-H-SW	Specific Conductance	CONDUCT	µS/cm	N	1/9/2007	2/6/2007	2	2	100	--	--	149	155	--	--	541,000	--
100-H-SW	Strontium	7440-24-6	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	91	1,200	--	--	323	3
100-H-SW	Sulfate	14808-79-8	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	9,500	23,000	--	--	47,014	--
100-H-SW	Temperature	TEMPERATURE	Deg C	N	1/9/2007	2/6/2007	2	2	100	--	--	5.0	5.6	--	--	--	--
100-H-SW	Thallium	7440-28-0	µg/L	N	1/9/2007	2/6/2007	2	0	0	5.6	5.6	--	--	--	--	1.7	--
100-H-SW	Thorium-228	14274-82-9	pCi/L	N	1/9/2007	2/6/2007	2	0	0	0	0.059	--	--	--	--	--	--
100-H-SW	Tin	7440-31-5	µg/L	N	9/28/1995	2/6/2007	5	2	40	3.6	30	96	170	--	--	22	2
100-H-SW	Total petroleum hydrocarbons	TPH	µg/L	N	1/9/2007	2/6/2007	2	0	0	1,100	1,100	--	--	--	--	--	--
100-H-SW	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/L	N	1/9/2007	2/6/2007	2	0	0	30	30	--	--	--	--	--	--

Table L-16. Summary of Groundwater Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	Aluminum	7429-90-5	µg/L	Y	10/7/2009	6/3/2010	9	0	0	5.0	10	--	--	87	--	7.1	--
100-D Near-Shore Wells	Antimony-125	14234-35-6	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-7.90E+00	1.2	--	--	367,000	--	--	--
100-D Near-Shore Wells	Aroclor-1016	12674-11-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.14	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1221	11104-28-2	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.14	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1232	11141-16-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.14	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1242	53469-21-9	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.14	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1248	12672-29-6	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.14	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1254	11097-69-1	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.093	--	--	0.014	--	--	--
100-D Near-Shore Wells	Aroclor-1260	11096-82-5	µg/L	N	10/8/2009	5/12/2010	3	0	0	0.084	0.093	--	--	0.014	--	--	--
100-D Near-Shore Wells	Cadmium	7440-43-9	µg/L	N	11/8/2006	2/23/2011	36	0	0	0.10	4.0	--	--	0.22	--	0.92	--
100-D Near-Shore Wells	Cesium-134	13967-70-9	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-2.81E+00	27	--	--	21	--	1.1	--
100-D Near-Shore Wells	Cesium-137	10045-97-3	pCi/L	N	10/7/2009	2/23/2011	14	0	0	-6.60E+00	1.4	--	--	43	--	8.6	--
100-D Near-Shore Wells	Cobalt-60	10198-40-0	pCi/L	N	10/7/2009	2/23/2011	14	0	0	-3.90E+00	2.2	--	--	3,760	--	0.023	--
100-D Near-Shore Wells	Europium-152	14683-23-9	pCi/L	N	10/7/2009	2/23/2011	14	0	0	-1.80E+01	18	--	--	25,500	--	222	--
100-D Near-Shore Wells	Europium-154	15585-10-1	pCi/L	N	10/7/2009	2/23/2011	14	0	0	-1.30E+01	3.8	--	--	21,600	--	70	--
100-D Near-Shore Wells	Europium-155	14391-16-3	pCi/L	N	10/7/2009	2/23/2011	14	0	0	-3.20E+01	2.1	--	--	26,400	--	5.9	--
100-D Near-Shore Wells	Gamma-BHC (Lindane)	58-89-9	µg/L	N	10/8/2009	10/8/2009	2	0	0	0.70	0.70	--	--	0.080	--	--	--
100-D Near-Shore Wells	Mercury	7439-97-6	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.050	0.10	--	--	0.012	--	0.0030	--
100-D Near-Shore Wells	Mercury	7439-97-6	µg/L	Y	10/7/2009	6/3/2010	9	0	0	0.050	0.10	--	--	0.012	--	0.0030	--
100-D Near-Shore Wells	Pentachlorophenol	87-86-5	µg/L	N	10/8/2009	6/3/2010	6	0	0	0.50	1.3	--	--	13	--	--	--
100-D Near-Shore Wells	Phosphate	14265-44-2	µg/L	N	3/24/2010	6/3/2010	6	0	0	429	2,150	--	--	1,000	--	162	--
100-D Near-Shore Wells	Potassium-40	13966-00-2	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-6.70E+01	12	--	--	250	--	203	--
100-D Near-Shore Wells	Trichloroethene	79-01-6	µg/L	N	8/10/2009	6/3/2010	10	0	0	0.21	1.0	--	--	47	--	--	--

Table L-17. Summary of Aquifer Tube Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	0.0010	--	--	--
100-D Aquifer Tubes	Aldrin	309-00-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	1,900	--	--	--
100-D Aquifer Tubes	Antimony-125	14234-35-6	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-3.20E+00	3.9	--	--	367,000	--	--	--
100-D Aquifer Tubes	Aroclor-1016	12674-11-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1221	11104-28-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.20	0.20	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1232	11141-16-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1242	53469-21-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1248	12672-29-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1254	11097-69-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Aroclor-1260	11096-82-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.090	0.10	--	--	0.014	--	--	--
100-D Aquifer Tubes	Cadmium	7440-43-9	µg/L	Y	1/12/2006	2/18/2011	62	0	0	0.10	4.0	--	--	0.22	--	0.92	--
100-D Aquifer Tubes	Cesium-137	10045-97-3	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-3.70E+00	0.94	--	--	43	--	8.6	--
100-D Aquifer Tubes	Chlordane	57-74-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.040	0.23	--	--	0.0043	--	--	--
100-D Aquifer Tubes	Cobalt-60	10198-40-0	pCi/L	N	12/14/2010	12/14/2010	4	0	0	0.55	9.5	--	--	3,760	--	0.023	--
100-D Aquifer Tubes	Cyanide	57-12-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	4.0	4.0	--	--	5.2	--	8.4	--
100-D Aquifer Tubes	Dieldrin	60-57-1	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	0.0019	--	--	--
100-D Aquifer Tubes	Endosulfan I	959-98-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.020	--	--	0.056	--	--	--
100-D Aquifer Tubes	Endosulfan II	33213-65-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	0.056	--	--	--
100-D Aquifer Tubes	Endrin	72-20-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	0.0023	--	--	--
100-D Aquifer Tubes	Europium-154	15585-10-1	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-1.10E+01	18	--	--	21,600	--	70	--
100-D Aquifer Tubes	Europium-155	14391-16-3	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-9.40E+00	20	--	--	26,400	--	5.9	--
100-D Aquifer Tubes	Gamma-BHC (Lindane)	58-89-9	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.0030	0.010	--	--	0.080	--	--	--
100-D Aquifer Tubes	Heptachlor	76-44-8	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.0030	0.010	--	--	0.0038	--	--	--
100-D Aquifer Tubes	Heptachlor epoxide	1024-57-3	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.010	0.010	--	--	0.0038	--	--	--
100-D Aquifer Tubes	Mercury	7439-97-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-D Aquifer Tubes	Methoxychlor	72-43-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.0010	0.010	--	--	0.030	--	--	--
100-D Aquifer Tubes	Pentachlorophenol	87-86-5	µg/L	N	7/23/2010	12/14/2010	12	0	0	1.3	1.3	--	--	13	--	--	--
100-D Aquifer Tubes	Potassium-40	13966-00-2	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-3.00E+01	62	--	--	250	--	203	--
100-D Aquifer Tubes	Technetium-99	14133-76-7	pCi/L	N	12/14/2010	12/14/2010	4	0	0	-7.70E+00	-1.20E+00	--	--	667,000	--	0.83	--
100-D Aquifer Tubes	Toxaphene	8001-35-2	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.66	0.66	--	--	2.00E-04	--	--	--
100-D Aquifer Tubes	Trichloroethene	79-01-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.21	0.25	--	--	47	--	--	--

Table L-18. Summary of Pore Water Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0010	--	--	--
100-D-PORE-WATER	Aldrin	309-00-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	1,900	--	--	--
100-D-PORE-WATER	Alpha-Chlordane	5103-71-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0043	--	--	--
100-D-PORE-WATER	Antimony	7440-36-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	2.5	4.0	--	--	30	--	55	--
100-D-PORE-WATER	Antimony-125	14234-35-6	pCi/L	N	1/29/2006	11/25/2006	7	0	0	16	54	--	--	367,000	--	--	--
100-D-PORE-WATER	Aroclor-1016	12674-11-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1221	11104-28-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1232	11141-16-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1242	53469-21-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1248	12672-29-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1254	11097-69-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Aroclor-1260	11096-82-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-PORE-WATER	Cadmium	7440-43-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.30	0.70	--	--	0.22	--	0.92	--
100-D-PORE-WATER	Cesium-134	13967-70-9	pCi/L	N	1/29/2006	11/25/2006	7	0	0	8.7	28	--	--	21	--	1.1	--
100-D-PORE-WATER	Cesium-137	10045-97-3	pCi/L	N	1/29/2006	11/25/2006	7	0	0	7.4	24	--	--	43	--	8.6	--
100-D-PORE-WATER	Cobalt	7440-48-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.50	1.2	--	--	23	--	0.92	--
100-D-PORE-WATER	Cobalt-60	10198-40-0	pCi/L	N	1/29/2006	11/25/2006	7	0	0	8.4	25	--	--	3,760	--	0.023	--
100-D-PORE-WATER	Copper	7440-50-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.70	2.9	--	--	10	--	0.81	--
100-D-PORE-WATER	Dieldrin	60-57-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0019	--	--	--
100-D-PORE-WATER	Endosulfan I	959-98-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.056	--	--	--
100-D-PORE-WATER	Endosulfan II	33213-65-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.056	--	--	--
100-D-PORE-WATER	Endrin	72-20-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0023	--	--	--
100-D-PORE-WATER	Europium-152	14683-23-9	pCi/L	N	1/29/2006	11/25/2006	7	0	0	17	60	--	--	25,500	--	222	--
100-D-PORE-WATER	Europium-154	15585-10-1	pCi/L	N	1/29/2006	11/25/2006	7	0	0	21	66	--	--	21,600	--	70	--
100-D-PORE-WATER	Europium-155	14391-16-3	pCi/L	N	1/29/2006	11/25/2006	7	0	0	20	47	--	--	26,400	--	5.9	--
100-D-PORE-WATER	Fluoride	16984-48-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	250	250	--	--	300	--	1,047	--
100-D-PORE-WATER	Gamma-BHC (Lindane)	58-89-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.080	--	--	--
100-D-PORE-WATER	Heptachlor	76-44-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0038	--	--	--
100-D-PORE-WATER	Heptachlor epoxide	1024-57-3	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.0038	--	--	--
100-D-PORE-WATER	Lead	7439-92-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	1.6	3.1	--	--	2.1	--	0.92	--
100-D-PORE-WATER	Mercury	7439-97-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-D-PORE-WATER	Methoxychlor	72-43-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.050	0.051	--	--	0.030	--	--	--
100-D-PORE-WATER	Pentachlorophenol	87-86-5	µg/L	N	1/29/2006	11/25/2006	7	0	0	25	26	--	--	13	--	--	--
100-D-PORE-WATER	Phosphate	14265-44-2	µg/L	N	1/29/2006	11/25/2006	4	0	0	250	250	--	--	1,000	--	162	--
100-D-PORE-WATER	Potassium-40	13966-00-2	pCi/L	N	1/29/2006	11/25/2006	7	0	0	180	700	--	--	250	--	203	--
100-D-PORE-WATER	Radium-228	15262-20-1	pCi/L	N	1/29/2006	11/25/2006	7	0	0	-3.77E-01	0.97	--	--	3.4	--	--	--
100-D-PORE-WATER	Silver	7440-22-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.50	1.4	--	--	2.6	--	5.3	--
100-D-PORE-WATER	Strontium-90	10098-97-2	pCi/L	N	1/29/2006	11/25/2006	7	0	0	-5.30E-02	0.22	--	--	278	--	0.0010	--
100-D-PORE-WATER	Thorium-230	14269-63-7	pCi/L	N	1/29/2006	11/25/2006	7	0	0	-9.10E-02	0.075	--	--	2,570	--	--	--
100-D-PORE-WATER	Thorium-232	TH-232	pCi/L	N	1/29/2006	11/25/2006	7	0	0	-1.50E-02	0.037	--	--	304	--	--	--
100-D-PORE-WATER	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/L	N	1/29/2006	11/25/2006	7	0	0	100	101	--	--	500	--	--	--
100-D-PORE-WATER	Toxaphene	8001-35-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.50	0.51	--	--	2.00E-04	--	--	--
100-D-PORE-WATER	Tritium	10028-17-8	pCi/L	N	1/29/2006	11/25/2006	7	0	0	-9.46E+01	39	--	--	2.65E+08	--	119	--
100-D-PORE-WATER	Uranium	7440-61-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	14	21	--	--	5.0	--	9.9	--
100-D-PORE-WATER	Vanadium	7440-62-2	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.60	0.90	--	--	100	--	12	--

Table L-19. Summary of Seep/Spring Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SEEP	Acetone	67-64-1	µg/L	N	11/4/1996	11/4/1996	1	0	0	1.4	1.4	--	--	1,500	--	--	--
100-D-SEEP	Aluminum	7429-90-5	µg/L	Y	10/21/2002	10/27/2003	4	0	0	12	17	--	--	87	--	7.1	--
100-D-SEEP	Antimony-125	14234-35-6	pCi/L	N	8/23/1993	10/26/2004	17	0	0	-7.10E+00	1.9	--	--	367,000	--	--	--
100-D-SEEP	Cerium/Praseodymium-144	CE/PR-144	pCi/L	N	8/23/1993	9/26/1994	4	0	0	-3.43E+00	7.6	--	--	1,600	--	--	--
100-D-SEEP	Cesium-134	13967-70-9	pCi/L	N	8/23/1993	10/26/2004	19	0	0	-1.73E+00	3.0	--	--	21	--	1.1	--
100-D-SEEP	Cobalt	7440-48-4	µg/L	Y	10/21/2002	10/27/2003	4	0	0	1.2	5.0	--	--	23	--	0.92	--
100-D-SEEP	Europium-152	14683-23-9	pCi/L	N	10/27/2003	10/26/2004	4	0	0	-1.21E+00	5.9	--	--	25,500	--	222	--
100-D-SEEP	Europium-155	14391-16-3	pCi/L	N	8/23/1993	10/26/2004	19	0	0	-4.80E+00	3.3	--	--	26,400	--	5.9	--
100-D-SEEP	Phosphate	14265-44-2	µg/L	N	11/4/1996	10/27/2003	3	0	0	83	250	--	--	1,000	--	162	--
100-D-SEEP	Silver	7440-22-4	µg/L	Y	10/21/2002	10/26/2004	8	0	0	0.0017	1.7	--	--	2.6	--	5.3	--
100-D-SEEP	Technetium-99	14133-76-7	pCi/L	N	8/23/1993	9/11/1995	6	0	0	-2.37E-01	0.078	--	--	667,000	--	0.83	--
100-D-SEEP	Trichloroethene	79-01-6	µg/L	N	11/4/1996	11/4/1996	1	0	0	0.39	0.39	--	--	47	--	--	--
100-D-SEEP	Zinc-65	13982-39-3	pCi/L	N	8/23/1993	9/26/1994	4	0	0	-2.83E+00	0.38	--	--	13	--	--	--
100-D-SEEP	Zirconium/Niobium-95	ZR/NB-95	pCi/L	N	8/23/1993	9/26/1994	4	0	0	-1.49E+00	1.2	--	--	7,330	--	--	--

Table L-20. Summary of Surface Water Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0010	--	--	--
100-D-SW	Aldrin	309-00-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	1,900	--	--	--
100-D-SW	Alpha-Chlordane	5103-71-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0043	--	--	--
100-D-SW	Antimony-125	14234-35-6	pCi/L	N	1/29/2006	2/6/2006	6	0	0	26	41	--	--	367,000	--	--	--
100-D-SW	Aroclor-1016	12674-11-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1221	11104-28-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1232	11141-16-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1242	53469-21-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1248	12672-29-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1254	11097-69-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Aroclor-1260	11096-82-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.40	0.41	--	--	0.014	--	--	--
100-D-SW	Cadmium	7440-43-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.70	0.70	--	--	0.22	--	0.92	--
100-D-SW	Cesium-134	13967-70-9	pCi/L	N	1/29/2006	2/6/2006	6	0	0	13	20	--	--	21	--	1.1	--
100-D-SW	Cesium-137	10045-97-3	pCi/L	N	1/29/2006	2/6/2006	6	0	0	10	16	--	--	43	--	8.6	--
100-D-SW	Chromium	7440-47-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.6	1.6	--	--	64	--	2.4	--
100-D-SW	Cobalt	7440-48-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.2	1.2	--	--	23	--	0.92	--
100-D-SW	Cobalt-60	10198-40-0	pCi/L	N	1/29/2006	2/6/2006	6	0	0	10	20	--	--	3,760	--	0.023	--
100-D-SW	Copper	7440-50-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.2	2.9	--	--	10	--	0.81	--
100-D-SW	Dieldrin	60-57-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0019	--	--	--
100-D-SW	Endosulfan I	959-98-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.056	--	--	--
100-D-SW	Endosulfan II	33213-65-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.056	--	--	--
100-D-SW	Endrin	72-20-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0023	--	--	--
100-D-SW	Europium-152	14683-23-9	pCi/L	N	1/29/2006	2/6/2006	6	0	0	31	39	--	--	25,500	--	222	--
100-D-SW	Europium-154	15585-10-1	pCi/L	N	1/29/2006	2/6/2006	6	0	0	30	51	--	--	21,600	--	70	--
100-D-SW	Europium-155	14391-16-3	pCi/L	N	1/29/2006	2/6/2006	6	0	0	36	41	--	--	26,400	--	5.9	--
100-D-SW	Fluoride	16984-48-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	250	250	--	--	300	--	1,047	--
100-D-SW	Gamma-BHC (Lindane)	58-89-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.080	--	--	--
100-D-SW	Heptachlor	76-44-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0038	--	--	--
100-D-SW	Heptachlor epoxide	1024-57-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.0038	--	--	--
100-D-SW	Lead	7439-92-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	3.1	3.1	--	--	2.1	--	0.92	--
100-D-SW	Mercury	7439-97-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-D-SW	Methoxychlor	72-43-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.050	0.052	--	--	0.030	--	--	--
100-D-SW	Pentachlorophenol	87-86-5	µg/L	N	1/29/2006	2/6/2006	6	0	0	25	26	--	--	13	--	--	--
100-D-SW	Phosphate	14265-44-2	µg/L	N	1/29/2006	2/6/2006	3	0	0	250	250	--	--	1,000	--	162	--
100-D-SW	Potassium-40	13966-00-2	pCi/L	N	1/29/2006	2/6/2006	6	0	0	100	270	--	--	250	--	203	--
100-D-SW	Radium-226	13982-63-3	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-3.09E-01	0.21	--	--	4.1	--	1.1	--
100-D-SW	Radium-228	15262-20-1	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-3.39E-01	0.36	--	--	3.4	--	--	--
100-D-SW	Silver	7440-22-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.4	1.4	--	--	2.6	--	5.3	--
100-D-SW	Strontium-90	10098-97-2	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-3.34E-01	0.048	--	--	278	--	0.0010	--
100-D-SW	Thorium-230	14269-63-7	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-8.70E-02	0.18	--	--	2,570	--	--	--
100-D-SW	Thorium-232	TH-232	pCi/L	N	1/29/2006	2/6/2006	6	0	0	-2.00E-02	0.026	--	--	304	--	--	--
100-D-SW	Toxaphene	8001-35-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.50	0.52	--	--	2.00E-04	--	--	--
100-D-SW	Uranium	7440-61-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	21	21	--	--	5.0	--	9.9	--
100-D-SW	Uranium-235	15117-96-1	pCi/L	N	1/29/2006	2/6/2006	6	0	0	0	0.050	--	--	217	--	--	--
100-D-SW	Vanadium	7440-62-2	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.90	0.90	--	--	100	--	12	--

Table L-21. Summary of Groundwater Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Acetone	67-64-1	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.34	1.0	--	--	1,500	--	--	--
100-H Near-Shore Wells	Antimony	7440-36-0	µg/L	N	11/8/2006	2/25/2011	70	0	0	0.30	72	--	--	30	--	55	--
100-H Near-Shore Wells	Antimony-125	14234-35-6	pCi/L	N	10/11/2009	2/25/2011	25	0	0	-1.90E+01	17	--	--	367,000	--	--	--
100-H Near-Shore Wells	Aroclor-1016	12674-11-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.14	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1221	11104-28-2	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.14	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1232	11141-16-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.14	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1242	53469-21-9	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.14	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1248	12672-29-6	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.14	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1254	11097-69-1	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.093	--	--	0.014	--	--	--
100-H Near-Shore Wells	Aroclor-1260	11096-82-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.084	0.093	--	--	0.014	--	--	--
100-H Near-Shore Wells	Cadmium	7440-43-9	µg/L	N	11/8/2006	2/25/2011	70	0	0	0.10	4.0	--	--	0.22	--	0.92	--
100-H Near-Shore Wells	Cesium-134	13967-70-9	pCi/L	N	10/11/2009	2/25/2011	25	0	0	-4.80E+01	33	--	--	21	--	1.1	--
100-H Near-Shore Wells	Cesium-137	10045-97-3	pCi/L	N	10/11/2009	2/25/2011	26	0	0	-5.30E+00	7.7	--	--	43	--	8.6	--
100-H Near-Shore Wells	Cobalt-60	10198-40-0	pCi/L	N	10/11/2009	2/25/2011	26	0	0	-3.00E+00	9.4	--	--	3,760	--	0.023	--
100-H Near-Shore Wells	Cyanide	57-12-5	µg/L	N	11/10/2009	1/24/2011	8	0	0	4.0	4.0	--	--	5.2	--	8.4	--
100-H Near-Shore Wells	Europium-152	14683-23-9	pCi/L	N	10/11/2009	2/25/2011	26	0	0	-1.90E+01	23	--	--	25,500	--	222	--
100-H Near-Shore Wells	Europium-154	15585-10-1	pCi/L	N	10/11/2009	2/25/2011	26	0	0	-2.40E+01	7.6	--	--	21,600	--	70	--
100-H Near-Shore Wells	Europium-155	14391-16-3	pCi/L	N	10/11/2009	2/25/2011	26	0	0	-2.60E+01	14	--	--	26,400	--	5.9	--
100-H Near-Shore Wells	Gamma-BHC (Lindane)	58-89-9	µg/L	N	10/11/2009	10/11/2009	2	0	0	0.70	0.70	--	--	0.080	--	--	--
100-H Near-Shore Wells	Iodine-129	15046-84-1	pCi/L	N	1/24/2011	1/24/2011	1	0	0	-8.52E-02	-8.52E-02	--	--	38,400	--	9.00E-07	--
100-H Near-Shore Wells	Mercury	7439-97-6	µg/L	N	10/11/2009	2/25/2011	21	0	0	0.050	0.10	--	--	0.012	--	0.0030	--
100-H Near-Shore Wells	Mercury	7439-97-6	µg/L	Y	10/11/2009	5/18/2010	9	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-H Near-Shore Wells	Pentachlorophenol	87-86-5	µg/L	N	10/11/2009	5/18/2010	4	0	0	0.50	1.3	--	--	13	--	--	--
100-H Near-Shore Wells	Phosphate	14265-44-2	µg/L	N	10/21/2009	2/25/2011	19	0	0	307	429	--	--	1,000	--	162	--
100-H Near-Shore Wells	Trichloroethene	79-01-6	µg/L	N	10/11/2009	2/25/2011	20	0	0	0.21	1.0	--	--	47	--	--	--

Table L-22. Summary of Aquifer Tube Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.0010	--	--	--
100-H Aquifer Tubes	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.0010	--	--	--
100-H Aquifer Tubes	Acetone	67-64-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.34	0.34	--	--	1,500	--	--	--
100-H Aquifer Tubes	Acetone	67-64-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.34	0.34	--	--	1,500	--	--	--
100-H Aquifer Tubes	Aldrin	309-00-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	1,900	--	--	--
100-H Aquifer Tubes	Aldrin	309-00-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	1,900	--	--	--
100-H Aquifer Tubes	Antimony	7440-36-0	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.30	56	--	--	30	--	55	--
100-H Aquifer Tubes	Antimony	7440-36-0	µg/L	Y	3/3/2009	3/3/2011	10	0	0	38	56	--	--	30	--	55	--
100-H Aquifer Tubes	Antimony-125	14234-35-6	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-1.00E+01	0.18	--	--	367,000	--	--	--
100-H Aquifer Tubes	Aroclor-1016	12674-11-2	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1221	11104-28-2	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.20	0.20	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1232	11141-16-5	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1242	53469-21-9	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1248	12672-29-6	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1254	11097-69-1	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Aroclor-1260	11096-82-5	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.090	0.10	--	--	0.014	--	--	--
100-H Aquifer Tubes	Cadmium	7440-43-9	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.10	4.0	--	--	0.22	--	0.92	--
100-H Aquifer Tubes	Cadmium	7440-43-9	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	4.0	--	--	0.22	--	0.92	--
100-H Aquifer Tubes	Cesium-134	13967-70-9	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-1.50E+01	41	--	--	21	--	1.1	--
100-H Aquifer Tubes	Cesium-137	10045-97-3	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-6.70E+00	-6.90E-01	--	--	43	--	8.6	--
100-H Aquifer Tubes	Chlordane	57-74-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.23	0.23	--	--	0.0043	--	--	--
100-H Aquifer Tubes	Chlordane	57-74-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.23	0.23	--	--	0.0043	--	--	--
100-H Aquifer Tubes	Chloroform	67-66-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.10	0.10	--	--	28	--	--	--
100-H Aquifer Tubes	Cobalt	7440-48-4	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	5.0	--	--	23	--	0.92	--
100-H Aquifer Tubes	Cobalt	7440-48-4	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	5.0	--	--	23	--	0.92	--
100-H Aquifer Tubes	Cobalt-60	10198-40-0	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-8.70E+00	4.9	--	--	3,760	--	0.023	--
100-H Aquifer Tubes	Copper	7440-50-8	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	10	--	0.81	--
100-H Aquifer Tubes	Copper	7440-50-8	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	10	--	0.81	--
100-H Aquifer Tubes	Cyanide	57-12-5	µg/L	N	8/10/2010	12/16/2010	6	0	0	4.0	4.0	--	--	5.2	--	8.4	--
100-H Aquifer Tubes	Dieldrin	60-57-1	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.0019	--	--	--
100-H Aquifer Tubes	Dieldrin	60-57-1	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.0019	--	--	--
100-H Aquifer Tubes	Endosulfan I	959-98-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.056	--	--	--
100-H Aquifer Tubes	Endosulfan I	959-98-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.056	--	--	--
100-H Aquifer Tubes	Endosulfan II	33213-65-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.056	--	--	--
100-H Aquifer Tubes	Endosulfan II	33213-65-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.056	--	--	--
100-H Aquifer Tubes	Endrin	72-20-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.0023	--	--	--
100-H Aquifer Tubes	Endrin	72-20-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.0023	--	--	--
100-H Aquifer Tubes	Europium-152	14683-23-9	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-1.30E+01	4.6	--	--	25,500	--	222	--
100-H Aquifer Tubes	Europium-154	15585-10-1	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-6.20E+00	7.1	--	--	21,600	--	70	--
100-H Aquifer Tubes	Europium-155	14391-16-3	pCi/L	N	9/15/2010	12/16/2010	4	0	0	-9.50E+00	37	--	--	26,400	--	5.9	--
100-H Aquifer Tubes	Gamma-BHC (Lindane)	58-89-9	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.080	--	--	--
100-H Aquifer Tubes	Gamma-BHC (Lindane)	58-89-9	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.080	--	--	--
100-H Aquifer Tubes	Heptachlor	76-44-8	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.0038	--	--	--
100-H Aquifer Tubes	Heptachlor	76-44-8	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.0038	--	--	--
100-H Aquifer Tubes	Heptachlor epoxide	1024-57-3	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.0038	--	--	--
100-H Aquifer Tubes	Heptachlor epoxide	1024-57-3	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.0038	--	--	--
100-H Aquifer Tubes	Iron	7439-89-6	µg/L	Y	3/3/2009	3/3/2011	10	0	0	18	38	--	--	1,000	--	570	--
100-H Aquifer Tubes	Mercury	7439-97-6	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.050	0.10	--	--	0.012	--	0.0030	--
100-H Aquifer Tubes	Methoxychlor	72-43-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.010	0.010	--	--	0.030	--	--	--
100-H Aquifer Tubes	Methoxychlor	72-43-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.010	0.010	--	--	0.030	--	--	--
100-H Aquifer Tubes	Nickel	7440-02-0	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	45	--	1.6	--
100-H Aquifer Tubes	Nickel	7440-02-0	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	45	--	1.6	--
100-H Aquifer Tubes	Pentachlorophenol	87-86-5	µg/L	N	8/10/2010	12/16/2010	5	0	0	1.3	1.3	--	--	13	--	--	--
100-H Aquifer Tubes	Pentachlorophenol	87-86-5	µg/L	Y	12/16/2010	12/16/2010	1	0	0	1.3	1.3	--	--	13	--	--	--
100-H Aquifer Tubes	Silver	7440-22-4	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.10	7.0	--	--	2.6	--	5.3	--

Table L-22. Summary of Aquifer Tube Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Silver	7440-22-4	µg/L	Y	3/3/2009	3/3/2011	10	0	0	5.0	7.0	--	--	2.6	--	5.3	--
100-H Aquifer Tubes	Toxaphene	8001-35-2	µg/L	N	8/10/2010	12/16/2010	5	0	0	0.66	0.66	--	--	2.00E-04	--	--	--
100-H Aquifer Tubes	Toxaphene	8001-35-2	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.66	0.66	--	--	2.00E-04	--	--	--
100-H Aquifer Tubes	Trichloroethene	79-01-6	µg/L	Y	12/16/2010	12/16/2010	1	0	0	0.25	0.25	--	--	47	--	--	--
100-H Aquifer Tubes	Tritium	10028-17-8	pCi/L	N	9/15/2010	12/16/2010	4	0	0	20	150	--	--	2.65E+08	--	119	--
100-H Aquifer Tubes	Vanadium	7440-62-2	µg/L	N	3/3/2009	3/3/2011	10	0	0	12	17	--	--	100	--	12	--
100-H Aquifer Tubes	Vanadium	7440-62-2	µg/L	Y	3/3/2009	3/3/2011	10	0	0	12	17	--	--	100	--	12	--
100-H Aquifer Tubes	Zinc	7440-66-6	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	9.0	--	--	90	--	22	--

Table L-23. Summary of Pore Water Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-PORE-WATER	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0010	--	--	--
100-H-PORE-WATER	Aldrin	309-00-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	1,900	--	--	--
100-H-PORE-WATER	Alpha-Chlordane	5103-71-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0043	--	--	--
100-H-PORE-WATER	Antimony	7440-36-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	2.5	2.5	--	--	30	--	55	--
100-H-PORE-WATER	Antimony-125	14234-35-6	pCi/L	N	1/9/2007	2/4/2007	2	0	0	27	42	--	--	367,000	--	--	--
100-H-PORE-WATER	Aroclor-1016	12674-11-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1221	11104-28-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1232	11141-16-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1242	53469-21-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1248	12672-29-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1254	11097-69-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Aroclor-1260	11096-82-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-PORE-WATER	Cadmium	7440-43-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.30	0.30	--	--	0.22	--	0.92	--
100-H-PORE-WATER	Cesium-134	13967-70-9	pCi/L	N	1/9/2007	2/4/2007	2	0	0	15	23	--	--	21	--	1.1	--
100-H-PORE-WATER	Cesium-137	10045-97-3	pCi/L	N	1/9/2007	2/4/2007	2	0	0	13	18	--	--	43	--	8.6	--
100-H-PORE-WATER	Chromium	7440-47-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	1.2	1.2	--	--	64	--	2.4	--
100-H-PORE-WATER	Cobalt	7440-48-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.50	0.50	--	--	23	--	0.92	--
100-H-PORE-WATER	Cobalt-60	10198-40-0	pCi/L	N	1/9/2007	2/4/2007	2	0	0	19	21	--	--	3,760	--	0.023	--
100-H-PORE-WATER	Dieldrin	60-57-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0019	--	--	--
100-H-PORE-WATER	Endosulfan I	959-98-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.056	--	--	--
100-H-PORE-WATER	Endosulfan II	33213-65-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.056	--	--	--
100-H-PORE-WATER	Endrin	72-20-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0023	--	--	--
100-H-PORE-WATER	Europium-152	14683-23-9	pCi/L	N	1/9/2007	2/4/2007	2	0	0	30	49	--	--	25,500	--	222	--
100-H-PORE-WATER	Europium-154	15585-10-1	pCi/L	N	1/9/2007	2/4/2007	2	0	0	38	51	--	--	21,600	--	70	--
100-H-PORE-WATER	Europium-155	14391-16-3	pCi/L	N	1/9/2007	2/4/2007	2	0	0	38	48	--	--	26,400	--	5.9	--
100-H-PORE-WATER	Fluoride	16984-48-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	250	250	--	--	300	--	1,047	--
100-H-PORE-WATER	Gamma-BHC (Lindane)	58-89-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.080	--	--	--
100-H-PORE-WATER	Heptachlor	76-44-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0038	--	--	--
100-H-PORE-WATER	Heptachlor epoxide	1024-57-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.0038	--	--	--
100-H-PORE-WATER	Lead	7439-92-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	1.6	1.6	--	--	2.1	--	0.92	--
100-H-PORE-WATER	Mercury	7439-97-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-H-PORE-WATER	Methoxychlor	72-43-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.062	--	--	0.030	--	--	--
100-H-PORE-WATER	Nickel	7440-02-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	2.2	2.2	--	--	45	--	1.6	--
100-H-PORE-WATER	Pentachlorophenol	87-86-5	µg/L	N	1/9/2007	2/4/2007	2	0	0	25	31	--	--	13	--	--	--
100-H-PORE-WATER	Phosphate	14265-44-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	250	250	--	--	1,000	--	162	--
100-H-PORE-WATER	Phosphorus	7723-14-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	13	13	--	--	1,000	--	--	--
100-H-PORE-WATER	Potassium-40	13966-00-2	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0	1,900	--	--	250	--	203	--
100-H-PORE-WATER	Radium-226	13982-63-3	pCi/L	N	1/9/2007	2/4/2007	2	0	0	-1.93E-01	0.026	--	--	4.1	--	1.1	--
100-H-PORE-WATER	Radium-228	15262-20-1	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0.29	0.42	--	--	3.4	--	--	--
100-H-PORE-WATER	Selenium	7782-49-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	4.3	4.3	--	--	5.0	--	11	--
100-H-PORE-WATER	Silver	7440-22-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.50	0.50	--	--	2.6	--	5.3	--
100-H-PORE-WATER	Strontium-90	10098-97-2	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0.023	0.20	--	--	278	--	0.0010	--
100-H-PORE-WATER	Technetium-99	14133-76-7	pCi/L	N	2/4/2007	2/4/2007	1	0	0	1.0	1.0	--	--	667,000	--	0.83	--
100-H-PORE-WATER	Thorium-230	14269-63-7	pCi/L	N	1/9/2007	2/4/2007	2	0	0	-4.90E-02	0.60	--	--	2,570	--	--	--
100-H-PORE-WATER	Thorium-232	TH-232	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0.025	0.099	--	--	304	--	--	--
100-H-PORE-WATER	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/L	N	1/9/2007	2/4/2007	2	0	0	100	122	--	--	500	--	--	--
100-H-PORE-WATER	Toxaphene	8001-35-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.050	0.50	--	--	2.00E-04	--	--	--
100-H-PORE-WATER	Tritium	10028-17-8	pCi/L	N	1/9/2007	2/4/2007	2	0	0	19	59	--	--	2.65E+08	--	119	--
100-H-PORE-WATER	Uranium	7440-61-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	14	14	--	--	5.0	--	9.9	--
100-H-PORE-WATER	Uranium-235	15117-96-1	pCi/L	N	1/9/2007	2/4/2007	2	0	0	--	--	--	--	217	--	--	--
100-H-PORE-WATER	Vanadium	7440-62-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.60	0.60	--	--	100	--	12	--

Table L-24. Summary of Seep/Spring Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SEEP	Acetone	67-64-1	µg/L	N	11/1/2000	11/1/2000	1	0	0	4.0	4.0	--	--	1,500	--	--	--
100-H-SEEP	Aluminum	7429-90-5	µg/L	Y	10/27/2002	11/20/2003	6	0	0	17	34	--	--	87	--	7.1	--
100-H-SEEP	Antimony-125	14234-35-6	pCi/L	N	9/20/1993	10/26/2004	19	0	0	-5.75E+00	3.7	--	--	367,000	--	--	--
100-H-SEEP	Cerium/Praseodymium-144	CE/PR-144	pCi/L	N	9/20/1993	9/26/1994	4	0	0	-8.16E-01	11	--	--	1,600	--	--	--
100-H-SEEP	Cobalt	7440-48-4	µg/L	N	10/27/2002	11/20/2003	6	0	0	4.8	5.0	--	--	23	--	0.92	--
100-H-SEEP	Cobalt	7440-48-4	µg/L	Y	10/27/2002	11/20/2003	6	0	0	4.8	5.0	--	--	23	--	0.92	--
100-H-SEEP	Cobalt-60	10198-40-0	pCi/L	N	9/20/1993	10/26/2004	20	0	0	-4.08E+00	3.1	--	--	3,760	--	0.023	--
100-H-SEEP	Europium-152	14683-23-9	pCi/L	N	10/27/2003	10/26/2004	4	0	0	-4.18E-01	2.9	--	--	25,500	--	222	--
100-H-SEEP	Europium-154	15585-10-1	pCi/L	N	9/20/1993	10/26/2004	20	0	0	-8.15E+00	4.1	--	--	21,600	--	70	--
100-H-SEEP	Manganese	7439-96-5	µg/L	Y	10/27/2002	11/20/2003	6	0	0	1.2	1.9	--	--	120	--	39	--
100-H-SEEP	Trichloroethene	79-01-6	µg/L	N	11/1/2000	11/1/2000	1	0	0	0.16	0.16	--	--	47	--	--	--
100-H-SEEP	Vanadium	7440-62-2	µg/L	Y	10/27/2002	11/20/2003	6	0	0	5.0	9.7	--	--	100	--	12	--
100-H-SEEP	Zinc-65	13982-39-3	pCi/L	N	9/20/1993	9/26/1994	4	0	0	-1.39E+00	1.6	--	--	13	--	--	--
100-H-SEEP	Zirconium/Niobium-95	ZR/NB-95	pCi/L	N	9/20/1993	9/26/1994	4	0	0	-1.69E+00	0.34	--	--	7,330	--	--	--

Table L-25. Summary of Surface Water Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SW	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0010	--	--	--
100-H-SW	Aldrin	309-00-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	1,900	--	--	--
100-H-SW	Alpha-Chlordane	5103-71-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0043	--	--	--
100-H-SW	Antimony-125	14234-35-6	pCi/L	N	1/9/2007	2/6/2007	2	0	0	32	39	--	--	367,000	--	--	--
100-H-SW	Aroclor-1016	12674-11-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1221	11104-28-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1232	11141-16-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1242	53469-21-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1248	12672-29-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1254	11097-69-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Aroclor-1260	11096-82-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.40	0.50	--	--	0.014	--	--	--
100-H-SW	Cesium-134	13967-70-9	pCi/L	N	1/9/2007	2/6/2007	2	0	0	18	22	--	--	21	--	1.1	--
100-H-SW	Cesium-137	10045-97-3	pCi/L	N	1/9/2007	2/6/2007	2	0	0	15	16	--	--	43	--	8.6	--
100-H-SW	Cobalt-60	10198-40-0	pCi/L	N	1/9/2007	2/6/2007	2	0	0	14	17	--	--	3,760	--	0.023	--
100-H-SW	Dieldrin	60-57-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0019	--	--	--
100-H-SW	Endosulfan I	959-98-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.056	--	--	--
100-H-SW	Endosulfan II	33213-65-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.056	--	--	--
100-H-SW	Endrin	72-20-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0023	--	--	--
100-H-SW	Europium-152	14683-23-9	pCi/L	N	1/9/2007	2/6/2007	2	0	0	39	49	--	--	25,500	--	222	--
100-H-SW	Europium-154	15585-10-1	pCi/L	N	1/9/2007	2/6/2007	2	0	0	41	53	--	--	21,600	--	70	--
100-H-SW	Europium-155	14391-16-3	pCi/L	N	1/9/2007	2/6/2007	2	0	0	38	48	--	--	26,400	--	5.9	--
100-H-SW	Gamma-BHC (Lindane)	58-89-9	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.080	--	--	--
100-H-SW	Heptachlor	76-44-8	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0038	--	--	--
100-H-SW	Heptachlor epoxide	1024-57-3	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.0038	--	--	--
100-H-SW	Lead	7439-92-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	1.6	1.6	--	--	2.1	--	0.92	--
100-H-SW	Mercury	7439-97-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.10	0.10	--	--	0.012	--	0.0030	--
100-H-SW	Methoxychlor	72-43-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.050	0.062	--	--	0.030	--	--	--
100-H-SW	Pentachlorophenol	87-86-5	µg/L	N	1/9/2007	2/6/2007	2	0	0	25	28	--	--	13	--	--	--
100-H-SW	Phosphate	14265-44-2	µg/L	N	10/30/1995	2/6/2007	4	0	0	250	340	--	--	1,000	--	162	--
100-H-SW	Phosphorus	7723-14-0	µg/L	N	1/9/2007	2/6/2007	2	0	0	13	13	--	--	1,000	--	--	--
100-H-SW	Potassium-40	13966-00-2	pCi/L	N	1/9/2007	2/6/2007	2	0	0	0.039	0.089	--	--	250	--	203	--
100-H-SW	Radium-226	13982-63-3	pCi/L	N	1/9/2007	2/6/2007	2	0	0	-2.68E-01	0.13	--	--	4.1	--	1.1	--
100-H-SW	Radium-228	15262-20-1	pCi/L	N	1/9/2007	2/6/2007	2	0	0	-8.60E-02	-3.10E-02	--	--	3.4	--	--	--
100-H-SW	Selenium	7782-49-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	4.3	4.3	--	--	5.0	--	11	--
100-H-SW	Silver	7440-22-4	µg/L	N	9/28/1995	2/6/2007	5	0	0	0.50	5.5	--	--	2.6	--	5.3	--
100-H-SW	Strontium-90	10098-97-2	pCi/L	N	10/30/1995	2/6/2007	4	0	0	-1.75E-01	0.030	--	--	278	--	0.0010	--
100-H-SW	Technetium-99	14133-76-7	pCi/L	N	10/30/1995	2/6/2007	3	0	0	-2.34E-01	0.067	--	--	667,000	--	0.83	--
100-H-SW	Thorium-230	14269-63-7	pCi/L	N	1/9/2007	2/6/2007	2	0	0	0	0.020	--	--	2,570	--	--	--
100-H-SW	Thorium-232	TH-232	pCi/L	N	1/9/2007	2/6/2007	2	0	0	-2.00E-02	--	--	--	304	--	--	--
100-H-SW	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/L	N	1/9/2007	2/6/2007	2	0	0	100	105	--	--	500	--	--	--
100-H-SW	Toxaphene	8001-35-2	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.062	0.50	--	--	2.00E-04	--	--	--
100-H-SW	Uranium	7440-61-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	14	14	--	--	5.0	--	9.9	--

Table L-26. Summary of Groundwater Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	Acetone	67-64-1	µg/L	N	8/10/2009	6/3/2010	10	1	10	0.34	1.0	0.82	0.82	1,500	--	--	--
100-D Near-Shore Wells	Aluminum	7429-90-5	µg/L	N	10/7/2009	6/3/2010	9	4	44	5.0	10	11	23	87	--	7.1	4
100-D Near-Shore Wells	Arsenic	7440-38-2	µg/L	N	10/30/2007	2/23/2011	25	22	88	0.80	0.80	0.42	3.9	150	--	7.9	--
100-D Near-Shore Wells	Arsenic	7440-38-2	µg/L	Y	11/14/2006	2/23/2011	30	23	77	0.80	2.0	0.40	3.1	150	--	7.9	--
100-D Near-Shore Wells	Barium	7440-39-3	µg/L	N	11/8/2006	2/23/2011	36	36	100	--	--	32	137	364	--	105	6
100-D Near-Shore Wells	Barium	7440-39-3	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	31	149	364	--	105	6
100-D Near-Shore Wells	Chloride	16887-00-6	µg/L	N	2/7/2006	2/23/2011	76	76	100	--	--	1,550	31,600	230,000	--	15,630	50
100-D Near-Shore Wells	Chloroform	67-66-3	µg/L	N	8/10/2009	6/3/2010	10	6	60	1.0	1.0	0.20	1.8	28	--	--	--
100-D Near-Shore Wells	Fluoride	16984-48-8	µg/L	N	2/7/2006	2/23/2011	76	32	42	30	300	33	210	300	--	1,047	--
100-D Near-Shore Wells	Iron	7439-89-6	µg/L	Y	11/8/2006	2/23/2011	37	18	49	9.0	38	11	339	1,000	--	570	--
100-D Near-Shore Wells	Lead	7439-92-1	µg/L	N	10/7/2009	6/3/2010	9	2	22	0.10	0.20	0.37	0.39	2.1	--	0.92	--
100-D Near-Shore Wells	Lead	7439-92-1	µg/L	Y	10/7/2009	6/3/2010	9	1	11	0.10	0.20	0.34	0.34	2.1	--	0.92	--
100-D Near-Shore Wells	Manganese	7439-96-5	µg/L	N	11/8/2006	2/23/2011	36	15	42	3.0	6.0	4.1	64	120	--	39	1
100-D Near-Shore Wells	Manganese	7439-96-5	µg/L	Y	11/8/2006	2/23/2011	37	6	16	1.0	6.0	4.7	23	120	--	39	--
100-D Near-Shore Wells	Phosphorus	7723-14-0	µg/L	N	3/24/2010	6/3/2010	6	4	67	55	55	56	99	1,000	--	--	--
100-D Near-Shore Wells	Phosphorus	7723-14-0	µg/L	Y	3/24/2010	6/3/2010	6	1	17	55	55	71	71	1,000	--	--	--
100-D Near-Shore Wells	Selenium	7782-49-2	µg/L	N	8/10/2009	6/3/2010	10	7	70	0.60	0.60	0.38	2.2	5.0	--	11	--
100-D Near-Shore Wells	Selenium	7782-49-2	µg/L	Y	8/10/2009	6/3/2010	10	9	90	0.60	0.60	0.45	2.6	5.0	--	11	--
100-D Near-Shore Wells	Strontium-90	10098-97-2	pCi/L	N	11/9/2006	2/23/2011	23	1	4.4	-1.20E+01	0.45	0.48	0.48	278	--	0.0010	1
100-D Near-Shore Wells	Technetium-99	14133-76-7	pCi/L	N	10/7/2009	2/23/2011	18	2	11	-1.90E+01	-1.70E+00	12	16	667,000	--	0.83	2
100-D Near-Shore Wells	Tritium	10028-17-8	pCi/L	N	11/8/2006	2/23/2011	31	23	74	-6.40E+01	220	260	16,000	2.65E+08	--	119	23
100-D Near-Shore Wells	Uranium	7440-61-1	µg/L	N	11/14/2006	2/23/2011	34	34	100	--	--	0.86	3.6	5.0	--	9.9	--
100-D Near-Shore Wells	Uranium	7440-61-1	µg/L	Y	10/7/2009	10/8/2009	3	3	100	--	--	1.5	3.6	5.0	--	9.9	--
100-D Near-Shore Wells	Vanadium	7440-62-2	µg/L	N	11/8/2006	2/23/2011	36	16	44	4.1	17	5.8	37	100	--	12	13
100-D Near-Shore Wells	Vanadium	7440-62-2	µg/L	Y	11/8/2006	2/23/2011	37	10	27	4.1	17	5.6	32	100	--	12	6

Table L-27. Summary of Aquifer Tube Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	Acetone	67-64-1	µg/L	N	7/23/2010	12/14/2010	12	2	17	0.34	0.34	1.1	1.8	1,500	--	--	--
100-D Aquifer Tubes	Aluminum	7429-90-5	µg/L	Y	1/12/2006	1/23/2006	2	1	50	95	95	19	19	87	--	7.1	1
100-D Aquifer Tubes	Arsenic	7440-38-2	µg/L	N	1/3/2006	1/6/2011	40	31	78	0.40	1.8	0.45	2.5	150	--	7.9	--
100-D Aquifer Tubes	Arsenic	7440-38-2	µg/L	Y	1/12/2006	1/6/2011	38	23	61	0.28	0.80	0.44	2.4	150	--	7.9	--
100-D Aquifer Tubes	Barium	7440-39-3	µg/L	N	1/3/2006	2/18/2011	64	64	100	--	--	22	168	364	--	105	2
100-D Aquifer Tubes	Barium	7440-39-3	µg/L	Y	1/12/2006	2/18/2011	62	62	100	--	--	19	177	364	--	105	3
100-D Aquifer Tubes	Chloride	16887-00-6	µg/L	N	1/3/2006	3/18/2011	207	207	100	--	--	590	30,400	230,000	--	15,630	42
100-D Aquifer Tubes	Chloroform	67-66-3	µg/L	N	7/23/2010	12/14/2010	12	9	75	0.10	0.10	0.16	0.32	28	--	--	--
100-D Aquifer Tubes	Europium-152	14683-23-9	pCi/L	N	12/14/2010	12/14/2010	4	1	25	-1.80E+00	19	26	26	25,500	--	222	--
100-D Aquifer Tubes	Fluoride	16984-48-8	µg/L	N	1/3/2006	3/18/2011	207	107	52	19	440	14	252	300	--	1,047	--
100-D Aquifer Tubes	Iron	7439-89-6	µg/L	Y	1/12/2006	2/18/2011	62	21	34	9.0	38	9.7	143	1,000	--	570	--
100-D Aquifer Tubes	Lead	7439-92-1	µg/L	N	7/23/2010	12/14/2010	12	5	42	0.20	0.20	0.21	0.57	2.1	--	0.92	--
100-D Aquifer Tubes	Phosphate	14265-44-2	µg/L	N	1/3/2006	9/15/2008	25	1	4.0	86	2,300	670	670	1,000	--	162	1
100-D Aquifer Tubes	Selenium	7782-49-2	µg/L	N	7/23/2010	12/14/2010	12	8	67	0.60	0.60	0.81	1.8	5.0	--	11	--
100-D Aquifer Tubes	Strontium-90	10098-97-2	pCi/L	N	11/14/2007	3/18/2011	22	7	32	-2.80E+01	1.0	1.3	3.5	278	--	0.0010	7
100-D Aquifer Tubes	Tritium	10028-17-8	pCi/L	N	1/12/2006	2/18/2011	76	76	100	--	--	210	23,000	2.65E+08	--	119	76
100-D Aquifer Tubes	Uranium	7440-61-1	µg/L	N	7/23/2010	12/14/2010	12	12	100	--	--	0.48	1.4	5.0	--	9.9	--
100-D Aquifer Tubes	Vanadium	7440-62-2	µg/L	N	1/3/2006	2/18/2011	64	15	23	7.0	17	2.8	27	100	--	12	4
100-D Aquifer Tubes	Vanadium	7440-62-2	µg/L	Y	1/12/2006	2/18/2011	62	13	21	7.0	17	2.3	24	100	--	12	6
100-D Aquifer Tubes	Zinc	7440-66-6	µg/L	Y	1/12/2006	2/18/2011	62	15	24	0.80	9.0	1.8	47	90	--	22	8

Table L-28. Summary of Pore Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	Aluminum	7429-90-5	µg/L	N	1/29/2006	11/25/2006	7	2	29	31	31	39	41	87	--	7.1	2
100-D-PORE-WATER	Arsenic	7440-38-2	µg/L	N	1/29/2006	11/25/2006	7	1	14	3.1	3.4	3.6	3.6	150	--	7.9	--
100-D-PORE-WATER	Barium	7440-39-3	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	26	34	364	--	105	--
100-D-PORE-WATER	Calculated Total Uranium	calc_tot_U	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	0.15	1.1	5.0	--	9.9	--
100-D-PORE-WATER	Chloride	16887-00-6	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	990	3,600	230,000	--	15,630	--
100-D-PORE-WATER	Chromium	7440-47-3	µg/L	N	1/29/2006	11/25/2006	7	3	43	1.6	1.6	3.4	17	64	--	2.4	3
100-D-PORE-WATER	Iron	7439-89-6	µg/L	N	1/29/2006	11/25/2006	7	1	14	32	32	68	68	1,000	--	570	--
100-D-PORE-WATER	Manganese	7439-96-5	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	1.1	8.3	120	--	39	--
100-D-PORE-WATER	Nickel	7440-02-0	µg/L	N	1/29/2006	11/25/2006	7	2	29	1.3	1.3	1.7	2.6	45	--	1.6	2
100-D-PORE-WATER	Nitrogen in Nitrate	NO3-N	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	122	980	1,600	--	--	--
100-D-PORE-WATER	Phosphorus	7723-14-0	µg/L	N	1/29/2006	11/25/2006	7	3	43	8.3	8.3	9.1	22	1,000	--	--	--
100-D-PORE-WATER	Radium-226	13982-63-3	pCi/L	N	1/29/2006	11/25/2006	7	1	14	-9.20E-02	0.22	0.91	0.91	4.1	--	1.1	--
100-D-PORE-WATER	Selenium	7782-49-2	µg/L	N	1/29/2006	11/25/2006	7	1	14	3.6	4.3	4.9	4.9	5.0	--	11	--
100-D-PORE-WATER	Uranium-233/234	13966-29-5	pCi/L	N	1/29/2006	11/25/2006	7	3	43	0.075	0.16	0.24	0.35	202	--	0.85	--
100-D-PORE-WATER	Uranium-235	15117-96-1	pCi/L	N	1/29/2006	11/25/2006	7	1	14	0	0.027	0.022	0.022	217	--	--	--
100-D-PORE-WATER	Uranium-238	U-238	pCi/L	N	1/29/2006	11/25/2006	7	5	71	0.050	0.079	0.16	0.36	223	--	--	--
100-D-PORE-WATER	Zinc	7440-66-6	µg/L	N	1/29/2006	11/25/2006	7	3	43	0.50	3.1	0.86	6.4	90	--	22	--

Table L-29. Summary of Seep/Spring Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SEEP	Antimony	7440-36-0	µg/L	N	11/4/1996	10/26/2004	15	8	53	2.9	43	0.15	0.23	30	--	55	--
100-D-SEEP	Antimony	7440-36-0	µg/L	Y	10/21/2002	10/26/2004	8	4	50	2.9	30	0.17	0.26	30	--	55	--
100-D-SEEP	Arsenic	7440-38-2	µg/L	N	11/4/1996	10/26/2004	9	8	89	2.6	2.6	0.54	2.3	150	--	7.9	--
100-D-SEEP	Arsenic	7440-38-2	µg/L	Y	10/27/2003	10/26/2004	4	4	100	--	--	0.54	0.89	150	--	7.9	--
100-D-SEEP	Barium	7440-39-3	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	27	292	364	--	105	1
100-D-SEEP	Barium	7440-39-3	µg/L	Y	10/21/2002	10/27/2003	4	4	100	--	--	29	79	364	--	105	--
100-D-SEEP	Cadmium	7440-43-9	µg/L	Y	10/21/2002	10/26/2004	8	4	50	0.30	2.5	0.014	0.062	0.22	--	0.92	--
100-D-SEEP	Calculated Total Uranium	calc_tot_U	µg/L	N	8/23/1993	10/26/2004	10	10	100	--	--	0.37	2.6	5.0	--	9.9	--
100-D-SEEP	Cesium-137	10045-97-3	pCi/L	N	8/23/1993	10/26/2004	19	1	5.3	-8.50E-01	2.1	1.2	1.2	43	--	8.6	--
100-D-SEEP	Chloride	16887-00-6	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	1,000	28,000	230,000	--	15,630	5
100-D-SEEP	Chloroform	67-66-3	µg/L	N	8/22/1994	11/4/1996	4	4	100	--	--	0.68	4.1	28	--	--	--
100-D-SEEP	Cobalt	7440-48-4	µg/L	N	11/4/1996	10/27/2003	7	1	14	1.2	5.0	9.6	9.6	23	--	0.92	1
100-D-SEEP	Cobalt-60	10198-40-0	pCi/L	N	8/23/1993	10/26/2004	19	2	11	-1.86E+00	1.4	0.89	2.7	3,760	--	0.023	2
100-D-SEEP	Copper	7440-50-8	µg/L	Y	10/21/2002	10/26/2004	8	6	75	0.86	0.86	0.44	4.0	10	--	0.81	3
100-D-SEEP	Europium-154	15585-10-1	pCi/L	N	8/23/1993	10/26/2004	19	1	5.3	-7.01E+00	2.4	7.4	7.4	21,600	--	70	--
100-D-SEEP	Iron	7439-89-6	µg/L	Y	10/21/2002	10/27/2003	4	2	50	16	20	16	18	1,000	--	570	--
100-D-SEEP	Lead	7439-92-1	µg/L	Y	10/27/2003	10/26/2004	4	4	100	--	--	0.016	0.20	2.1	--	0.92	--
100-D-SEEP	Manganese	7439-96-5	µg/L	Y	10/21/2002	10/27/2003	4	3	75	0.30	0.30	2.1	8.5	120	--	39	--
100-D-SEEP	Nickel	7440-02-0	µg/L	N	8/22/1994	10/26/2004	16	10	63	2.0	16	0.22	29	45	--	1.6	7
100-D-SEEP	Nickel	7440-02-0	µg/L	Y	10/21/2002	10/26/2004	8	5	63	2.0	16	1.3	5.0	45	--	1.6	4
100-D-SEEP	Potassium-40	13966-00-2	pCi/L	N	8/23/1993	10/26/2004	19	5	26	-7.39E+01	27	6.5	104	250	--	203	--
100-D-SEEP	Selenium	7782-49-2	µg/L	N	11/4/1996	10/26/2004	9	5	56	0.10	3.8	0.34	2.7	5.0	--	11	--
100-D-SEEP	Selenium	7782-49-2	µg/L	Y	10/27/2003	10/26/2004	4	2	50	0.50	0.50	0.22	0.33	5.0	--	11	--
100-D-SEEP	Silver	7440-22-4	µg/L	N	11/4/1996	10/26/2004	15	4	27	0.0017	7.4	0.0070	0.053	2.6	--	5.3	--
100-D-SEEP	Strontium-90	10098-97-2	pCi/L	N	8/23/1993	10/26/2004	18	17	94	0.069	0.069	0.054	9.4	278	--	0.0010	17
100-D-SEEP	Tritium	10028-17-8	pCi/L	N	8/23/1993	10/26/2004	26	18	69	-2.33E+01	116	105	12,500	2.65E+08	--	119	17
100-D-SEEP	Uranium-233/234	13966-29-5	pCi/L	N	8/23/1993	10/26/2004	10	10	100	--	--	0.13	1.0	202	--	0.85	1
100-D-SEEP	Uranium-235	15117-96-1	pCi/L	N	8/23/1993	10/26/2004	10	5	50	-1.09E-03	0.023	0.017	0.032	217	--	--	--
100-D-SEEP	Uranium-238	U-238	pCi/L	N	8/23/1993	10/26/2004	10	10	100	--	--	0.12	0.86	223	--	--	--
100-D-SEEP	Vanadium	7440-62-2	µg/L	N	8/29/1995	10/27/2003	9	6	67	0.90	9.7	2.1	49	100	--	12	2
100-D-SEEP	Vanadium	7440-62-2	µg/L	Y	10/21/2002	10/27/2003	4	3	75	9.7	9.7	4.8	18	100	--	12	1
100-D-SEEP	Zinc	7440-66-6	µg/L	Y	10/21/2002	10/26/2004	8	8	100	--	--	1.2	28	90	--	22	1

Table L-30. Summary of Surface Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	Aluminum	7429-90-5	µg/L	N	1/29/2006	2/6/2006	6	2	33	31	31	33	44	87	--	7.1	2
100-D-SW	Antimony	7440-36-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	4.0	4.0	5.7	5.7	30	--	55	--
100-D-SW	Arsenic	7440-38-2	µg/L	N	1/29/2006	2/6/2006	6	2	33	3.4	3.4	4.1	5.1	150	--	7.9	--
100-D-SW	Barium	7440-39-3	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	25	28	364	--	105	--
100-D-SW	Calculated Total Uranium	calc_tot_U	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	0.52	0.94	5.0	--	9.9	--
100-D-SW	Chloride	16887-00-6	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	1,000	1,200	230,000	--	15,630	--
100-D-SW	Hexavalent Chromium	18540-29-9	µg/L	N	1/29/2006	2/6/2006	6	4	67	3.0	3.0	3.4	6.2	10	--	--	--
100-D-SW	Iron	7439-89-6	µg/L	N	1/29/2006	2/6/2006	6	1	17	32	32	37	37	1,000	--	570	--
100-D-SW	Manganese	7439-96-5	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	1.8	3.4	120	--	39	--
100-D-SW	Nickel	7440-02-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	1.3	1.3	1.3	1.3	45	--	1.6	--
100-D-SW	Nitrogen in Nitrate	NO3-N	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	113	470	1,600	--	--	--
100-D-SW	Phosphorus	7723-14-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	8.3	8.3	9.4	9.4	1,000	--	--	--
100-D-SW	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/L	N	1/29/2006	2/6/2006	6	1	17	101	103	200	200	500	--	--	--
100-D-SW	Tritium	10028-17-8	pCi/L	N	7/25/1997	2/6/2006	8	1	13	-1.50E+02	69	618	618	2.65E+08	--	119	1
100-D-SW	Uranium-233/234	13966-29-5	pCi/L	N	1/29/2006	2/6/2006	6	6	100	--	--	0.17	0.37	202	--	0.85	--
100-D-SW	Uranium-238	U-238	pCi/L	N	1/29/2006	2/6/2006	6	5	83	0.29	0.29	0.17	0.32	223	--	--	--
100-D-SW	Zinc	7440-66-6	µg/L	N	1/29/2006	2/6/2006	6	4	67	1.5	1.7	1.7	7.8	90	--	22	--

Table L-31. Summary of Groundwater Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Aluminum	7429-90-5	µg/L	Y	10/11/2009	2/16/2011	11	3	27	10	10	10	20	87	--	7.1	3
100-H Near-Shore Wells	Arsenic	7440-38-2	µg/L	N	10/11/2009	2/25/2011	21	20	95	0.80	0.80	1.4	5.1	150	--	7.9	--
100-H Near-Shore Wells	Arsenic	7440-38-2	µg/L	Y	10/11/2009	2/16/2011	12	9	75	10	65	1.3	2.5	150	--	7.9	--
100-H Near-Shore Wells	Barium	7440-39-3	µg/L	N	11/8/2006	2/25/2011	70	70	100	--	--	26	150	364	--	105	5
100-H Near-Shore Wells	Barium	7440-39-3	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	30	121	364	--	105	5
100-H Near-Shore Wells	Chloride	16887-00-6	µg/L	N	11/8/2006	2/25/2011	91	91	100	--	--	1,240	36,000	230,000	--	15,630	56
100-H Near-Shore Wells	Chloroform	67-66-3	µg/L	N	10/11/2009	2/25/2011	20	8	40	1.0	1.0	0.55	8.4	28	--	--	--
100-H Near-Shore Wells	Fluoride	16984-48-8	µg/L	N	11/8/2006	2/25/2011	91	60	66	13	88	26	255	300	--	1,047	--
100-H Near-Shore Wells	Iron	7439-89-6	µg/L	N	11/8/2006	1/24/2011	59	28	47	9.0	38	12	733	1,000	--	570	1
100-H Near-Shore Wells	Iron	7439-89-6	µg/L	Y	11/8/2006	2/16/2011	65	15	23	9.0	38	18	298	1,000	--	570	--
100-H Near-Shore Wells	Manganese	7439-96-5	µg/L	Y	11/8/2006	2/16/2011	65	7	11	0.96	6.0	2.6	16	120	--	39	--
100-H Near-Shore Wells	Nickel	7440-02-0	µg/L	N	11/8/2006	2/25/2011	70	18	26	0.40	6.0	1.4	28	45	--	1.6	17
100-H Near-Shore Wells	Nickel	7440-02-0	µg/L	Y	11/8/2006	2/16/2011	65	11	17	4.0	7.5	0.63	25	45	--	1.6	10
100-H Near-Shore Wells	Phosphorus	7723-14-0	µg/L	N	3/21/2010	5/18/2010	6	5	83	55	55	57	101	1,000	--	--	--
100-H Near-Shore Wells	Phosphorus	7723-14-0	µg/L	Y	3/21/2010	2/16/2011	8	6	75	55	55	21	146	1,000	--	--	--
100-H Near-Shore Wells	Selenium	7782-49-2	µg/L	N	10/11/2009	2/25/2011	21	14	67	0.60	0.60	0.61	3.0	5.0	--	11	--
100-H Near-Shore Wells	Selenium	7782-49-2	µg/L	Y	10/11/2009	2/16/2011	12	8	67	0.60	45	0.90	2.1	5.0	--	11	--
100-H Near-Shore Wells	Strontium-90	10098-97-2	pCi/L	N	5/23/2006	2/25/2011	93	46	49	-9.80E+00	1.6	1.4	110	278	--	0.0010	46
100-H Near-Shore Wells	Technetium-99	14133-76-7	pCi/L	N	5/4/2006	2/25/2011	106	28	26	-1.10E+01	8.2	6.5	100	667,000	--	0.83	28
100-H Near-Shore Wells	Tritium	10028-17-8	pCi/L	N	5/23/2006	2/25/2011	105	91	87	-1.10E+02	180	440	10,000	2.65E+08	--	119	91
100-H Near-Shore Wells	Uranium	7440-61-1	µg/L	Y	10/11/2009	1/13/2010	9	9	100	--	--	0.53	3.1	5.0	--	9.9	--
100-H Near-Shore Wells	Vanadium	7440-62-2	µg/L	N	11/8/2006	2/25/2011	70	29	41	7.0	17	4.0	58	100	--	12	20
100-H Near-Shore Wells	Vanadium	7440-62-2	µg/L	Y	11/8/2006	2/16/2011	65	26	40	5.9	17	7.1	51	100	--	12	19

Table L-32. Summary of Aquifer Tube Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Arsenic	7440-38-2	µg/L	N	8/10/2010	12/16/2010	6	3	50	0.40	0.80	1.4	1.8	150	--	7.9	--
100-H Aquifer Tubes	Arsenic	7440-38-2	µg/L	Y	8/10/2010	12/16/2010	6	3	50	0.80	0.80	1.5	2.2	150	--	7.9	--
100-H Aquifer Tubes	Barium	7440-39-3	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	14	56	364	--	105	--
100-H Aquifer Tubes	Barium	7440-39-3	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	13	28	364	--	105	--
100-H Aquifer Tubes	Chloride	16887-00-6	µg/L	N	1/30/2007	2/4/2011	68	68	100	--	--	1,000	33,800	230,000	--	15,630	25
100-H Aquifer Tubes	Chloroform	67-66-3	µg/L	N	8/10/2010	12/16/2010	5	3	60	0.10	0.10	0.70	1.8	28	--	--	--
100-H Aquifer Tubes	Chromium	7440-47-3	µg/L	N	3/3/2009	3/3/2011	10	4	40	13	14	20	37	64	--	2.4	4
100-H Aquifer Tubes	Chromium	7440-47-3	µg/L	Y	3/3/2009	3/3/2011	10	5	50	13	14	14	36	64	--	2.4	5
100-H Aquifer Tubes	Fluoride	16984-48-8	µg/L	N	1/30/2007	2/4/2011	68	50	74	29	88	14	182	300	--	1,047	--
100-H Aquifer Tubes	Iron	7439-89-6	µg/L	N	3/3/2009	3/3/2011	10	7	70	25	38	38	568	1,000	--	570	--
100-H Aquifer Tubes	Lead	7439-92-1	µg/L	N	8/10/2010	12/16/2010	6	1	17	0.10	0.20	0.77	0.77	2.1	--	0.92	--
100-H Aquifer Tubes	Manganese	7439-96-5	µg/L	Y	3/3/2009	3/3/2011	10	2	20	4.0	6.0	4.2	6.0	120	--	39	--
100-H Aquifer Tubes	Nitrite	14797-65-0	µg/L	N	1/30/2007	2/4/2011	68	1	1.5	13	118	49	49	246	--	94	--
100-H Aquifer Tubes	Phosphate	14265-44-2	µg/L	N	1/30/2007	8/26/2008	15	2	13	86	460	110	123	1,000	--	162	--
100-H Aquifer Tubes	Selenium	7782-49-2	µg/L	N	8/10/2010	12/16/2010	6	1	17	0.60	0.60	0.50	0.50	5.0	--	11	--
100-H Aquifer Tubes	Strontium-90	10098-97-2	pCi/L	N	1/31/2007	4/28/2011	33	15	45	-9.50E+00	0.85	0.94	18	278	--	0.0010	15
100-H Aquifer Tubes	Technetium-99	14133-76-7	pCi/L	N	2/6/2007	12/16/2010	19	2	11	-1.60E+01	5.0	5.4	6.9	667,000	--	0.83	2
100-H Aquifer Tubes	Trichloroethene	79-01-6	µg/L	N	8/10/2010	12/16/2010	5	1	20	0.25	0.25	0.42	0.42	47	--	--	--
100-H Aquifer Tubes	Uranium	7440-61-1	µg/L	N	2/6/2007	12/16/2010	21	21	100	--	--	0.18	2.3	5.0	--	9.9	--
100-H Aquifer Tubes	Zinc	7440-66-6	µg/L	N	3/3/2009	3/3/2011	10	2	20	4.0	6.0	6.0	9.4	90	--	22	--

Table L-33. Summary of Pore Water Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-PORE-WATER	Aluminum	7429-90-5	µg/L	N	1/9/2007	2/4/2007	2	1	50	23	23	25	25	87	--	7.1	1
100-H-PORE-WATER	Arsenic	7440-38-2	µg/L	N	1/9/2007	2/4/2007	2	1	50	3.1	3.1	3.2	3.2	150	--	7.9	--
100-H-PORE-WATER	Barium	7440-39-3	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	29	33	364	--	105	--
100-H-PORE-WATER	Calculated Total Uranium	calc_tot_U	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	0.31	0.99	5.0	--	9.9	--
100-H-PORE-WATER	Chloride	16887-00-6	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	1,300	2,200	230,000	--	15,630	--
100-H-PORE-WATER	Copper	7440-50-8	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	0.94	1.4	10	--	0.81	2
100-H-PORE-WATER	Hexavalent Chromium	18540-29-9	µg/L	N	1/9/2007	2/4/2007	2	1	50	3.0	3.0	4.6	4.6	10	--	--	--
100-H-PORE-WATER	Iron	7439-89-6	µg/L	N	1/9/2007	2/4/2007	2	1	50	24	24	27	27	1,000	--	570	--
100-H-PORE-WATER	Manganese	7439-96-5	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2.0	2.2	120	--	39	--
100-H-PORE-WATER	Nitrogen in Nitrate	NO3-N	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	147	230	1,600	--	--	--
100-H-PORE-WATER	Uranium-233/234	13966-29-5	pCi/L	N	1/9/2007	2/4/2007	2	1	50	0.24	0.24	0.22	0.22	202	--	0.85	--
100-H-PORE-WATER	Uranium-238	U-238	pCi/L	N	1/9/2007	2/4/2007	2	1	50	0.10	0.10	0.33	0.33	223	--	--	--
100-H-PORE-WATER	Zinc	7440-66-6	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2.2	2.3	90	--	22	--

Table L-34. Summary of Seep/Spring Analytes That Do Not Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SEEP	Antimony	7440-36-0	µg/L	N	11/1/2000	10/26/2004	13	7	54	30	39	0.18	0.38	30	--	55	--
100-H-SEEP	Antimony	7440-36-0	µg/L	Y	10/27/2002	10/26/2004	10	4	40	30	39	0.18	0.27	30	--	55	--
100-H-SEEP	Arsenic	7440-38-2	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	0.58	8.5	150	--	7.9	1
100-H-SEEP	Arsenic	7440-38-2	µg/L	Y	10/27/2003	10/26/2004	4	4	100	--	--	0.54	2.9	150	--	7.9	--
100-H-SEEP	Barium	7440-39-3	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	22	53	364	--	105	--
100-H-SEEP	Barium	7440-39-3	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	21	28	364	--	105	--
100-H-SEEP	Cadmium	7440-43-9	µg/L	Y	10/27/2002	10/26/2004	10	4	40	2.5	3.3	0.011	0.041	0.22	--	0.92	--
100-H-SEEP	Cesium-134	13967-70-9	pCi/L	N	9/20/1993	10/26/2004	20	1	5.0	-2.37E+00	1.4	1.2	1.2	21	--	1.1	1
100-H-SEEP	Cesium-137	10045-97-3	pCi/L	N	9/20/1993	10/26/2004	20	1	5.0	-1.00E+00	3.0	1.9	1.9	43	--	8.6	--
100-H-SEEP	Chloride	16887-00-6	µg/L	N	8/25/1994	10/26/2004	17	17	100	--	--	920	15,600	230,000	--	15,630	--
100-H-SEEP	Chloroform	67-66-3	µg/L	N	8/25/1994	11/1/2000	4	3	75	0.23	0.23	3.7	14	28	--	--	--
100-H-SEEP	Chromium	7440-47-3	µg/L	N	8/25/1994	10/26/2004	16	14	88	3.4	4.4	3.6	63	64	--	2.4	14
100-H-SEEP	Chromium	7440-47-3	µg/L	Y	10/27/2002	10/26/2004	10	7	70	3.4	4.4	4.6	33	64	--	2.4	7
100-H-SEEP	Copper	7440-50-8	µg/L	Y	10/27/2002	10/26/2004	10	4	40	0.86	2.9	0.47	0.52	10	--	0.81	--
100-H-SEEP	Europium-155	14391-16-3	pCi/L	N	9/20/1993	10/26/2004	20	1	5.0	-3.47E+00	7.5	5.9	5.9	26,400	--	5.9	--
100-H-SEEP	Iron	7439-89-6	µg/L	Y	10/27/2002	11/20/2003	6	1	17	16	55	16	16	1,000	--	570	--
100-H-SEEP	Lead	7439-92-1	µg/L	Y	10/27/2003	10/26/2004	4	3	75	0.011	0.011	0.028	0.28	2.1	--	0.92	--
100-H-SEEP	Manganese	7439-96-5	µg/L	N	8/25/1994	11/20/2003	9	8	89	1.9	1.9	2.8	75	120	--	39	1
100-H-SEEP	Nickel	7440-02-0	µg/L	N	11/1/2000	10/26/2004	13	7	54	14	16	0.18	11	45	--	1.6	1
100-H-SEEP	Nickel	7440-02-0	µg/L	Y	10/27/2002	10/26/2004	10	4	40	14	16	0.76	1.3	45	--	1.6	--
100-H-SEEP	Potassium-40	13966-00-2	pCi/L	N	9/20/1993	10/26/2004	23	8	35	-4.94E+01	33	20	222	250	--	203	1
100-H-SEEP	Selenium	7782-49-2	µg/L	N	11/1/2000	10/26/2004	7	3	43	0.39	0.50	0.15	0.74	5.0	--	11	--
100-H-SEEP	Selenium	7782-49-2	µg/L	Y	10/27/2003	10/26/2004	4	3	75	0.10	0.10	0.51	1.1	5.0	--	11	--
100-H-SEEP	Silver	7440-22-4	µg/L	Y	10/27/2002	10/26/2004	10	2	20	0.0017	3.1	0.010	1.8	2.6	--	5.3	--
100-H-SEEP	Strontium-90	10098-97-2	pCi/L	N	9/20/1993	10/26/2004	23	18	78	-7.00E-01	1.3	0.022	25	278	--	0.0010	18
100-H-SEEP	Technetium-99	14133-76-7	pCi/L	N	9/20/1993	10/26/2004	26	13	50	-2.00E+00	0.70	0.30	136	667,000	--	0.83	11
100-H-SEEP	Tritium	10028-17-8	pCi/L	N	9/20/1993	10/26/2004	32	27	84	28	284	165	5,460	2.65E+08	--	119	27
100-H-SEEP	Uranium-233/234	13966-29-5	pCi/L	N	9/20/1993	10/26/2004	26	26	100	--	--	0.10	5.0	202	--	0.85	13
100-H-SEEP	Uranium-235	15117-96-1	pCi/L	N	9/20/1993	10/26/2004	24	17	71	-3.34E-03	0.024	0.014	0.36	217	--	--	--
100-H-SEEP	Uranium-238	U-238	pCi/L	N	9/20/1993	10/26/2004	26	26	100	--	--	0.14	4.0	223	--	--	--
100-H-SEEP	Vanadium	7440-62-2	µg/L	N	9/5/1995	11/20/2003	7	2	29	9.7	9.7	3.6	6.0	100	--	12	--
100-H-SEEP	Zinc	7440-66-6	µg/L	Y	10/27/2002	10/26/2004	10	6	60	2.2	2.7	1.5	4.6	90	--	22	--

Table L-35. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SW	Arsenic	7440-38-2	µg/L	N	1/9/2007	2/6/2007	2	1	50	3.1	3.1	3.4	3.4	150	--	7.9	--
100-H-SW	Calculated Total Uranium	calc_tot_U	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	0.49	3.6	5.0	--	9.9	--
100-H-SW	Chloride	16887-00-6	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	890	4,100	230,000	--	15,630	--
100-H-SW	Fluoride	16984-48-8	µg/L	N	10/30/1995	2/6/2007	4	2	50	250	250	98	140	300	--	1,047	--
100-H-SW	Hexavalent Chromium	18540-29-9	µg/L	N	1/9/2007	2/6/2007	2	1	50	3.0	3.0	3.6	3.6	10	--	--	--
100-H-SW	Nitrogen in Nitrate	NO3-N	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	102	1,265	1,600	--	--	--
100-H-SW	Tritium	10028-17-8	pCi/L	N	10/30/1995	2/6/2007	5	1	20	26	73	1,330	1,330	2.65E+08	--	119	1
100-H-SW	Uranium-233/234	13966-29-5	pCi/L	N	10/30/1995	2/6/2007	4	3	75	0.19	0.19	0.22	1.4	202	--	0.85	1
100-H-SW	Uranium-235	15117-96-1	pCi/L	N	10/30/1995	2/6/2007	4	1	25	0	0.037	0.059	0.059	217	--	--	--
100-H-SW	Uranium-238	U-238	pCi/L	N	10/30/1995	2/6/2007	4	3	75	0.16	0.16	0.26	1.2	223	--	--	--

Table L-36. Summary of Groundwater Analytes That Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	Antimony	7440-36-0	µg/L	N	11/8/2006	2/23/2011	36	4	11	0.30	72	42	52	30	4	55	--
100-D Near-Shore Wells	Antimony	7440-36-0	µg/L	Y	11/8/2006	2/23/2011	37	3	8.1	0.30	72	4.2	55	30	2	55	--
100-D Near-Shore Wells	Cadmium	7440-43-9	µg/L	Y	11/8/2006	2/23/2011	37	1	2.7	0.10	4.0	0.31	0.31	0.22	1	0.92	--
100-D Near-Shore Wells	Chromium	7440-47-3	µg/L	N	11/8/2006	2/23/2011	36	35	97	13	13	19	5,930	64	19	2.4	35
100-D Near-Shore Wells	Chromium	7440-47-3	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	11	5,930	64	20	2.4	37
100-D Near-Shore Wells	Cobalt	7440-48-4	µg/L	N	11/8/2006	2/23/2011	36	14	39	0.10	7.0	2.1	30	23	4	0.92	14
100-D Near-Shore Wells	Cobalt	7440-48-4	µg/L	Y	11/8/2006	2/23/2011	37	14	38	0.10	7.0	2.2	31	23	4	0.92	14
100-D Near-Shore Wells	Copper	7440-50-8	µg/L	N	11/8/2006	2/23/2011	36	12	33	0.20	7.0	0.23	17	10	6	0.81	8
100-D Near-Shore Wells	Copper	7440-50-8	µg/L	Y	11/8/2006	2/23/2011	37	8	22	0.20	7.0	0.22	18	10	4	0.81	5
100-D Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	N	4/26/2006	5/11/2011	131	129	98	0	2.0	3.2	2,950	10	115	--	--
100-D Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	Y	1/16/2006	5/11/2011	103	99	96	2.0	5.0	3.0	2,960	10	84	--	--
100-D Near-Shore Wells	Iron	7439-89-6	µg/L	N	11/8/2006	2/23/2011	36	31	86	18	38	29	1,560	1,000	2	570	2
100-D Near-Shore Wells	Nickel	7440-02-0	µg/L	N	11/8/2006	2/23/2011	36	21	58	4.0	6.0	4.0	69	45	3	1.6	21
100-D Near-Shore Wells	Nickel	7440-02-0	µg/L	Y	11/8/2006	2/23/2011	37	17	46	4.0	7.5	4.0	68	45	2	1.6	17
100-D Near-Shore Wells	Nitrate	14797-55-8	µg/L	N	2/7/2006	2/23/2011	76	75	99	1,370	1,370	3,000	52,200	7,100	73	26,871	29
100-D Near-Shore Wells	Nitrite	14797-65-0	µg/L	N	2/7/2006	2/23/2011	76	5	6.6	9.9	591	31	2,040	246	4	94	4
100-D Near-Shore Wells	Silver	7440-22-4	µg/L	N	11/8/2006	2/23/2011	36	4	11	0.10	11	23	29	2.6	4	5.3	4
100-D Near-Shore Wells	Silver	7440-22-4	µg/L	Y	11/8/2006	2/23/2011	37	5	14	0.10	11	0.29	31	2.6	4	5.3	4
100-D Near-Shore Wells	Zinc	7440-66-6	µg/L	N	11/8/2006	2/23/2011	36	28	78	4.0	9.0	6.0	342	90	16	22	23
100-D Near-Shore Wells	Zinc	7440-66-6	µg/L	Y	11/8/2006	2/23/2011	37	29	78	4.0	9.0	5.0	329	90	12	22	24

Table L-37. Summary of Aquifer Tube Analytes That Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Aquifer Tubes	Aluminum	7429-90-5	µg/L	N	1/23/2006	1/23/2006	1	1	100	--	--	120	120	87	1	7.1	1
100-D Aquifer Tubes	Antimony	7440-36-0	µg/L	N	1/3/2006	2/18/2011	64	7	11	0.30	56	34	66	30	7	55	1
100-D Aquifer Tubes	Antimony	7440-36-0	µg/L	Y	1/12/2006	2/18/2011	62	3	4.8	0.30	56	43	52	30	3	55	--
100-D Aquifer Tubes	Cadmium	7440-43-9	µg/L	N	1/3/2006	2/18/2011	64	1	1.6	0.10	4.0	0.43	0.43	0.22	1	0.92	--
100-D Aquifer Tubes	Cesium-134	13967-70-9	pCi/L	N	12/14/2010	12/14/2010	4	1	25	-1.00E+01	2.2	22	22	21	1	1.1	1
100-D Aquifer Tubes	Chromium	7440-47-3	µg/L	N	1/3/2006	2/18/2011	64	41	64	13	14	5.5	362	64	18	2.4	41
100-D Aquifer Tubes	Chromium	7440-47-3	µg/L	Y	1/12/2006	2/18/2011	62	35	56	4.0	14	15	364	64	17	2.4	35
100-D Aquifer Tubes	Cobalt	7440-48-4	µg/L	N	1/3/2006	2/18/2011	64	17	27	1.7	5.0	0.82	29	23	1	0.92	16
100-D Aquifer Tubes	Cobalt	7440-48-4	µg/L	Y	1/12/2006	2/18/2011	62	18	29	2.6	5.0	0.30	32	23	1	0.92	17
100-D Aquifer Tubes	Copper	7440-50-8	µg/L	N	1/23/2006	2/18/2011	59	24	41	4.0	6.0	4.3	124	10	17	0.81	24
100-D Aquifer Tubes	Copper	7440-50-8	µg/L	Y	1/12/2006	2/18/2011	60	16	27	2.8	6.0	4.1	62	10	6	0.81	16
100-D Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	N	1/3/2006	4/26/2011	347	277	80	2.0	2.0	2.0	422	10	187	--	--
100-D Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	Y	1/12/2006	4/26/2011	308	242	79	-3.00E-01	5.0	2.0	380	10	161	--	--
100-D Aquifer Tubes	Iron	7439-89-6	µg/L	N	1/3/2006	2/18/2011	64	46	72	18	38	21	1,190	1,000	1	570	2
100-D Aquifer Tubes	Manganese	7439-96-5	µg/L	N	1/3/2006	2/18/2011	64	37	58	0.10	6.0	3.6	171	120	1	39	10
100-D Aquifer Tubes	Manganese	7439-96-5	µg/L	Y	1/12/2006	2/18/2011	62	22	35	0.10	6.0	0.54	149	120	1	39	6
100-D Aquifer Tubes	Nickel	7440-02-0	µg/L	N	1/3/2006	2/18/2011	64	29	45	4.0	6.0	1.2	195	45	10	1.6	28
100-D Aquifer Tubes	Nickel	7440-02-0	µg/L	Y	1/12/2006	2/18/2011	62	24	39	4.0	7.5	0.32	188	45	8	1.6	23
100-D Aquifer Tubes	Nitrate	14797-55-8	µg/L	N	1/3/2006	3/18/2011	207	200	97	84	274	53	41,600	7,100	110	26,871	12
100-D Aquifer Tubes	Nitrite	14797-65-0	µg/L	N	1/3/2006	3/18/2011	207	3	1.5	13	591	39	460	246	1	94	1
100-D Aquifer Tubes	Silver	7440-22-4	µg/L	N	1/3/2006	2/18/2011	64	2	3.1	0.10	7.0	8.0	22	2.6	2	5.3	2
100-D Aquifer Tubes	Silver	7440-22-4	µg/L	Y	1/12/2006	2/18/2011	62	1	1.6	0.10	7.0	22	22	2.6	1	5.3	1
100-D Aquifer Tubes	Zinc	7440-66-6	µg/L	N	1/3/2006	2/18/2011	64	25	39	0.80	9.0	6.0	111	90	2	22	16

Table L-38. Summary of Pore Water Analytes That Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	Hexavalent Chromium	18540-29-9	µg/L	N	1/29/2006	12/16/2006	8	5	63	3.0	3.0	3.9	21	10	2	--	--

Table L-39. Summary of Seep/Spring Analytes That Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SEEP	Aluminum	7429-90-5	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	29	21,100	87	8	7.1	11
100-D-SEEP	Cadmium	7440-43-9	µg/L	N	11/4/1996	10/26/2004	15	9	60	0.31	2.8	0.017	0.68	0.22	3	0.92	--
100-D-SEEP	Chromium	7440-47-3	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	10	400	64	7	2.4	18
100-D-SEEP	Chromium	7440-47-3	µg/L	Y	10/21/2002	10/26/2004	8	8	100	--	--	11	156	64	1	2.4	8
100-D-SEEP	Copper	7440-50-8	µg/L	N	8/22/1994	10/26/2004	16	10	63	0.86	8.7	0.47	37	10	1	0.81	6
100-D-SEEP	Fluoride	16984-48-8	µg/L	N	8/22/1994	10/26/2004	18	16	89	10	250	38	500	300	4	1,047	--
100-D-SEEP	Hexavalent Chromium	18540-29-9	µg/L	N	11/4/1996	11/4/1996	1	1	100	--	--	70	70	10	1	--	--
100-D-SEEP	Iron	7439-89-6	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	46	20,400	1,000	1	570	2
100-D-SEEP	Lead	7439-92-1	µg/L	N	11/4/1996	10/26/2004	9	9	100	--	--	0.27	8.0	2.1	2	0.92	6
100-D-SEEP	Manganese	7439-96-5	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	0.61	935	120	1	39	2
100-D-SEEP	Mercury	7439-97-6	µg/L	N	10/17/2000	10/26/2004	8	8	100	--	--	4.69E-04	0.021	0.012	2	0.0030	4
100-D-SEEP	Nitrogen in Nitrate	NO3-N	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	226	295,000	1,600	10	--	--
100-D-SEEP	Zinc	7440-66-6	µg/L	N	8/22/1994	10/26/2004	19	19	100	--	--	1.5	415	90	1	22	4

Table L-40. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SW	Selenium	7782-49-2	µg/L	N	1/29/2006	2/6/2006	6	1	17	3.6	3.6	5.9	5.9	5.0	1	11	--

Table L-41. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D Near-Shore Wells	Aluminum	7429-90-5	µg/L	N	10/7/2009	6/3/2010	9	4	44	5.0	10	11	23	17	17	B22505	87	--	7.1	4
100-D Near-Shore Wells	Aluminum	7429-90-5	µg/L	Y	10/7/2009	6/3/2010	9	0	0	5.0	10	--	--	--	--	--	87	--	7.1	--
100-D Aquifer Tubes	Aluminum	7429-90-5	µg/L	N	1/23/2006	1/23/2006	1	1	100	--	--	120	120	120	120	B1F7L0	87	1	7.1	1
100-D Aquifer Tubes	Aluminum	7429-90-5	µg/L	Y	1/12/2006	1/23/2006	2	1	50	95	95	19	19	19	19	B1F7F0	87	--	7.1	1
100-D-PORE-WATER	Aluminum	7429-90-5	µg/L	N	1/29/2006	11/25/2006	7	2	29	31	31	39	41	40	40	J13HH0	87	--	7.1	2
100-D-SEEP	Aluminum	7429-90-5	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	29	21,100	2,088	179	B15HW1	87	8	7.1	11
100-D-SEEP	Aluminum	7429-90-5	µg/L	Y	10/21/2002	10/27/2003	4	0	0	12	17	--	--	--	--	--	87	--	7.1	--
100-D-SW	Aluminum	7429-90-5	µg/L	N	1/29/2006	2/6/2006	6	2	33	31	31	33	44	38	38	J112F8	87	--	7.1	2
100-D Near-Shore Wells	Antimony	7440-36-0	µg/L	N	11/8/2006	2/23/2011	36	4	11	0.30	72	42	52	47	46	B1R3K1	30	4	55	--
100-D Near-Shore Wells	Antimony	7440-36-0	µg/L	Y	11/8/2006	2/23/2011	37	3	8.1	0.30	72	4.2	55	36	50	B1R3J7	30	2	55	--
100-D Aquifer Tubes	Antimony	7440-36-0	µg/L	N	1/3/2006	2/18/2011	64	7	11	0.30	56	34	66	42	38	B1PPC3	30	7	55	1
100-D Aquifer Tubes	Antimony	7440-36-0	µg/L	Y	1/12/2006	2/18/2011	62	3	4.8	0.30	56	43	52	48	48	B1R8R8	30	3	55	--
100-D-PORE-WATER	Antimony	7440-36-0	µg/L	N	1/29/2006	11/25/2006	7	0	0	2.5	4.0	--	--	--	--	--	30	--	55	--
100-D-SEEP	Antimony	7440-36-0	µg/L	N	11/4/1996	10/26/2004	15	8	53	2.9	43	0.15	0.23	0.18	0.18	B15C86	30	--	55	--
100-D-SEEP	Antimony	7440-36-0	µg/L	Y	10/21/2002	10/26/2004	8	4	50	2.9	30	0.17	0.26	0.21	0.20	B1BFX1	30	--	55	--
100-D-SW	Antimony	7440-36-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	4.0	4.0	5.7	5.7	5.7	5.7	J112X9	30	--	55	--
100-D Near-Shore Wells	Cadmium	7440-43-9	µg/L	N	11/8/2006	2/23/2011	36	0	0	0.10	4.0	--	--	--	--	--	0.22	--	0.92	--
100-D Near-Shore Wells	Cadmium	7440-43-9	µg/L	Y	11/8/2006	2/23/2011	37	1	2.7	0.10	4.0	0.31	0.31	0.31	0.31	B257F8	0.22	1	0.92	--
100-D Aquifer Tubes	Cadmium	7440-43-9	µg/L	N	1/3/2006	2/18/2011	64	1	1.6	0.10	4.0	0.43	0.43	0.43	0.43	B26N48	0.22	1	0.92	--
100-D Aquifer Tubes	Cadmium	7440-43-9	µg/L	Y	1/12/2006	2/18/2011	62	0	0	0.10	4.0	--	--	--	--	--	0.22	--	0.92	--
100-D-PORE-WATER	Cadmium	7440-43-9	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.30	0.70	--	--	--	--	--	0.22	--	0.92	--
100-D-SEEP	Cadmium	7440-43-9	µg/L	N	11/4/1996	10/26/2004	15	9	60	0.31	2.8	0.017	0.68	0.22	0.086	B15HW4	0.22	3	0.92	--
100-D-SEEP	Cadmium	7440-43-9	µg/L	Y	10/21/2002	10/26/2004	8	4	50	0.30	2.5	0.014	0.062	0.035	0.033	B17J94	0.22	--	0.92	--
100-D-SW	Cadmium	7440-43-9	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.70	0.70	--	--	--	--	--	0.22	--	0.92	--
100-D Near-Shore Wells	Cesium-134	13967-70-9	pCi/L	N	10/7/2009	2/23/2011	11	0	0	-2.81E+00	27	--	--	--	--	--	21	--	1.1	--
100-D Aquifer Tubes	Cesium-134	13967-70-9	pCi/L	N	12/14/2010	12/14/2010	4	1	25	-1.00E+01	2.2	22	22	22	22	B27V23	21	1	1.1	1
100-D-PORE-WATER	Cesium-134	13967-70-9	pCi/L	N	1/29/2006	11/25/2006	7	0	0	8.7	28	--	--	--	--	--	21	--	1.1	--
100-D-SEEP	Cesium-134	13967-70-9	pCi/L	N	8/23/1993	10/26/2004	19	0	0	-1.73E+00	3.0	--	--	--	--	--	21	--	1.1	--
100-D-SW	Cesium-134	13967-70-9	pCi/L	N	1/29/2006	2/6/2006	6	0	0	13	20	--	--	--	--	--	21	--	1.1	--
100-D Near-Shore Wells	Chromium	7440-47-3	µg/L	N	11/8/2006	2/23/2011	36	35	97	13	13	19	5,930	303	73	B29211	64	19	2.4	35
100-D Near-Shore Wells	Chromium	7440-47-3	µg/L	Y	11/8/2006	2/23/2011	37	37	100	--	--	11	5,930	303	74	B29210	64	20	2.4	37
100-D Aquifer Tubes	Chromium	7440-47-3	µg/L	N	1/3/2006	2/18/2011	64	41	64	13	14	5.5	362	78	59	B1PPF4	64	18	2.4	41
100-D Aquifer Tubes	Chromium	7440-47-3	µg/L	Y	1/12/2006	2/18/2011	62	35	56	4.0	14	15	364	86	55	B1PPF3	64	17	2.4	35
100-D-PORE-WATER	Chromium	7440-47-3	µg/L	N	1/29/2006	11/25/2006	7	3	43	1.6	1.6	3.4	17	8.0	4.1	J13HH0	64	--	2.4	3
100-D-SEEP	Chromium	7440-47-3	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	10	400	112	56	B0CSF6	64	7	2.4	18
100-D-SEEP	Chromium	7440-47-3	µg/L	Y	10/21/2002	10/26/2004	8	8	100	--	--	11	156	49	39	B15HW5	64	1	2.4	8
100-D-SW	Chromium	7440-47-3	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.6	1.6	--	--	--	--	--	64	--	2.4	--
100-D Near-Shore Wells	Cobalt	7440-48-4	µg/L	N	11/8/2006	2/23/2011	36	14	39	0.10	7.0	2.1	30	11	6.1	B1R3N7	23	4	0.92	14
100-D Near-Shore Wells	Cobalt	7440-48-4	µg/L	Y	11/8/2006	2/23/2011	37	14	38	0.10	7.0	2.2	31	11	4.9	B1R3N6	23	4	0.92	14
100-D Aquifer Tubes	Cobalt	7440-48-4	µg/L	N	1/3/2006	2/18/2011	64	17	27	1.7	5.0	0.82	29	7.8	4.0	B24L67	23	1	0.92	16
100-D Aquifer Tubes	Cobalt	7440-48-4	µg/L	Y	1/12/2006	2/18/2011	62	18	29	2.6	5.0	0.30	32	8.6	5.8	B24L66	23	1	0.92	17
100-D-PORE-WATER	Cobalt	7440-48-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.50	1.2	--	--	--	--	--	23	--	0.92	--
100-D-SEEP	Cobalt	7440-48-4	µg/L	N	11/4/1996	10/27/2003	7	1	14	1.2	5.0	9.6	9.6	9.6	9.6	B15HW1	23	--	0.92	1
100-D-SEEP	Cobalt	7440-48-4	µg/L	Y	10/21/2002	10/27/2003	4	0	0	1.2	5.0	--	--	--	--	--	23	--	0.92	--
100-D-SW	Cobalt	7440-48-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.2	1.2	--	--	--	--	--	23	--	0.92	--
100-D Near-Shore Wells	Copper	7440-50-8	µg/L	N	11/8/2006	2/23/2011	36	12	33	0.20	7.0	0.23	17	7.7	9.3	B1R3J8	10	6	0.81	8
100-D Near-Shore Wells	Copper	7440-50-8	µg/L	Y	11/8/2006	2/23/2011	37	8	22	0.20	7.0	0.22	18	7.8	6.6	B1R3J5	10	4	0.81	5
100-D Aquifer Tubes	Copper	7440-50-8	µg/L	N	1/23/2006	2/18/2011	59	24	41	4.0	6.0	4.3	124	35	17	B24LB6	10	17	0.81	24
100-D Aquifer Tubes	Copper	7440-50-8	µg/L	Y	1/12/2006	2/18/2011	60	16	27	2.8	6.0	4.1	62	14	7.0	B24LB5	10	6	0.81	16
100-D-PORE-WATER	Copper	7440-50-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.70	2.9	--	--	--	--	--	10	--	0.81	--
100-D-SEEP	Copper	7440-50-8	µg/L	N	8/22/1994	10/26/2004	16	10	63	0.86	8.7	0.47	37	6.3	2.0	B15HW1	10	1	0.81	6
100-D-SEEP	Copper	7440-50-8	µg/L	Y	10/21/2002	10/26/2004	8	6	75	0.86	0.86	0.44	4.0	1.3	0.75	B17JP0	10	--	0.81	3
100-D-SW	Copper	7440-50-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.2	2.9	--	--	--	--	--	10	--	0.81	--
100-D Near-Shore Wells	Fluoride	16984-48-8	µg/L	N	2/7/2006	2/23/2011	76	32	42	30	300	33	210	106	106	B1YJC9	300	--	1,047	--
100-D Aquifer Tubes	Fluoride	16984-48-8	µg/L	N	1/3/2006	3/18/2011	207	107	52	19	440	14	252	90	75	B28FV9	300	--	1,047	--
100-D-PORE-WATER	Fluoride	16984-48-8	µg/L	N	1/29/2006	11/25/2006	7	0	0	250	250	--	--	--	--	--	300	--	1,047	--
100-D-SEEP	Fluoride	16984-48-8	µg/L	N	8/22/1994	10/26/2004	18	16	89	10	250	38	500	193	127	B0CSF5	300	4	1,047	--
100-D-SW	Fluoride	16984-48-8	µg/L	N	1/29/2006	2/6/2006	6	0	0	250	250	--	--	--	--	--	300	--	1,047	--
100-D Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	N	4/26/2006	5/11/2011	131	129	98	0	2.0	3.2	2,950	127	46	B25BD2	10	115	--	--
100-D Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	Y	1/16/2006	5/11/2011	103	99	96	2.0	5.0	3.0	2,960	144	42	B25BD1	10	84	--	--
100-D Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	N	1/3/2006	4/26/2011	347	277	80	2.0	2.0	2.0	422	36	16	B1PPF2	10	187	--	--
100-D Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	Y	1/12/2006	4/26/2011	308	242	79	-3.00E-01	5.0	2.0	380	38	16	B229P3	10	161	--	--

Table L-41. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-PORE-WATER	Hexavalent Chromium	18540-29-9	µg/L	N	1/29/2006	12/16/2006	8	5	63	3.0	3.0	3.9	21	11	6.6	J13W71	10	2	--	--
100-D-SEEP	Hexavalent Chromium	18540-29-9	µg/L	N	11/4/1996	11/4/1996	1	1	100	--	--	70	70	70	70	B0JRS5	10	1	--	--
100-D-SW	Hexavalent Chromium	18540-29-9	µg/L	N	1/29/2006	2/6/2006	6	4	67	3.0	3.0	3.4	6.2	4.4	4.0	J112V8	10	--	--	--
100-D Near-Shore Wells	Iron	7439-89-6	µg/L	N	11/8/2006	2/23/2011	36	31	86	18	38	29	1,560	230	99	B216B2	1,000	2	570	2
100-D Near-Shore Wells	Iron	7439-89-6	µg/L	Y	11/8/2006	2/23/2011	37	18	49	9.0	38	11	339	59	34	B1XLH2	1,000	--	570	--
100-D Aquifer Tubes	Iron	7439-89-6	µg/L	N	1/3/2006	2/18/2011	64	46	72	18	38	21	1,190	193	136	B1LLB7	1,000	1	570	2
100-D Aquifer Tubes	Iron	7439-89-6	µg/L	Y	1/12/2006	2/18/2011	62	21	34	9.0	38	9.7	143	32	22	B263B6	1,000	--	570	--
100-D-PORE-WATER	Iron	7439-89-6	µg/L	N	1/29/2006	11/25/2006	7	1	14	32	32	68	68	68	68	J13HH0	1,000	--	570	--
100-D-SEEP	Iron	7439-89-6	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	46	20,400	2,056	180	B15HW1	1,000	1	570	2
100-D-SEEP	Iron	7439-89-6	µg/L	Y	10/21/2002	10/27/2003	4	2	50	16	20	16	18	17	17	B15HW2	1,000	--	570	--
100-D-SW	Iron	7439-89-6	µg/L	N	1/29/2006	2/6/2006	6	1	17	32	32	37	37	37	37	J112X9	1,000	--	570	--
100-D Near-Shore Wells	Lead	7439-92-1	µg/L	N	10/7/2009	6/3/2010	9	2	22	0.10	0.20	0.37	0.39	0.38	0.38	B23VF5	2.1	--	0.92	--
100-D Near-Shore Wells	Lead	7439-92-1	µg/L	Y	10/7/2009	6/3/2010	9	1	11	0.10	0.20	0.34	0.34	0.34	0.34	B257F8	2.1	--	0.92	--
100-D Aquifer Tubes	Lead	7439-92-1	µg/L	N	7/23/2010	12/14/2010	12	5	42	0.20	0.20	0.21	0.57	0.42	0.44	B27V19	2.1	--	0.92	--
100-D-PORE-WATER	Lead	7439-92-1	µg/L	N	1/29/2006	11/25/2006	7	0	0	1.6	3.1	--	--	--	--	--	2.1	--	0.92	--
100-D-SEEP	Lead	7439-92-1	µg/L	N	11/4/1996	10/26/2004	9	9	100	--	--	0.27	8.0	2.2	1.2	B15C86	2.1	2	0.92	6
100-D-SEEP	Lead	7439-92-1	µg/L	Y	10/27/2003	10/26/2004	4	4	100	--	--	0.016	0.20	0.094	0.079	B1BFX3	2.1	--	0.92	--
100-D-SW	Lead	7439-92-1	µg/L	N	1/29/2006	2/6/2006	6	0	0	3.1	3.1	--	--	--	--	--	2.1	--	0.92	--
100-D Near-Shore Wells	Manganese	7439-96-5	µg/L	N	11/8/2006	2/23/2011	36	15	42	3.0	6.0	4.1	64	17	17	B22X32	120	--	39	1
100-D Near-Shore Wells	Manganese	7439-96-5	µg/L	Y	11/8/2006	2/23/2011	37	6	16	1.0	6.0	4.7	23	15	15	B1XLH2	120	--	39	--
100-D Aquifer Tubes	Manganese	7439-96-5	µg/L	N	1/3/2006	2/18/2011	64	37	58	0.10	6.0	3.6	171	37	23	B25XD3	120	1	39	10
100-D Aquifer Tubes	Manganese	7439-96-5	µg/L	Y	1/12/2006	2/18/2011	62	22	35	0.10	6.0	0.54	149	35	16	B1R8W5	120	1	39	6
100-D-PORE-WATER	Manganese	7439-96-5	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	1.1	8.3	3.4	2.1	J112C3	120	--	39	--
100-D-SEEP	Manganese	7439-96-5	µg/L	N	8/22/1994	10/27/2003	11	11	100	--	--	0.61	935	100	12	B15HW1	120	1	39	2
100-D-SEEP	Manganese	7439-96-5	µg/L	Y	10/21/2002	10/27/2003	4	3	75	0.30	0.30	2.1	8.5	4.6	3.2	B15HW5	120	--	39	--
100-D-SW	Manganese	7439-96-5	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	1.8	3.4	2.5	2.4	J112X9	120	--	39	--
100-D Near-Shore Wells	Mercury	7439-97-6	µg/L	N	10/7/2009	6/3/2010	9	0	0	0.050	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-D Near-Shore Wells	Mercury	7439-97-6	µg/L	Y	10/7/2009	6/3/2010	9	0	0	0.050	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-D Aquifer Tubes	Mercury	7439-97-6	µg/L	N	7/23/2010	12/14/2010	12	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-D-PORE-WATER	Mercury	7439-97-6	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-D-SEEP	Mercury	7439-97-6	µg/L	N	10/17/2000	10/26/2004	8	8	100	--	--	4.69E-04	0.021	0.0068	0.0036	B15C88	0.012	2	0.0030	4
100-D-SW	Mercury	7439-97-6	µg/L	N	1/29/2006	2/6/2006	6	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-D Near-Shore Wells	Nickel	7440-02-0	µg/L	N	11/8/2006	2/23/2011	36	21	58	4.0	6.0	4.0	69	25	20	B1R3N7	45	3	1.6	21
100-D Near-Shore Wells	Nickel	7440-02-0	µg/L	Y	11/8/2006	2/23/2011	37	17	46	4.0	7.5	4.0	68	26	25	B1R3N6	45	2	1.6	17
100-D Aquifer Tubes	Nickel	7440-02-0	µg/L	N	1/3/2006	2/18/2011	64	29	45	4.0	6.0	1.2	195	40	15	B1R8V1	45	10	1.6	28
100-D Aquifer Tubes	Nickel	7440-02-0	µg/L	Y	1/12/2006	2/18/2011	62	24	39	4.0	7.5	0.32	188	46	30	B1R8V2	45	8	1.6	23
100-D-PORE-WATER	Nickel	7440-02-0	µg/L	N	1/29/2006	11/25/2006	7	2	29	1.3	1.3	1.7	2.6	2.2	2.2	J13HH0	45	--	1.6	2
100-D-SEEP	Nickel	7440-02-0	µg/L	N	8/22/1994	10/26/2004	16	10	63	2.0	16	0.22	29	7.9	4.0	B15HW1	45	--	1.6	7
100-D-SEEP	Nickel	7440-02-0	µg/L	Y	10/21/2002	10/26/2004	8	5	63	2.0	16	1.3	5.0	2.7	2.3	B1BFX3	45	--	1.6	4
100-D-SW	Nickel	7440-02-0	µg/L	N	1/29/2006	2/6/2006	6	1	17	1.3	1.3	1.3	1.3	1.3	1.3	J112F7	45	--	1.6	--
100-D Near-Shore Wells	Nitrate	14797-55-8	µg/L	N	2/7/2006	2/23/2011	76	75	99	1,370	1,370	3,000	52,200	24,396	25,100	B1L2T8	7,100	73	26,871	29
100-D Aquifer Tubes	Nitrate	14797-55-8	µg/L	N	1/3/2006	3/18/2011	207	200	97	84	274	53	41,600	10,225	8,190	B1F7M2	7,100	110	26,871	12
100-D Near-Shore Wells	Nitrite	14797-65-0	µg/L	N	2/7/2006	2/23/2011	76	5	6.6	9.9	591	31	2,040	933	887	B1L2T8	246	4	94	4
100-D Aquifer Tubes	Nitrite	14797-65-0	µg/L	N	1/3/2006	3/18/2011	207	3	1.5	13	591	39	460	187	62	B22CF9	246	1	94	1
100-D-PORE-WATER	Nitrogen in Nitrate	NO3-N	µg/L	N	1/29/2006	11/25/2006	7	7	100	--	--	122	980	306	151	J13HH0	1,600	--	--	--
100-D-SEEP	Nitrogen in Nitrate	NO3-N	µg/L	N	8/22/1994	10/26/2004	18	18	100	--	--	226	295,000	19,608	2,203	B10JR0	1,600	10	--	--
100-D-SW	Nitrogen in Nitrate	NO3-N	µg/L	N	1/29/2006	2/6/2006	6	6	100	--	--	113	470	196	135	J112F8	1,600	--	--	--
100-D Near-Shore Wells	Selenium	7782-49-2	µg/L	N	8/10/2009	6/3/2010	10	7	70	0.60	0.60	0.38	2.2	1.3	0.99	B23VF5	5.0	--	11	--
100-D Near-Shore Wells	Selenium	7782-49-2	µg/L	Y	8/10/2009	6/3/2010	10	9	90	0.60	0.60	0.45	2.6	1.2	0.81	B257F8	5.0	--	11	--
100-D Aquifer Tubes	Selenium	7782-49-2	µg/L	N	7/23/2010	12/14/2010	12	8	67	0.60	0.60	0.81	1.8	1.3	1.4	B25XD3	5.0	--	11	--
100-D-PORE-WATER	Selenium	7782-49-2	µg/L	N	1/29/2006	11/25/2006	7	1	14	3.6	4.3	4.9	4.9	4.9	4.9	J11248	5.0	--	11	--
100-D-SEEP	Selenium	7782-49-2	µg/L	N	11/4/1996	10/26/2004	9	5	56	0.10	3.8	0.34	2.7	1.1	0.95	B15C87	5.0	--	11	--
100-D-SEEP	Selenium	7782-49-2	µg/L	Y	10/27/2003	10/26/2004	4	2	50	0.50	0.50	0.22	0.33	0.27	0.27	B1BFX3	5.0	--	11	--
100-D-SW	Selenium	7782-49-2	µg/L	N	1/29/2006	2/6/2006	6	1	17	3.6	3.6	5.9	5.9	5.9	5.9	J112X9	5.0	1	11	--
100-D Near-Shore Wells	Silver	7440-22-4	µg/L	N	11/8/2006	2/23/2011	36	4	11	0.10	11	23	29	26	25	B1R3N7	2.6	4	5.3	4
100-D Near-Shore Wells	Silver	7440-22-4	µg/L	Y	11/8/2006	2/23/2011	37	5	14	0.10	11	0.29	31	21	26	B1R3N3	2.6	4	5.3	4
100-D Aquifer Tubes	Silver	7440-22-4	µg/L	N	1/3/2006	2/18/2011	64	2	3.1	0.10	7.0	8.0	22	15	15	B1R8R9	2.6	2	5.3	2
100-D Aquifer Tubes	Silver	7440-22-4	µg/L	Y	1/12/2006	2/18/2011	62	1	1.6	0.10	7.0	22	22	22	22	B1R8R8	2.6	1	5.3	1
100-D-PORE-WATER	Silver	7440-22-4	µg/L	N	1/29/2006	11/25/2006	7	0	0	0.50	1.4	--	--	--	--	--	2.6	--	5.3	--
100-D-SEEP	Silver	7440-22-4	µg/L	N	11/4/1996	10/26/2004	15	4	27	0.0017	7.4	0.0070	0.053	0.026	0.022	B15C86	2.6	--	5.3	--

Table L-41. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-D Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-D-SEEP	Silver	7440-22-4	µg/L	Y	10/21/2002	10/26/2004	8	0	0	0.0017	1.7	--	--	--	--	--	2.6	--	5.3	--
100-D-SW	Silver	7440-22-4	µg/L	N	1/29/2006	2/6/2006	6	0	0	1.4	1.4	--	--	--	--	--	2.6	--	5.3	--
100-D Near-Shore Wells	Zinc	7440-66-6	µg/L	N	11/8/2006	2/23/2011	36	28	78	4.0	9.0	6.0	342	115	97	B1XLL8	90	16	22	23
100-D Near-Shore Wells	Zinc	7440-66-6	µg/L	Y	11/8/2006	2/23/2011	37	29	78	4.0	9.0	5.0	329	111	83	B1L324	90	12	22	24
100-D Aquifer Tubes	Zinc	7440-66-6	µg/L	N	1/3/2006	2/18/2011	64	25	39	0.80	9.0	6.0	111	35	27	B24LB6	90	2	22	16
100-D Aquifer Tubes	Zinc	7440-66-6	µg/L	Y	1/12/2006	2/18/2011	62	15	24	0.80	9.0	1.8	47	23	23	B1R8X2	90	--	22	8
100-D-PORE-WATER	Zinc	7440-66-6	µg/L	N	1/29/2006	11/25/2006	7	3	43	0.50	3.1	0.86	6.4	3.7	3.7	J13HH0	90	--	22	--
100-D-SEEP	Zinc	7440-66-6	µg/L	N	8/22/1994	10/26/2004	19	19	100	--	--	1.5	415	36	9.9	B15HW1	90	1	22	4
100-D-SEEP	Zinc	7440-66-6	µg/L	Y	10/21/2002	10/26/2004	8	8	100	--	--	1.2	28	6.8	3.1	B15HW5	90	--	22	1
100-D-SW	Zinc	7440-66-6	µg/L	N	1/29/2006	2/6/2006	6	4	67	1.5	1.7	1.7	7.8	4.5	4.2	J112F8	90	--	22	--

Table L-42. Summary of Groundwater Analytes That Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Aluminum	7429-90-5	µg/L	N	10/11/2009	2/25/2011	21	12	57	10	10	6.1	3,320	87	5	7.1	11
100-H Near-Shore Wells	Antimony	7440-36-0	µg/L	Y	11/8/2006	2/16/2011	65	1	1.5	0.60	72	40	40	30	1	55	--
100-H Near-Shore Wells	Cadmium	7440-43-9	µg/L	Y	11/8/2006	2/16/2011	65	2	3.1	0.20	4.0	0.24	0.39	0.22	2	0.92	--
100-H Near-Shore Wells	Chromium	7440-47-3	µg/L	N	11/8/2006	2/25/2011	70	55	79	1.0	14	2.9	319	64	8	2.4	55
100-H Near-Shore Wells	Chromium	7440-47-3	µg/L	Y	11/8/2006	2/16/2011	65	46	71	4.0	14	6.6	128	64	7	2.4	46
100-H Near-Shore Wells	Cobalt	7440-48-4	µg/L	N	11/8/2006	2/25/2011	70	15	21	0.050	7.0	0.062	25	23	1	0.92	4
100-H Near-Shore Wells	Cobalt	7440-48-4	µg/L	Y	11/8/2006	2/16/2011	65	8	12	0.10	7.0	0.11	27	23	1	0.92	3
100-H Near-Shore Wells	Copper	7440-50-8	µg/L	N	11/8/2006	2/25/2011	70	27	39	0.20	7.0	0.12	136	10	6	0.81	22
100-H Near-Shore Wells	Copper	7440-50-8	µg/L	Y	11/8/2006	2/16/2011	65	11	17	0.20	10	0.22	13	10	1	0.81	9
100-H Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	N	1/3/2006	5/2/2011	590	573	97	0	2.0	2.0	287	10	472	--	--
100-H Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	Y	1/16/2006	4/20/2011	111	101	91	2.0	5.0	3.4	140	10	76	--	--
100-H Near-Shore Wells	Lead	7439-92-1	µg/L	N	10/11/2009	2/25/2011	21	6	29	0.10	0.20	0.24	7.9	2.1	2	0.92	4
100-H Near-Shore Wells	Lead	7439-92-1	µg/L	Y	10/11/2009	2/16/2011	12	4	33	0.20	23	0.37	2.5	2.1	2	0.92	2
100-H Near-Shore Wells	Manganese	7439-96-5	µg/L	N	11/8/2006	2/25/2011	70	14	20	0.96	6.0	4.8	447	120	2	39	8
100-H Near-Shore Wells	Nitrate	14797-55-8	µg/L	N	5/23/2006	2/25/2011	115	115	100	--	--	460	42,900	7,100	95	26,871	32
100-H Near-Shore Wells	Nitrite	14797-65-0	µg/L	N	11/8/2006	2/25/2011	87	5	5.8	9.9	151	52	1,480	246	3	94	4
100-H Near-Shore Wells	Potassium-40	13966-00-2	pCi/L	N	10/11/2009	2/25/2011	25	2	8.0	-1.70E+02	56	210	280	250	1	203	2
100-H Near-Shore Wells	Radium-226	13982-63-3	pCi/L	N	1/21/2011	1/22/2011	3	2	67	-7.70E+01	-7.70E+01	79	82	4.1	2	1.1	2
100-H Near-Shore Wells	Silver	7440-22-4	µg/L	N	11/8/2006	2/25/2011	70	3	4.3	0.10	11	16	30	2.6	3	5.3	3
100-H Near-Shore Wells	Silver	7440-22-4	µg/L	Y	11/8/2006	2/16/2011	65	3	4.6	0.20	11	0.32	25	2.6	2	5.3	1
100-H Near-Shore Wells	Uranium	7440-61-1	µg/L	N	5/4/2006	2/25/2011	105	105	100	--	--	0.41	11	5.0	16	9.9	1
100-H Near-Shore Wells	Zinc	7440-66-6	µg/L	N	11/8/2006	2/25/2011	70	32	46	4.0	9.0	3.6	384	90	7	22	13
100-H Near-Shore Wells	Zinc	7440-66-6	µg/L	Y	11/8/2006	2/16/2011	65	22	34	4.0	9.6	4.0	855	90	2	22	8

Table L-43. Summary of Aquifer Tube Analytes That Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	N	1/30/2007	4/28/2011	254	198	78	2.0	5.0	2.1	74	10	118	--	--
100-H Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	Y	1/31/2007	4/28/2011	105	83	79	2.0	5.0	2.3	42	10	41	--	--
100-H Aquifer Tubes	Manganese	7439-96-5	µg/L	N	3/3/2009	3/3/2011	10	5	50	4.0	6.0	6.0	167	120	1	39	1
100-H Aquifer Tubes	Nitrate	14797-55-8	µg/L	N	1/30/2007	2/4/2011	68	68	100	--	--	553	602,000	7,100	44	26,871	15
100-H Aquifer Tubes	Potassium-40	13966-00-2	pCi/L	N	9/15/2010	12/16/2010	4	1	25	-8.20E+01	-2.10E+01	300	300	250	1	203	1

Table L-44. Summary of Seep/Spring Analytes That Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SEEP	Aluminum	7429-90-5	µg/L	N	8/25/1994	11/20/2003	9	8	89	17	17	27	2,120	87	4	7.1	8
100-H-SEEP	Cadmium	7440-43-9	µg/L	N	11/1/2000	10/26/2004	13	9	69	2.5	3.3	0.016	3.5	0.22	3	0.92	2
100-H-SEEP	Calculated Total Uranium	calc_tot_U	µg/L	N	9/20/1993	10/26/2004	24	24	100	--	--	0.41	12	5.0	7	9.9	3
100-H-SEEP	Copper	7440-50-8	µg/L	N	8/25/1994	10/26/2004	15	12	80	0.86	0.86	0.57	27	10	1	0.81	9
100-H-SEEP	Fluoride	16984-48-8	µg/L	N	8/25/1994	10/26/2004	17	17	100	--	--	47	500	300	3	1,047	--
100-H-SEEP	Iron	7439-89-6	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	20	2,240	1,000	1	570	1
100-H-SEEP	Lead	7439-92-1	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	0.37	66	2.1	2	0.92	2
100-H-SEEP	Mercury	7439-97-6	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	7.23E-04	0.041	0.012	1	0.0030	1
100-H-SEEP	Nitrogen in Nitrate	NO3-N	µg/L	N	8/25/1994	10/26/2004	20	20	100	--	--	100	23,000	1,600	14	--	--
100-H-SEEP	Silver	7440-22-4	µg/L	N	11/1/2000	10/26/2004	13	6	46	0.0017	3.1	0.0073	3.0	2.6	1	5.3	--
100-H-SEEP	Zinc	7440-66-6	µg/L	N	8/25/1994	10/26/2004	16	16	100	--	--	1.8	282	90	1	22	3

Table L-45. Summary of Surface Water Analytes That Exceed an Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H-SW	Aluminum	7429-90-5	µg/L	N	9/28/1995	2/6/2007	5	4	80	23	23	40	380,000	87	3	7.1	4
100-H-SW	Antimony	7440-36-0	µg/L	N	9/28/1995	2/6/2007	5	3	60	2.5	2.5	27	61	30	2	55	1
100-H-SW	Barium	7440-39-3	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	30	3,000	364	3	105	3
100-H-SW	Cadmium	7440-43-9	µg/L	N	9/28/1995	2/6/2007	5	2	40	0.30	0.98	1.8	19	0.22	2	0.92	2
100-H-SW	Chromium	7440-47-3	µg/L	N	9/28/1995	2/6/2007	5	3	60	1.2	1.2	170	1,900	64	3	2.4	3
100-H-SW	Cobalt	7440-48-4	µg/L	N	9/28/1995	2/6/2007	5	3	60	0.50	0.50	97	540	23	3	0.92	3
100-H-SW	Copper	7440-50-8	µg/L	N	9/28/1995	2/6/2007	5	4	80	0.70	0.70	2.8	800	10	3	0.81	4
100-H-SW	Iron	7439-89-6	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	24	760,000	1,000	3	570	3
100-H-SW	Manganese	7439-96-5	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	2.2	22,000	120	3	39	3
100-H-SW	Nickel	7440-02-0	µg/L	N	9/28/1995	2/6/2007	5	3	60	2.2	2.2	130	910	45	3	1.6	3
100-H-SW	Vanadium	7440-62-2	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	1.0	1,200	100	3	12	3
100-H-SW	Zinc	7440-66-6	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	2.1	7,500	90	3	22	3

Table L-46. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Aluminum	7429-90-5	µg/L	N	10/11/2009	2/25/2011	21	12	57	10	10	6.1	3,320	452	34	B29HW8	87	5	7.1	11
100-H Near-Shore Wells	Aluminum	7429-90-5	µg/L	Y	10/11/2009	2/16/2011	11	3	27	10	10	10	20	15	16	B29C11	87	--	7.1	3
100-H-PORE-WATER	Aluminum	7429-90-5	µg/L	N	1/9/2007	2/4/2007	2	1	50	23	23	25	25	25	25	J13VF0	87	--	7.1	1
100-H-SEEP	Aluminum	7429-90-5	µg/L	N	8/25/1994	11/20/2003	9	8	89	17	17	27	2,120	374	87	B17VK5	87	4	7.1	8
100-H-SEEP	Aluminum	7429-90-5	µg/L	Y	10/27/2002	11/20/2003	6	0	0	17	34	--	--	--	--	--	87	--	7.1	--
100-H-SW	Aluminum	7429-90-5	µg/L	N	9/28/1995	2/6/2007	5	4	80	23	23	40	380,000	144,510	99,000	B0G124	87	3	7.1	4
100-H Near-Shore Wells	Antimony	7440-36-0	µg/L	N	11/8/2006	2/25/2011	70	0	0	0.30	72	--	--	--	--	--	30	--	55	--
100-H Near-Shore Wells	Antimony	7440-36-0	µg/L	Y	11/8/2006	2/16/2011	65	1	1.5	0.60	72	40	40	40	40	B1R474	30	1	55	--
100-H Aquifer Tubes	Antimony	7440-36-0	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.30	56	--	--	--	--	--	30	--	55	--
100-H Aquifer Tubes	Antimony	7440-36-0	µg/L	Y	3/3/2009	3/3/2011	10	0	0	38	56	--	--	--	--	--	30	--	55	--
100-H-PORE-WATER	Antimony	7440-36-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	2.5	2.5	--	--	--	--	--	30	--	55	--
100-H-SEEP	Antimony	7440-36-0	µg/L	N	11/1/2000	10/26/2004	13	7	54	30	39	0.18	0.38	0.25	0.25	B17RK5	30	--	55	--
100-H-SEEP	Antimony	7440-36-0	µg/L	Y	10/27/2002	10/26/2004	10	4	40	30	39	0.18	0.27	0.22	0.22	B1BH01	30	--	55	--
100-H-SW	Antimony	7440-36-0	µg/L	N	9/28/1995	2/6/2007	5	3	60	2.5	2.5	27	61	48	55	B0G123	30	2	55	1
100-H Near-Shore Wells	Barium	7440-39-3	µg/L	N	11/8/2006	2/25/2011	70	70	100	--	--	26	150	64	59	B29C14	364	--	105	5
100-H Near-Shore Wells	Barium	7440-39-3	µg/L	Y	11/8/2006	2/16/2011	65	65	100	--	--	30	121	59	55	B22MT9	364	--	105	5
100-H Aquifer Tubes	Barium	7440-39-3	µg/L	N	3/3/2009	3/3/2011	10	10	100	--	--	14	56	26	23	B25XD5	364	--	105	--
100-H Aquifer Tubes	Barium	7440-39-3	µg/L	Y	3/3/2009	3/3/2011	10	10	100	--	--	13	28	21	20	B1Y486	364	--	105	--
100-H-PORE-WATER	Barium	7440-39-3	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	29	33	31	31	J13VF0	364	--	105	--
100-H-SEEP	Barium	7440-39-3	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	22	53	34	28	B17VK5	364	--	105	--
100-H-SEEP	Barium	7440-39-3	µg/L	Y	10/27/2002	11/20/2003	6	6	100	--	--	21	28	25	26	B15HY2	364	--	105	--
100-H-SW	Barium	7440-39-3	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	30	3,000	1,051	590	B0G124	364	3	105	3
100-H Near-Shore Wells	Cadmium	7440-43-9	µg/L	N	11/8/2006	2/25/2011	70	0	0	0.10	4.0	--	--	--	--	--	0.22	--	0.92	--
100-H Near-Shore Wells	Cadmium	7440-43-9	µg/L	Y	11/8/2006	2/16/2011	65	2	3.1	0.20	4.0	0.24	0.39	0.32	0.32	B23VV5	0.22	2	0.92	--
100-H Aquifer Tubes	Cadmium	7440-43-9	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.10	4.0	--	--	--	--	--	0.22	--	0.92	--
100-H Aquifer Tubes	Cadmium	7440-43-9	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	4.0	--	--	--	--	--	0.22	--	0.92	--
100-H-PORE-WATER	Cadmium	7440-43-9	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.30	0.30	--	--	--	--	--	0.22	--	0.92	--
100-H-SEEP	Cadmium	7440-43-9	µg/L	N	11/1/2000	10/26/2004	13	9	69	2.5	3.3	0.016	3.5	0.85	0.037	B15HX5	0.22	3	0.92	2
100-H-SEEP	Cadmium	7440-43-9	µg/L	Y	10/27/2002	10/26/2004	10	4	40	2.5	3.3	0.011	0.041	0.025	0.024	B17RK6	0.22	--	0.92	--
100-H-SW	Cadmium	7440-43-9	µg/L	N	9/28/1995	2/6/2007	5	2	40	0.30	0.98	1.8	19	10	10	B0G124	0.22	2	0.92	2
100-H-PORE-WATER	Calculated Total Uranium	calc_tot_U	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	0.31	0.99	0.65	0.65	J13VH5	5.0	--	9.9	--
100-H-SEEP	Calculated Total Uranium	calc_tot_U	µg/L	N	9/20/1993	10/26/2004	24	24	100	--	--	0.41	12	3.8	2.1	B0C5F8	5.0	7	9.9	3
100-H-SW	Calculated Total Uranium	calc_tot_U	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	0.49	3.6	1.4	0.86	B0GWM1	5.0	--	9.9	--
100-H Near-Shore Wells	Chromium	7440-47-3	µg/L	N	11/8/2006	2/25/2011	70	55	79	1.0	14	2.9	319	35	19	B290C8	64	8	2.4	55
100-H Near-Shore Wells	Chromium	7440-47-3	µg/L	Y	11/8/2006	2/16/2011	65	46	71	4.0	14	6.6	128	32	19	B292W8	64	7	2.4	46
100-H Aquifer Tubes	Chromium	7440-47-3	µg/L	N	3/3/2009	3/3/2011	10	4	40	13	14	20	37	26	23	B27V31	64	--	2.4	4
100-H Aquifer Tubes	Chromium	7440-47-3	µg/L	Y	3/3/2009	3/3/2011	10	5	50	13	14	14	36	22	19	B27V30	64	--	2.4	5
100-H-PORE-WATER	Chromium	7440-47-3	µg/L	N	1/9/2007	2/4/2007	2	0	0	1.2	1.2	--	--	--	--	--	64	--	2.4	--
100-H-SEEP	Chromium	7440-47-3	µg/L	N	8/25/1994	10/26/2004	16	14	88	3.4	4.4	3.6	63	20	13	B17RK5	64	--	2.4	14
100-H-SEEP	Chromium	7440-47-3	µg/L	Y	10/27/2002	10/26/2004	10	7	70	3.4	4.4	4.6	33	14	9.4	B17RK6	64	--	2.4	7
100-H-SW	Chromium	7440-47-3	µg/L	N	9/28/1995	2/6/2007	5	3	60	1.2	1.2	170	1,900	780	270	B0G124	64	3	2.4	3
100-H Near-Shore Wells	Cobalt	7440-48-4	µg/L	N	11/8/2006	2/25/2011	70	15	21	0.050	7.0	0.062	25	2.7	0.51	B1R201	23	1	0.92	4
100-H Near-Shore Wells	Cobalt	7440-48-4	µg/L	Y	11/8/2006	2/16/2011	65	8	12	0.10	7.0	0.11	27	4.6	0.38	B1R200	23	1	0.92	3
100-H Aquifer Tubes	Cobalt	7440-48-4	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	5.0	--	--	--	--	--	23	--	0.92	--
100-H Aquifer Tubes	Cobalt	7440-48-4	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	5.0	--	--	--	--	--	23	--	0.92	--
100-H-PORE-WATER	Cobalt	7440-48-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.50	0.50	--	--	--	--	--	23	--	0.92	--
100-H-SEEP	Cobalt	7440-48-4	µg/L	N	10/27/2002	11/20/2003	6	0	0	4.8	5.0	--	--	--	--	--	23	--	0.92	--
100-H-SEEP	Cobalt	7440-48-4	µg/L	Y	10/27/2002	11/20/2003	6	0	0	4.8	5.0	--	--	--	--	--	23	--	0.92	--
100-H-SW	Cobalt	7440-48-4	µg/L	N	9/28/1995	2/6/2007	5	3	60	0.50	0.50	97	540	252	120	B0G124	23	3	0.92	3
100-H Near-Shore Wells	Copper	7440-50-8	µg/L	N	11/8/2006	2/25/2011	70	27	39	0.20	7.0	0.12	136	12	4.4	B29HW8	10	6	0.81	22
100-H Near-Shore Wells	Copper	7440-50-8	µg/L	Y	11/8/2006	2/16/2011	65	11	17	0.20	10	0.22	13	4.4	4.2	B1R200	10	1	0.81	9
100-H Aquifer Tubes	Copper	7440-50-8	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	--	--	--	10	--	0.81	--
100-H Aquifer Tubes	Copper	7440-50-8	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	--	--	--	10	--	0.81	--
100-H-PORE-WATER	Copper	7440-50-8	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	0.94	1.4	1.2	1.2	J13VH5	10	--	0.81	2
100-H-SEEP	Copper	7440-50-8	µg/L	N	8/25/1994	10/26/2004	15	12	80	0.86	0.86	0.57	27	4.5	2.2	B17RK5	10	1	0.81	9
100-H-SEEP	Copper	7440-50-8	µg/L	Y	10/27/2002	10/26/2004	10	4	40	0.86	2.9	0.47	0.52	0.49	0.48	B17RM0	10	--	0.81	--
100-H-SW	Copper	7440-50-8	µg/L	N	9/28/1995	2/6/2007	5	4	80	0.70	0.70	2.8	800	306	210	B0G124	10	3	0.81	4
100-H Near-Shore Wells	Fluoride	16984-48-8	µg/L	N	11/8/2006	2/25/2011	91	60	66	13	88	26	255	120	113	B1R465	300	--	1,047	--
100-H Aquifer Tubes	Fluoride	16984-48-8	µg/L	N	1/30/2007	2/4/2011	68	50	74	29	88	14	182	106	105	B1TRB8	300	--	1,047	--
100-H-PORE-WATER	Fluoride	16984-48-8	µg/L	N	1/9/2007	2/4/2007	2	0	0	250	250	--	--	--	--	--	300	--	1,047	--
100-H-SEEP	Fluoride	16984-48-8	µg/L	N	8/25/1994	10/26/2004	17	17	100	--	--	47	500	197	143	B0CSF8	300	3	1,047	--
100-H-SW	Fluoride	16984-48-8	µg/L	N	10/30/1995	2/6/2007	4	2	50	250	250	98	140	119	119	B0G122	300	--	1,047	--
100-H Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	N	1/3/2006	5/2/2011	590	573	97	0	2.0	2.0	287	23	17	B290C8	10	472	--	--
100-H Near-Shore Wells	Hexavalent Chromium	18540-29-9	µg/L	Y	1/16/2006	4/20/2011	111	101	91	2.0	5.0	3.4	140	28	15	B29695	10	76	--	--
100-H Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	N	1/30/2007	4/28/2011	254	198	78	2.0	5.0	2.1	74	18	12	B1V5X2	10	118	--	--
100-H Aquifer Tubes	Hexavalent Chromium	18540-29-9	µg/L	Y	1/31/2007	4/28/2011	105	83	79	2.0	5.0	2.3	42	12	10	B23524	10	41	--	--
100-H-PORE-WATER	Hexavalent Chromium	18540-29-9	µg/L	N	1/9/2007	2/4/2007	2	1	50	3.0	3.0	4.6	4.6	4.6	4.6	J13VH3	10	--	--	--
100-H-SW	Hexavalent Chromium	18540-29-9	µg/L	N	1/9/2007	2/6/2007	2	1	50	3.0	3.0	3.6	3.6	3.6	3.6	J13VD8	10	--	--	--
100-H Near-Shore Wells	Iron	7439-89-6	µg/L	N	11/8/2006	1/24/2011	59	28	47	9.0	38	12	733	68	34	B292Y7	1,000	--	570	1

Table L-46. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Near-Shore Wells	Iron	7439-89-6	µg/L	Y	11/8/2006	2/16/2011	65	15	23	9.0	38	18	298	55	34	B21RX9	1,000	--	570	--
100-H Aquifer Tubes	Iron	7439-89-6	µg/L	N	3/3/2009	3/3/2011	10	7	70	25	38	38	568	150	74	B25XD5	1,000	--	570	--
100-H Aquifer Tubes	Iron	7439-89-6	µg/L	Y	3/3/2009	3/3/2011	10	0	0	18	38	--	--	--	--	--	1,000	--	570	--
100-H-PORE-WATER	Iron	7439-89-6	µg/L	N	1/9/2007	2/4/2007	2	1	50	24	24	27	27	27	27	J13VH5	1,000	--	570	--
100-H-SEEP	Iron	7439-89-6	µg/L	N	8/25/1994	11/20/2003	9	9	100	--	--	20	2,240	371	140	B17VK5	1,000	1	570	1
100-H-SEEP	Iron	7439-89-6	µg/L	Y	10/27/2002	11/20/2003	6	1	17	16	55	16	16	16	16	B15HY2	1,000	--	570	--
100-H-SW	Iron	7439-89-6	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	24	760,000	212,012	120,000	B0G124	1,000	3	570	3
100-H Near-Shore Wells	Lead	7439-92-1	µg/L	N	10/11/2009	2/25/2011	21	6	29	0.10	0.20	0.24	7.9	2.3	1.4	B29HW8	2.1	2	0.92	4
100-H Near-Shore Wells	Lead	7439-92-1	µg/L	Y	10/11/2009	2/16/2011	12	4	33	0.20	23	0.37	2.5	1.4	1.3	B29M07	2.1	2	0.92	2
100-H Aquifer Tubes	Lead	7439-92-1	µg/L	N	8/10/2010	12/16/2010	6	1	17	0.10	0.20	0.77	0.77	0.77	0.77	B25XD5	2.1	--	0.92	--
100-H-PORE-WATER	Lead	7439-92-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	1.6	1.6	--	--	--	--	--	2.1	--	0.92	--
100-H-SEEP	Lead	7439-92-1	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	0.37	66	11	0.49	B17RK5	2.1	2	0.92	2
100-H-SEEP	Lead	7439-92-1	µg/L	Y	10/27/2003	10/26/2004	4	3	75	0.011	0.011	0.028	0.28	0.15	0.15	B1BFX5	2.1	--	0.92	--
100-H-SW	Lead	7439-92-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	1.6	1.6	--	--	--	--	--	2.1	--	0.92	--
100-H Near-Shore Wells	Manganese	7439-96-5	µg/L	N	11/8/2006	2/25/2011	70	14	20	0.96	6.0	4.8	447	78	53	B29HW8	120	2	39	8
100-H Near-Shore Wells	Manganese	7439-96-5	µg/L	Y	11/8/2006	2/16/2011	65	7	11	0.96	6.0	2.6	16	9.3	9.5	B1R200	120	--	39	--
100-H Aquifer Tubes	Manganese	7439-96-5	µg/L	N	3/3/2009	3/3/2011	10	5	50	4.0	6.0	6.0	167	42	12	B25XD5	120	1	39	1
100-H Aquifer Tubes	Manganese	7439-96-5	µg/L	Y	3/3/2009	3/3/2011	10	2	20	4.0	6.0	4.2	6.0	5.1	5.1	B25XF3	120	--	39	--
100-H-PORE-WATER	Manganese	7439-96-5	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2.0	2.2	2.1	2.1	J13VH5	120	--	39	--
100-H-SEEP	Manganese	7439-96-5	µg/L	N	8/25/1994	11/20/2003	9	8	89	1.9	1.9	2.8	75	18	9.9	B17VK5	120	--	39	1
100-H-SEEP	Manganese	7439-96-5	µg/L	Y	10/27/2002	11/20/2003	6	0	0	1.2	1.9	--	--	--	--	--	120	--	39	--
100-H-SW	Manganese	7439-96-5	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	2.2	22,000	6,661	4,100	B0G124	120	3	39	3
100-H Near-Shore Wells	Mercury	7439-97-6	µg/L	N	10/11/2009	2/25/2011	21	0	0	0.050	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-H Near-Shore Wells	Mercury	7439-97-6	µg/L	Y	10/11/2009	5/18/2010	9	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-H Aquifer Tubes	Mercury	7439-97-6	µg/L	N	8/10/2010	12/16/2010	6	0	0	0.050	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-H-PORE-WATER	Mercury	7439-97-6	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-H-SEEP	Mercury	7439-97-6	µg/L	N	11/1/2000	10/26/2004	7	7	100	--	--	7.23E-04	0.041	0.0070	0.0014	B17RK5	0.012	1	0.0030	1
100-H-SW	Mercury	7439-97-6	µg/L	N	1/9/2007	2/6/2007	2	0	0	0.10	0.10	--	--	--	--	--	0.012	--	0.0030	--
100-H Near-Shore Wells	Nickel	7440-02-0	µg/L	N	11/8/2006	2/25/2011	70	18	26	0.40	6.0	1.4	28	8.4	6.1	B1R201	45	--	1.6	17
100-H Near-Shore Wells	Nickel	7440-02-0	µg/L	Y	11/8/2006	2/16/2011	65	11	17	4.0	7.5	0.63	25	6.6	4.8	B1R200	45	--	1.6	10
100-H Aquifer Tubes	Nickel	7440-02-0	µg/L	N	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	--	--	--	45	--	1.6	--
100-H Aquifer Tubes	Nickel	7440-02-0	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	6.0	--	--	--	--	--	45	--	1.6	--
100-H-PORE-WATER	Nickel	7440-02-0	µg/L	N	1/9/2007	2/4/2007	2	0	0	2.2	2.2	--	--	--	--	--	45	--	1.6	--
100-H-SEEP	Nickel	7440-02-0	µg/L	N	11/1/2000	10/26/2004	13	7	54	14	16	0.18	11	2.3	1.0	B17RK5	45	--	1.6	1
100-H-SEEP	Nickel	7440-02-0	µg/L	Y	10/27/2002	10/26/2004	10	4	40	14	16	0.76	1.3	1.1	1.1	B1BFX5	45	--	1.6	--
100-H-SW	Nickel	7440-02-0	µg/L	N	9/28/1995	2/6/2007	5	3	60	2.2	2.2	130	910	390	130	B0G124	45	3	1.6	3
100-H Near-Shore Wells	Nitrate	14797-55-8	µg/L	N	5/23/2006	2/25/2011	115	115	100	--	--	460	42,900	20,745	22,600	B1L3H5	7,100	95	26,871	32
100-H Aquifer Tubes	Nitrate	14797-55-8	µg/L	N	1/30/2007	2/4/2011	68	68	100	--	--	553	602,000	25,540	13,400	B1LR40	7,100	44	26,871	15
100-H Near-Shore Wells	Nitrite	14797-65-0	µg/L	N	11/8/2006	2/25/2011	87	5	5.8	9.9	151	52	1,480	787	815	B25635	246	3	94	4
100-H Aquifer Tubes	Nitrite	14797-65-0	µg/L	N	1/30/2007	2/4/2011	68	1	1.5	13	118	49	49	49	49	B1TRB5	246	--	94	--
100-H-PORE-WATER	Nitrogen in Nitrate	NO3-N	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	147	230	189	189	J13VH5	1,600	--	--	--
100-H-SEEP	Nitrogen in Nitrate	NO3-N	µg/L	N	8/25/1994	10/26/2004	20	20	100	--	--	100	23,000	4,751	2,970	30,931	1,600	14	--	--
100-H-SW	Nitrogen in Nitrate	NO3-N	µg/L	N	10/30/1995	2/6/2007	4	4	100	--	--	102	1,265	443	202	B0G122	1,600	--	--	--
100-H Near-Shore Wells	Potassium-40	13966-00-2	pCi/L	N	10/11/2009	2/25/2011	25	2	8.0	-1.70E+02	56	210	280	245	245	B29HW8	250	1	203	2
100-H Aquifer Tubes	Potassium-40	13966-00-2	pCi/L	N	9/15/2010	12/16/2010	4	1	25	-8.20E+01	-2.10E+01	300	300	300	300	B27V31	250	1	203	1
100-H-PORE-WATER	Potassium-40	13966-00-2	pCi/L	N	1/9/2007	2/4/2007	2	0	0	0	1,900	--	--	--	--	--	250	--	203	--
100-H-SEEP	Potassium-40	13966-00-2	pCi/L	N	9/20/1993	10/26/2004	23	8	35	-4.94E+01	33	20	222	72	53	B0G8B8	250	--	203	1
100-H-SW	Potassium-40	13966-00-2	pCi/L	N	1/9/2007	2/6/2007	2	0	0	0.039	0.089	--	--	--	--	--	250	--	203	--
100-H Near-Shore Wells	Radium-226	13982-63-3	pCi/L	N	1/21/2011	1/22/2011	3	2	67	-7.70E+01	-7.70E+01	79	82	81	81	B290C0	4.1	2	1.1	2
100-H-PORE-WATER	Radium-226	13982-63-3	pCi/L	N	1/9/2007	2/4/2007	2	0	0	-1.93E-01	0.026	--	--	--	--	--	4.1	--	1.1	--
100-H-SW	Radium-226	13982-63-3	pCi/L	N	1/9/2007	2/6/2007	2	0	0	-2.68E-01	0.13	--	--	--	--	--	4.1	--	1.1	--
100-H Near-Shore Wells	Silver	7440-22-4	µg/L	N	11/8/2006	2/25/2011	70	3	4.3	0.10	11	16	30	21	17	B1R201	2.6	3	5.3	3
100-H Near-Shore Wells	Silver	7440-22-4	µg/L	Y	11/8/2006	2/16/2011	65	3	4.6	0.20	11	0.32	25	10	5.2	B1R200	2.6	2	5.3	1
100-H Aquifer Tubes	Silver	7440-22-4	µg/L	N	3/3/2009	3/3/2011	10	0	0	0.10	7.0	--	--	--	--	--	2.6	--	5.3	--
100-H Aquifer Tubes	Silver	7440-22-4	µg/L	Y	3/3/2009	3/3/2011	10	0	0	5.0	7.0	--	--	--	--	--	2.6	--	5.3	--
100-H-PORE-WATER	Silver	7440-22-4	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.50	0.50	--	--	--	--	--	2.6	--	5.3	--
100-H-SEEP	Silver	7440-22-4	µg/L	N	11/1/2000	10/26/2004	13	6	46	0.0017	3.1	0.0073	3.0	0.52	0.010	B15HX8	2.6	1	5.3	--
100-H-SEEP	Silver	7440-22-4	µg/L	Y	10/27/2002	10/26/2004	10	2	20	0.0017	3.1	0.010	1.8	0.91	0.91	B15HX3	2.6	--	5.3	--
100-H-SW	Silver	7440-22-4	µg/L	N	9/28/1995	2/6/2007	5	0	0	0.50	5.5	--	--	--	--	--	2.6	--	5.3	--
100-H Near-Shore Wells	Uranium	7440-61-1	µg/L	N	5/4/2006	2/25/2011	105	105	100	--	--	0.41	11	2.5	1.6	B1L6J3	5	16	9.9	1
100-H Near-Shore Wells	Uranium	7440-61-1	µg/L	Y	10/11/2009	1/13/2010	9	9	100	--	--	0.53	3.1	1.6	1.5	B21PX2	5	--	9.9	--
100-H Aquifer Tubes	Uranium	7440-61-1	µg/L	N	2/6/2007	12/16/2010	21	21	100	--	--	0.18	2.3	0.99	0.96	B1PP53	5	--	9.9	--
100-H-PORE-WATER	Uranium	7440-61-1	µg/L	N	1/9/2007	2/4/2007	2	0	0	14	14	--	--	--	--	--	5	--	9.9	--
100-H-SW	Uranium	7440-61-1	µg/L	N	1/9/2007	2/6/2007	2	0	0	14	14	--	--	--	--	--	5	--	9.9	--
100-H Near-Shore Wells	Vanadium	7440-62-2	µg/L	N	11/8/2006	2/25/2011	70	29	41	7.0	17	4.0	58	22	20	B292Y7	100	--	12	20
100-H Near-Shore Wells	Vanadium	7440-62-2	µg/L	Y	11/8/2006	2/16/2011	65	26	40	5.9	17	7.1	51	20	16	B292Y6	100	--	12	19
100-H Aquifer Tubes	Vanadium	7440-62-2	µg/L	N	3/3/2009	3/3/2011	10	0	0	12	17	--	--	--	--	--	100	--	12	--

Table L-46. Comparison of Contaminants of Interest to Ecological Screening Levels for the 100-H Source Area

Site	Analyte	CAS#	Units	Filtered?	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Mean Detect	Median Detect	Max Detect Sample #	Surface Water Ecological Screening Level	No. of Detects > Surface Water Ecological Screening Level	Ground Water Background Level	No. of Detects > Ground Water Background Level
100-H Aquifer Tubes	Vanadium	7440-62-2	µg/L	Y	3/3/2009	3/3/2011	10	0	0	12	17	--	--	--	--	--	100	--	12	--
100-H-PORE-WATER	Vanadium	7440-62-2	µg/L	N	1/9/2007	2/4/2007	2	0	0	0.60	0.60	--	--	--	--	--	100	--	12	--
100-H-SEEP	Vanadium	7440-62-2	µg/L	N	9/5/1995	11/20/2003	7	2	29	9.7	9.7	3.6	6.0	4.8	4.8	B17VK5	100	--	12	--
100-H-SEEP	Vanadium	7440-62-2	µg/L	Y	10/27/2002	11/20/2003	6	0	0	5.0	9.7	--	--	--	--	--	100	--	12	--
100-H-SW	Vanadium	7440-62-2	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	1.0	1,200	362	220	B0G124	100	3	12	3
100-H Near-Shore Wells	Zinc	7440-66-6	µg/L	N	11/8/2006	2/25/2011	70	32	46	4.0	9.0	3.6	384	59	16	B284B2	90	7	22	13
100-H Near-Shore Wells	Zinc	7440-66-6	µg/L	Y	11/8/2006	2/16/2011	65	22	34	4.0	9.6	4.0	855	79	15	B21RX9	90	2	22	8
100-H Aquifer Tubes	Zinc	7440-66-6	µg/L	N	3/3/2009	3/3/2011	10	2	20	4.0	6.0	6.0	9.4	7.7	7.7	B1Y487	90	--	22	--
100-H Aquifer Tubes	Zinc	7440-66-6	µg/L	Y	3/3/2009	3/3/2011	10	0	0	4.0	9.0	--	--	--	--	--	90	--	22	--
100-H-SEEP	Zinc	7440-66-6	µg/L	N	8/25/1994	10/26/2004	16	16	100	--	--	1.8	282	28	5.2	B17RK5	90	1	22	3
100-H-SEEP	Zinc	7440-66-6	µg/L	Y	10/27/2002	10/26/2004	10	6	60	2.2	2.7	1.5	4.6	2.7	2.2	B15HX3	90	--	22	--
100-H-PORE-WATER	Zinc	7440-66-6	µg/L	N	1/9/2007	2/4/2007	2	2	100	--	--	2.2	2.3	2.3	2.3	J13VF0	90	--	22	--
100-H-SW	Zinc	7440-66-6	µg/L	N	9/28/1995	2/6/2007	5	5	100	--	--	2.1	7,500	1,799	510	B0G124	90	3	22	3

Table L-47. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-D-SOIL	1,2,4-Trichlorobenzene	120-82-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	1,2-Dichlorobenzene	95-50-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	1,3-Dichlorobenzene	541-73-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	1,4-Dichlorobenzene	106-46-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4,5-Trichlorophenol	95-95-4	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2,4,6-Trichlorophenol	88-06-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dichlorophenol	120-83-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dimethylphenol	105-67-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dinitrophenol	51-28-5	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2,4-Dinitrotoluene	121-14-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,6-Dinitrotoluene	606-20-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Chloronaphthalene	91-58-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Chlorophenol	95-57-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Nitroaniline	88-74-4	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2-Nitrophenol	88-75-5	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3,3'-Dichlorobenzidine	91-94-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3-Nitroaniline	99-09-2	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	11/21/2005	4/9/2006	15	5	33	0.0040	1.3	0.57	0.97	--	--	--	--
100-D-SOIL	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4-Bromophenylphenyl ether	101-55-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chloro-3-methylphenol	59-50-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chloroaniline	106-47-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Nitroaniline	100-01-6	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4-Nitrophenol	100-02-7	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	Aldrin	309-00-2	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Alpha-BHC	319-84-6	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Aluminum	7429-90-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	4.56E+06	8.65E+06	--	--	--	--
100-D-SOIL	Antimony-125	14234-35-6	pCi/g	6/30/1992	4/9/2006	9	0	0	-7.26E-03	0.24	--	--	--	--	--	--
100-D-SOIL	Barium-133	13981-41-4	pCi/g	4/9/2006	4/9/2006	5	0	0	0.069	0.11	--	--	--	--	--	--
100-D-SOIL	Beryllium-7	13966-02-4	pCi/g	6/30/1992	7/20/1998	4	2	50	0.036	0.091	0.10	0.27	--	--	--	--
100-D-SOIL	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bis(2-chloroethyl) ether	111-44-4	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bismuth	7440-69-9	µg/kg	11/21/2005	4/9/2006	15	0	0	750	933	--	--	--	--	--	--
100-D-SOIL	Bromide	24959-67-9	µg/kg	11/21/2005	11/28/2005	10	0	0	2,480	2,500	--	--	--	--	--	--
100-D-SOIL	Butylbenzylphthalate	85-68-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Calcium	7440-70-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3.52E+06	4.35E+06	--	--	--	--
100-D-SOIL	Calculated Total Uranium	calc_tot_U	µg/kg	7/20/1998	4/9/2006	16	16	100	--	--	346	2,855	--	--	--	--
100-D-SOIL	Carbazole	86-74-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Cerium/Praseodymium-144	CE/PR-144	pCi/g	6/30/1992	8/23/1994	3	0	0	0.026	0.11	--	--	--	--	--	--
100-D-SOIL	Cesium-134	13967-70-9	pCi/g	6/30/1992	4/9/2006	19	0	0	-1.54E-01	0.20	--	--	--	--	--	--
100-D-SOIL	Chloride	16887-00-6	µg/kg	11/21/2005	4/9/2006	13	13	100	--	--	2,150	26,100	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 100 screen	RET#100	%	11/21/2005	4/9/2006	3	3	100	--	--	93	96	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 16 screen	RET#16	%	11/21/2005	4/9/2006	3	3	100	--	--	8.3	25	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 200 screen	RET#200	%	11/21/2005	4/9/2006	3	3	100	--	--	98	99	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 30 screen	RET#30	%	11/21/2005	4/9/2006	3	3	100	--	--	42	65	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 50 screen	RET#50	%	11/21/2005	4/9/2006	3	3	100	--	--	75	90	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 8 screen	RET#8	%	11/21/2005	4/9/2006	3	3	100	--	--	--	7.3	--	--	--	--
100-D-SOIL	Delta-BHC	319-86-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Dibenzofuran	132-64-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Dieldrin	60-57-1	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Dimethyl phthalate	131-11-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Di-n-butylphthalate	84-74-2	µg/kg	11/21/2005	4/9/2006	15	5	33	330	330	17	26	--	--	--	--
100-D-SOIL	Di-n-octylphthalate	117-84-0	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Endosulfan I	959-98-8	µg/kg	11/21/2005	4/9/2006	15	5	33	0.0040	1.3	0.60	3.3	--	--	--	--
100-D-SOIL	Endosulfan II	33213-65-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Endosulfan sulfate	1031-07-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Endrin	72-20-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--

Table L-47. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-D-SOIL	Endrin aldehyde	7421-93-4	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Endrin ketone	53494-70-5	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Fluoride	16984-48-8	µg/kg	11/21/2005	4/9/2006	13	11	85	595	897	99	10,100	--	--	--	--
100-D-SOIL	Fraction Coarse Sand	COARSE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	26	40	--	--	--	--
100-D-SOIL	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	11/21/2005	4/9/2006	3	3	100	--	--	1.4	2.1	--	--	--	--
100-D-SOIL	Fraction Fine Sand	FINE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	5.8	18	--	--	--	--
100-D-SOIL	Fraction Granules [greater than 2.38 mm]	GRANULE	%	11/21/2005	4/9/2006	3	3	100	--	--	--	7.3	--	--	--	--
100-D-SOIL	Fraction Medium Sand	MEDIUM_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	25	42	--	--	--	--
100-D-SOIL	Fraction Total Sand	TOTAL_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	91	99	--	--	--	--
100-D-SOIL	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	11/21/2005	4/9/2006	3	3	100	--	--	8.3	19	--	--	--	--
100-D-SOIL	Fraction Very Fine Sand	VERY_FINE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	2.5	4.9	--	--	--	--
100-D-SOIL	Gamma-BHC (Lindane)	58-89-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Heptachlor	76-44-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Heptachlor epoxide	1024-57-3	µg/kg	11/21/2005	4/9/2006	15	1	6.7	0.0040	1.3	0.33	0.33	--	--	--	--
100-D-SOIL	Hexachlorobenzene	118-74-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachlorobutadiene	87-68-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachlorocyclopentadiene	77-47-4	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachloroethane	67-72-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexavalent Chromium	18540-29-9	µg/kg	11/21/2005	4/9/2006	15	8	53	200	780	244	801	--	--	--	--
100-D-SOIL	Iron	7439-89-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	1.91E+07	2.35E+07	--	--	--	--
100-D-SOIL	Isophorone	78-59-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Magnesium	7439-95-4	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3.44E+06	4.94E+06	--	--	--	--
100-D-SOIL	Methoxychlor	72-43-5	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Nematode lab CTL Survival	NEMA_CTL_SURV	%	11/21/2005	4/9/2006	3	3	100	--	--	90	93	--	--	--	--
100-D-SOIL	Nematode Survival	NEMA_SURV	%	11/21/2005	4/9/2006	3	3	100	--	--	57	83	--	--	--	--
100-D-SOIL	Nitrobenzene	98-95-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Nitrogen in ammonia	NH3-N	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	712	7,930	--	--	--	--
100-D-SOIL	Nitrogen in Nitrate	NO3-N	µg/kg	11/21/2005	4/9/2006	18	18	100	--	--	2,732	16,258	--	--	--	--
100-D-SOIL	Nitrogen in Nitrite	NO2-N	µg/kg	11/21/2005	4/9/2006	13	3	23	755	761	164	620	--	--	--	--
100-D-SOIL	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3,200	16,600	--	--	--	--
100-D-SOIL	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	408,000	1.02E+06	--	--	--	--
100-D-SOIL	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	n-Nitrosodiphenylamine	86-30-6	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Pentachlorophenol	87-86-5	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	Percent moisture (wet sample)	%MOISTURE	%	11/21/2005	4/9/2006	3	3	100	--	--	1.2	3.5	--	--	--	--
100-D-SOIL	pH Measurement	PH	unitless	11/21/2005	4/9/2006	3	3	100	--	--	7.2	7.3	--	--	--	--
100-D-SOIL	Phosphate	14265-44-2	µg/kg	11/21/2005	11/28/2005	10	0	0	2,480	2,500	--	--	--	--	--	--
100-D-SOIL	Phosphorus	7723-14-0	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	773,000	1.18E+06	--	--	--	--
100-D-SOIL	Potassium	7440-09-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	531,000	926,000	--	--	--	--
100-D-SOIL	Potassium-40	13966-00-2	pCi/g	6/30/1992	4/9/2006	19	16	84	13	15	5.8	14	--	--	--	--
100-D-SOIL	Ruthenium-106	13967-48-1	pCi/g	6/30/1992	7/20/1998	4	0	0	-1.02E-01	-1.85E-03	--	--	--	--	--	--
100-D-SOIL	Silicon	7440-21-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	144,000	454,000	--	--	--	--
100-D-SOIL	Sodium	7440-23-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	128,000	165,000	--	--	--	--
100-D-SOIL	Strontium	7440-24-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	20,000	26,400	--	--	--	--
100-D-SOIL	Sulfate	14808-79-8	µg/kg	11/21/2005	4/9/2006	13	13	100	--	--	4,580	24,400	--	--	--	--
100-D-SOIL	Thorium-228	14274-82-9	pCi/g	11/21/2005	4/9/2006	15	11	73	0.088	0.38	0.36	0.63	--	--	--	--
100-D-SOIL	Thorium-230	14269-63-7	pCi/g	11/21/2005	4/9/2006	15	7	47	0	0.26	0.24	0.53	--	--	--	--
100-D-SOIL	Total organic carbon	TOC	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	7.71E+06	1.17E+07	--	--	--	--
100-D-SOIL	Toxaphene	8001-35-2	µg/kg	11/21/2005	4/9/2006	15	0	0	0.040	13	--	--	--	--	--	--
100-D-SOIL	Uranium-234	13966-29-5	pCi/g	7/20/1998	4/9/2006	16	15	94	0.25	0.25	0.12	0.91	--	--	--	--
100-D-SOIL	Zinc-65	13982-39-3	pCi/g	6/30/1992	8/23/1994	3	0	0	-2.30E-01	0.014	--	--	--	--	--	--
100-D-SOIL	Zirconium/Niobium-95	ZR/NB-95	pCi/g	6/30/1992	8/23/1994	3	0	0	-6.30E-02	0.033	--	--	--	--	--	--

Table L-48. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-H-SOIL	1,2,4-Trichlorobenzene	120-82-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	1,2-Dichlorobenzene	95-50-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	1,3-Dichlorobenzene	541-73-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	1,4-Dichlorobenzene	106-46-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4,5-Trichlorophenol	95-95-4	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2,4,6-Trichlorophenol	88-06-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dichlorophenol	120-83-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dimethylphenol	105-67-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dinitrophenol	51-28-5	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2,4-Dinitrotoluene	121-14-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,6-Dinitrotoluene	606-20-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Chloronaphthalene	91-58-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Chlorophenol	95-57-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Nitroaniline	88-74-4	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2-Nitrophenol	88-75-5	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3,3'-Dichlorobenzidine	91-94-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3-Nitroaniline	99-09-2	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	3/28/2006	7/23/2007	21	4	19	1.3	1.3	0.53	2.7	--	--	--	--
100-H-SOIL	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	3/28/2006	7/23/2007	21	13	62	1.3	1.4	0.40	5.4	--	--	--	--
100-H-SOIL	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	3/28/2006	7/23/2007	21	8	38	1.3	1.4	0.77	13	--	--	--	--
100-H-SOIL	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4-Bromophenylphenyl ether	101-55-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chloro-3-methylphenol	59-50-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chloroaniline	106-47-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Nitroaniline	100-01-6	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4-Nitrophenol	100-02-7	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	Aldrin	309-00-2	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Alpha-BHC	319-84-6	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Aluminum	7429-90-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	7.32E+06	1.05E+07	--	--	--	--
100-H-SOIL	Antimony-125	14234-35-6	pCi/g	3/28/2006	4/5/2006	10	0	0	0.17	0.28	--	--	--	--	--	--
100-H-SOIL	Barium-133	13981-41-4	pCi/g	4/5/2006	4/5/2006	5	0	0	0.11	0.13	--	--	--	--	--	--
100-H-SOIL	Beryllium-7	13966-02-4	pCi/g	3/28/2006	3/28/2006	5	0	0	0.94	1.3	--	--	--	--	--	--
100-H-SOIL	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bis(2-chloroethyl) ether	111-44-4	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bismuth	7440-69-9	µg/kg	3/28/2006	7/23/2007	21	0	0	580	1,200	--	--	--	--	--	--
100-H-SOIL	Bluegrass 14-day germination	BG_14D_GERM	%	11/20/2006	7/23/2007	2	2	100	--	--	20	80	--	--	--	--
100-H-SOIL	Bluegrass average root biomass [dry]	BG_AVG_ROOT_MAS	mg	11/20/2006	7/23/2007	2	2	100	--	--	3.0	5.0	--	--	--	--
100-H-SOIL	Bluegrass average root length	BG_AVG_ROOT_LEN	mm	11/20/2006	7/23/2007	2	2	100	--	--	23	42	--	--	--	--
100-H-SOIL	Bluegrass average shoot biomass [dry]	BG_AVG_SHOOT_MA	mg	11/20/2006	7/23/2007	2	2	100	--	--	3.6	8.7	--	--	--	--
100-H-SOIL	Bluegrass average stem height	BG_AVG_STEM_HT	mm	11/20/2006	7/23/2007	2	2	100	--	--	43	73	--	--	--	--
100-H-SOIL	Butylbenzylphthalate	85-68-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Calcium	7440-70-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	3.85E+06	5.02E+06	--	--	--	--
100-H-SOIL	Calculated Total Uranium	calc_tot_U	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	964	2,969	--	--	--	--
100-H-SOIL	Carbazole	86-74-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Cesium-134	13967-70-9	pCi/g	3/28/2006	7/23/2007	21	0	0	0.080	0.18	--	--	--	--	--	--
100-H-SOIL	Chloride	16887-00-6	µg/kg	3/28/2006	7/23/2007	5	4	80	460	460	1,410	13,300	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 100 screen	RET#100	%	3/28/2006	7/23/2007	5	5	100	--	--	49	93	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 16 screen	RET#16	%	3/28/2006	7/23/2007	5	5	100	--	--	2.4	7.2	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 200 screen	RET#200	%	3/28/2006	7/23/2007	5	5	100	--	--	85	98	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 30 screen	RET#30	%	3/28/2006	7/23/2007	5	5	100	--	--	9.1	26	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 50 screen	RET#50	%	3/28/2006	7/23/2007	5	5	100	--	--	18	61	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 8 screen	RET#8	%	3/28/2006	7/23/2007	5	5	100	--	--	--	0.080	--	--	--	--
100-H-SOIL	Delta-BHC	319-86-8	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.4	0.90	0.90	--	--	--	--
100-H-SOIL	Dibenzofuran	132-64-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Dieldrin	60-57-1	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	7.1	7.1	--	--	--	--

Table L-48. Summary of Riparian Soil Analytes Without a Plant/Invertebrate Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-H-SOIL	Dimethyl phthalate	131-11-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Di-n-butylphthalate	84-74-2	µg/kg	3/28/2006	7/23/2007	21	17	81	330	660	18	61	--	--	--	--
100-H-SOIL	Di-n-octylphthalate	117-84-0	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Endosulfan I	959-98-8	µg/kg	3/28/2006	7/23/2007	21	6	29	1.3	1.4	0.40	6.8	--	--	--	--
100-H-SOIL	Endosulfan II	33213-65-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Endosulfan sulfate	1031-07-8	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	6.4	6.4	--	--	--	--
100-H-SOIL	Endrin	72-20-8	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Endrin aldehyde	7421-93-4	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	39	39	--	--	--	--
100-H-SOIL	Endrin ketone	53494-70-5	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Fluoride	16984-48-8	µg/kg	3/28/2006	7/23/2007	5	3	60	416	819	388	1,010	--	--	--	--
100-H-SOIL	Fraction Coarse Sand	COARSE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	6.8	19	--	--	--	--
100-H-SOIL	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	3/28/2006	7/23/2007	5	5	100	--	--	2.0	15	--	--	--	--
100-H-SOIL	Fraction Fine Sand	FINE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	26	34	--	--	--	--
100-H-SOIL	Fraction Granules [greater than 2.38 mm]	GRANULE	%	3/28/2006	7/23/2007	5	5	100	--	--	--	0.080	--	--	--	--
100-H-SOIL	Fraction Medium Sand	MEDIUM_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	9.0	48	--	--	--	--
100-H-SOIL	Fraction Total Sand	TOTAL_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	85	98	--	--	--	--
100-H-SOIL	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	3/28/2006	7/23/2007	5	5	100	--	--	2.4	7.2	--	--	--	--
100-H-SOIL	Fraction Very Fine Sand	VERY_FINE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	4.9	36	--	--	--	--
100-H-SOIL	Gamma-BHC (Lindane)	58-89-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Heptachlor	76-44-8	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Heptachlor epoxide	1024-57-3	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Hexachlorobenzene	118-74-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachlorobutadiene	87-68-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachlorocyclopentadiene	77-47-4	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachloroethane	67-72-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexavalent Chromium	18540-29-9	µg/kg	3/28/2006	7/23/2007	21	3	14	200	2,000	210	270	--	--	--	--
100-H-SOIL	Iron	7439-89-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	1.73E+07	2.12E+07	--	--	--	--
100-H-SOIL	Isophorone	78-59-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Magnesium	7439-95-4	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	4.22E+06	5.83E+06	--	--	--	--
100-H-SOIL	Methoxychlor	72-43-5	µg/kg	3/28/2006	7/23/2007	21	2	9.5	1.3	1.4	1.8	2.1	--	--	--	--
100-H-SOIL	Nematode lab CTL Survival	NEMA_CTL_SURV	%	3/28/2006	4/10/2006	3	3	100	--	--	90	93	--	--	--	--
100-H-SOIL	Nematode Survival	NEMA_SURV	%	3/28/2006	11/20/2006	4	4	100	--	--	47	80	--	--	--	--
100-H-SOIL	Nitrobenzene	98-95-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Nitrogen in ammonia	NH3-N	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	1,210	11,600	--	--	--	--
100-H-SOIL	Nitrogen in Nitrate	NO3-N	µg/kg	3/28/2006	7/23/2007	25	25	100	--	--	1,181	13,164	--	--	--	--
100-H-SOIL	Nitrogen in Nitrite	NO2-N	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	184	684	--	--	--	--
100-H-SOIL	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	1,100	15,200	--	--	--	--
100-H-SOIL	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	443,000	1.20E+06	--	--	--	--
100-H-SOIL	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	n-Nitrosodiphenylamine	86-30-6	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Pentachlorophenol	87-86-5	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	Percent moisture (wet sample)	%MOISTURE	%	3/28/2006	7/23/2007	5	5	100	--	--	0.78	3.7	--	--	--	--
100-H-SOIL	pH Measurement	PH	unitless	3/28/2006	7/23/2007	5	5	100	--	--	6.9	7.3	--	--	--	--
100-H-SOIL	Phosphorus	7723-14-0	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	652,000	956,000	--	--	--	--
100-H-SOIL	Potassium	7440-09-7	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	779,000	1.77E+06	--	--	--	--
100-H-SOIL	Potassium-40	13966-00-2	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	8.6	14	--	--	--	--
100-H-SOIL	Ruthenium-106	13967-48-1	pCi/g	3/28/2006	3/28/2006	5	0	0	0.69	0.85	--	--	--	--	--	--
100-H-SOIL	Silicon	7440-21-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	284,000	1.28E+06	--	--	--	--
100-H-SOIL	Sodium	7440-23-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	164,000	239,000	--	--	--	--
100-H-SOIL	Strontium	7440-24-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	23,500	33,700	--	--	--	--
100-H-SOIL	Sulfate	14808-79-8	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	3,030	73,000	--	--	--	--
100-H-SOIL	Thorium-228	14274-82-9	pCi/g	3/28/2006	7/23/2007	21	10	48	0.061	0.66	0.35	0.98	--	--	--	--
100-H-SOIL	Thorium-230	14269-63-7	pCi/g	3/28/2006	7/23/2007	21	6	29	0	0.43	0.31	0.79	--	--	--	--
100-H-SOIL	Total average root shoot mass [dry]	TOT_AVE_ROOT_SH	mg	11/20/2006	7/23/2007	2	2	100	--	--	8.6	12	--	--	--	--
100-H-SOIL	Total organic carbon	TOC	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	8.13E+06	1.65E+07	--	--	--	--
100-H-SOIL	Toxaphene	8001-35-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	--	--	--	--
100-H-SOIL	Uranium-234	13966-29-5	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.22	1.2	--	--	--	--

Table L-49. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-D-SOIL	1,2,4-Trichlorobenzene	120-82-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	1,4-Dichlorobenzene	106-46-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4,5-Trichlorophenol	95-95-4	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2,4,6-Trichlorophenol	88-06-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dichlorophenol	120-83-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dimethylphenol	105-67-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2,4-Dinitrophenol	51-28-5	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2,6-Dinitrotoluene	606-20-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Chloronaphthalene	91-58-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Chlorophenol	95-57-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	2-Nitroaniline	88-74-4	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	2-Nitrophenol	88-75-5	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3,3'-Dichlorobenzidine	91-94-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	3-Nitroaniline	99-09-2	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4-Bromophenylphenyl ether	101-55-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chloro-3-methylphenol	59-50-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chloroaniline	106-47-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	4-Nitroaniline	100-01-6	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	4-Nitrophenol	100-02-7	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	Alpha-BHC	319-84-6	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Antimony-125	14234-35-6	pCi/g	6/30/1992	4/9/2006	9	0	0	-7.26E-03	0.24	--	--	--	--	--	--
100-D-SOIL	Barium-133	13981-41-4	pCi/g	4/9/2006	4/9/2006	5	0	0	0.069	0.11	--	--	--	--	--	--
100-D-SOIL	Beryllium-7	13966-02-4	pCi/g	6/30/1992	7/20/1998	4	2	50	0.036	0.091	0.10	0.27	--	--	--	--
100-D-SOIL	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bis(2-chloroethyl) ether	111-44-4	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Bismuth	7440-69-9	µg/kg	11/21/2005	4/9/2006	15	0	0	750	933	--	--	--	--	--	--
100-D-SOIL	Bromide	24959-67-9	µg/kg	11/21/2005	11/28/2005	10	0	0	2,480	2,500	--	--	--	--	--	--
100-D-SOIL	Butylbenzylphthalate	85-68-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Calcium	7440-70-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3.52E+06	4.35E+06	--	--	--	--
100-D-SOIL	Calculated Total Uranium	calc_tot_U	µg/kg	7/20/1998	4/9/2006	16	16	100	--	--	346	2,855	--	--	--	--
100-D-SOIL	Carbazole	86-74-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Cerium/Praseodymium-144	CE/PR-144	pCi/g	6/30/1992	8/23/1994	3	0	0	0.026	0.11	--	--	--	--	--	--
100-D-SOIL	Cesium-134	13967-70-9	pCi/g	6/30/1992	4/9/2006	19	0	0	-1.54E-01	0.20	--	--	--	--	--	--
100-D-SOIL	Chloride	16887-00-6	µg/kg	11/21/2005	4/9/2006	13	13	100	--	--	2,150	26,100	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 100 screen	RET#100	%	11/21/2005	4/9/2006	3	3	100	--	--	93	96	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 16 screen	RET#16	%	11/21/2005	4/9/2006	3	3	100	--	--	8.3	25	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 200 screen	RET#200	%	11/21/2005	4/9/2006	3	3	100	--	--	98	99	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 30 screen	RET#30	%	11/21/2005	4/9/2006	3	3	100	--	--	42	65	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 50 screen	RET#50	%	11/21/2005	4/9/2006	3	3	100	--	--	75	90	--	--	--	--
100-D-SOIL	Cumulative % retained on No. 8 screen	RET#8	%	11/21/2005	4/9/2006	3	3	100	--	--	--	7.3	--	--	--	--
100-D-SOIL	Delta-BHC	319-86-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Dibenzofuran	132-64-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Diethylphthalate	84-66-2	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	23	23	--	--	--	--
100-D-SOIL	Dimethyl phthalate	131-11-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Di-n-butylphthalate	84-74-2	µg/kg	11/21/2005	4/9/2006	15	5	33	330	330	17	26	--	--	--	--
100-D-SOIL	Di-n-octylphthalate	117-84-0	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Endrin	72-20-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--

Table L-49. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-D-SOIL	Endrin ketone	53494-70-5	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Fraction Coarse Sand	COARSE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	26	40	--	--	--	--
100-D-SOIL	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	11/21/2005	4/9/2006	3	3	100	--	--	1.4	2.1	--	--	--	--
100-D-SOIL	Fraction Fine Sand	FINE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	5.8	18	--	--	--	--
100-D-SOIL	Fraction Granules [greater than 2.38 mm]	GRANULE	%	11/21/2005	4/9/2006	3	3	100	--	--	--	7.3	--	--	--	--
100-D-SOIL	Fraction Medium Sand	MEDIUM_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	25	42	--	--	--	--
100-D-SOIL	Fraction Total Sand	TOTAL_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	91	99	--	--	--	--
100-D-SOIL	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	11/21/2005	4/9/2006	3	3	100	--	--	8.3	19	--	--	--	--
100-D-SOIL	Fraction Very Fine Sand	VERY_FINE_SAND	%	11/21/2005	4/9/2006	3	3	100	--	--	2.5	4.9	--	--	--	--
100-D-SOIL	Gamma-BHC (Lindane)	58-89-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Heptachlor	76-44-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	--	--
100-D-SOIL	Heptachlor epoxide	1024-57-3	µg/kg	11/21/2005	4/9/2006	15	1	6.7	0.0040	1.3	0.33	0.33	--	--	--	--
100-D-SOIL	Hexachlorobenzene	118-74-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachlorobutadiene	87-68-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachlorocyclopentadiene	77-47-4	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Hexachloroethane	67-72-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Iron	7439-89-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	1.91E+07	2.35E+07	--	--	--	--
100-D-SOIL	Isophorone	78-59-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Magnesium	7439-95-4	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3.44E+06	4.94E+06	--	--	--	--
100-D-SOIL	Nematode lab CTL Survival	NEMA_CTL_SURV	%	11/21/2005	4/9/2006	3	3	100	--	--	90	93	--	--	--	--
100-D-SOIL	Nematode Survival	NEMA_SURV	%	11/21/2005	4/9/2006	3	3	100	--	--	57	83	--	--	--	--
100-D-SOIL	Nitrobenzene	98-95-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Nitrogen in ammonia	NH3-N	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	712	7,930	--	--	--	--
100-D-SOIL	Nitrogen in Nitrate	NO3-N	µg/kg	11/21/2005	4/9/2006	18	18	100	--	--	2,732	16,258	--	--	--	--
100-D-SOIL	Nitrogen in Nitrite	NO2-N	µg/kg	11/21/2005	4/9/2006	13	3	23	755	761	164	620	--	--	--	--
100-D-SOIL	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	3,200	16,600	--	--	--	--
100-D-SOIL	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	408,000	1.02E+06	--	--	--	--
100-D-SOIL	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	n-Nitrosodiphenylamine	86-30-6	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	--	--
100-D-SOIL	Pentachlorophenol	87-86-5	µg/kg	11/21/2005	4/9/2006	15	0	0	830	830	--	--	--	--	--	--
100-D-SOIL	Percent moisture (wet sample)	%MOISTURE	%	11/21/2005	4/9/2006	3	3	100	--	--	1.2	3.5	--	--	--	--
100-D-SOIL	pH Measurement	PH	unitless	11/21/2005	4/9/2006	3	3	100	--	--	7.2	7.3	--	--	--	--
100-D-SOIL	Phosphate	14265-44-2	µg/kg	11/21/2005	11/28/2005	10	0	0	2,480	2,500	--	--	--	--	--	--
100-D-SOIL	Phosphorus	7723-14-0	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	773,000	1.18E+06	--	--	--	--
100-D-SOIL	Potassium	7440-09-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	531,000	926,000	--	--	--	--
100-D-SOIL	Potassium-40	13966-00-2	pCi/g	6/30/1992	4/9/2006	19	16	84	13	15	5.8	14	--	--	--	--
100-D-SOIL	Ruthenium-106	13967-48-1	pCi/g	6/30/1992	7/20/1998	4	0	0	-1.02E-01	-1.85E-03	--	--	--	--	--	--
100-D-SOIL	Silicon	7440-21-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	144,000	454,000	--	--	--	--
100-D-SOIL	Sodium	7440-23-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	128,000	165,000	--	--	--	--
100-D-SOIL	Sulfate	14808-79-8	µg/kg	11/21/2005	4/9/2006	13	13	100	--	--	4,580	24,400	--	--	--	--
100-D-SOIL	Thorium-228	14274-82-9	pCi/g	11/21/2005	4/9/2006	15	11	73	0.088	0.38	0.36	0.63	--	--	--	--
100-D-SOIL	Thorium-230	14269-63-7	pCi/g	11/21/2005	4/9/2006	15	7	47	--	0.26	0.24	0.53	--	--	--	--
100-D-SOIL	Total organic carbon	TOC	µg/kg	11/21/2005	4/9/2006	3	3	100	--	--	7.71E+06	1.17E+07	--	--	--	--
100-D-SOIL	Toxaphene	8001-35-2	µg/kg	11/21/2005	4/9/2006	15	0	0	0.040	13	--	--	--	--	--	--
100-D-SOIL	Uranium-234	13966-29-5	pCi/g	7/20/1998	4/9/2006	16	15	94	0.25	0.25	0.12	0.91	--	--	--	--
100-D-SOIL	Zinc-65	13982-39-3	pCi/g	6/30/1992	8/23/1994	3	0	0	-2.30E-01	0.014	--	--	--	--	--	--
100-D-SOIL	Zirconium/Niobium-95	ZR/NB-95	pCi/g	6/30/1992	8/23/1994	3	0	0	-6.30E-02	0.033	--	--	--	--	--	--

Table L-50. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-H-SOIL	1,2,4-Trichlorobenzene	120-82-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	1,4-Dichlorobenzene	106-46-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4,5-Trichlorophenol	95-95-4	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2,4,6-Trichlorophenol	88-06-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dichlorophenol	120-83-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dimethylphenol	105-67-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2,4-Dinitrophenol	51-28-5	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2,6-Dinitrotoluene	606-20-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Chloronaphthalene	91-58-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Chlorophenol	95-57-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	2-Nitroaniline	88-74-4	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	2-Nitrophenol	88-75-5	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3,3'-Dichlorobenzidine	91-94-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	3-Nitroaniline	99-09-2	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	3/28/2006	7/23/2007	21	4	19	1.3	1.3	0.53	2.7	--	--	--	--
100-H-SOIL	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4-Bromophenylphenyl ether	101-55-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chloro-3-methylphenol	59-50-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chloroaniline	106-47-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	4-Nitroaniline	100-01-6	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	4-Nitrophenol	100-02-7	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	Alpha-BHC	319-84-6	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Antimony-125	14234-35-6	pCi/g	3/28/2006	4/5/2006	10	0	0	0.17	0.28	--	--	--	--	--	--
100-H-SOIL	Barium-133	13981-41-4	pCi/g	4/5/2006	4/5/2006	5	0	0	0.11	0.13	--	--	--	--	--	--
100-H-SOIL	Beryllium-7	13966-02-4	pCi/g	3/28/2006	3/28/2006	5	0	0	0.94	1.3	--	--	--	--	--	--
100-H-SOIL	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bis(2-chloroethyl) ether	111-44-4	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Bismuth	7440-69-9	µg/kg	3/28/2006	7/23/2007	21	0	0	580	1,200	--	--	--	--	--	--
100-H-SOIL	Bluegrass 14-day germination	BG_14D_GERM	%	11/20/2006	7/23/2007	2	2	100	--	--	20	80	--	--	--	--
100-H-SOIL	Bluegrass average root biomass [dry]	BG_AVG_ROOT_MAS	mg	11/20/2006	7/23/2007	2	2	100	--	--	3.0	5.0	--	--	--	--
100-H-SOIL	Bluegrass average root length	BG_AVG_ROOT_LEN	mm	11/20/2006	7/23/2007	2	2	100	--	--	23	42	--	--	--	--
100-H-SOIL	Bluegrass average shoot biomass [dry]	BG_AVG_SHOOT_MA	mg	11/20/2006	7/23/2007	2	2	100	--	--	3.6	8.7	--	--	--	--
100-H-SOIL	Bluegrass average stem height	BG_AVG_STEM_HT	mm	11/20/2006	7/23/2007	2	2	100	--	--	43	73	--	--	--	--
100-H-SOIL	Butylbenzylphthalate	85-68-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Calcium	7440-70-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	3.85E+06	5.02E+06	--	--	--	--
100-H-SOIL	Calculated Total Uranium	calc_tot_U	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	964	2,969	--	--	--	--
100-H-SOIL	Carbazole	86-74-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Cesium-134	13967-70-9	pCi/g	3/28/2006	7/23/2007	21	0	0	0.080	0.18	--	--	--	--	--	--
100-H-SOIL	Chloride	16887-00-6	µg/kg	3/28/2006	7/23/2007	5	4	80	460	460	1,410	13,300	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 100 screen	RET#100	%	3/28/2006	7/23/2007	5	5	100	--	--	49	93	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 16 screen	RET#16	%	3/28/2006	7/23/2007	5	5	100	--	--	2.4	7.2	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 200 screen	RET#200	%	3/28/2006	7/23/2007	5	5	100	--	--	85	98	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 30 screen	RET#30	%	3/28/2006	7/23/2007	5	5	100	--	--	9.1	26	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 50 screen	RET#50	%	3/28/2006	7/23/2007	5	5	100	--	--	18	61	--	--	--	--
100-H-SOIL	Cumulative % retained on No. 8 screen	RET#8	%	3/28/2006	7/23/2007	5	5	100	--	--	--	0.080	--	--	--	--
100-H-SOIL	Delta-BHC	319-86-8	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.4	0.90	0.90	--	--	--	--
100-H-SOIL	Dibenzofuran	132-64-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Diethylphthalate	84-66-2	µg/kg	3/28/2006	7/23/2007	21	4	19	330	660	23	44	--	--	--	--
100-H-SOIL	Dimethyl phthalate	131-11-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Di-n-butylphthalate	84-74-2	µg/kg	3/28/2006	7/23/2007	21	17	81	330	660	18	61	--	--	--	--
100-H-SOIL	Di-n-octylphthalate	117-84-0	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Endrin	72-20-8	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Endrin ketone	53494-70-5	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Fraction Coarse Sand	COARSE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	6.8	19	--	--	--	--
100-H-SOIL	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	3/28/2006	7/23/2007	5	5	100	--	--	2.0	15	--	--	--	--
100-H-SOIL	Fraction Fine Sand	FINE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	26	34	--	--	--	--

Table L-50. Summary of Riparian Soil Analytes Without a Wildlife Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-H-SOIL	Fraction Granules [greater than 2.38 mm]	GRANULE	%	3/28/2006	7/23/2007	5	5	100	--	--	--	0.080	--	--	--	--
100-H-SOIL	Fraction Medium Sand	MEDIUM_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	9.0	48	--	--	--	--
100-H-SOIL	Fraction Total Sand	TOTAL_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	85	98	--	--	--	--
100-H-SOIL	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	3/28/2006	7/23/2007	5	5	100	--	--	2.4	7.2	--	--	--	--
100-H-SOIL	Fraction Very Fine Sand	VERY_FINE_SAND	%	3/28/2006	7/23/2007	5	5	100	--	--	4.9	36	--	--	--	--
100-H-SOIL	Gamma-BHC (Lindane)	58-89-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Heptachlor	76-44-8	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Heptachlor epoxide	1024-57-3	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	--	--
100-H-SOIL	Hexachlorobenzene	118-74-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachlorobutadiene	87-68-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachlorocyclopentadiene	77-47-4	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Hexachloroethane	67-72-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Iron	7439-89-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	1.73E+07	2.12E+07	--	--	--	--
100-H-SOIL	Isophorone	78-59-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Magnesium	7439-95-4	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	4.22E+06	5.83E+06	--	--	--	--
100-H-SOIL	Nematode lab CTL Survival	NEMA_CTL_SURV	%	3/28/2006	4/10/2006	3	3	100	--	--	90	93	--	--	--	--
100-H-SOIL	Nematode Survival	NEMA_SURV	%	3/28/2006	11/20/2006	4	4	100	--	--	47	80	--	--	--	--
100-H-SOIL	Nitrobenzene	98-95-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Nitrogen in ammonia	NH3-N	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	1,210	11,600	--	--	--	--
100-H-SOIL	Nitrogen in Nitrate	NO3-N	µg/kg	3/28/2006	7/23/2007	25	25	100	--	--	1,181	13,164	--	--	--	--
100-H-SOIL	Nitrogen in Nitrite	NO2-N	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	184	684	--	--	--	--
100-H-SOIL	Nitrogen in Nitrite and Nitrate	NO2+NO3-N	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	1,100	15,200	--	--	--	--
100-H-SOIL	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	443,000	1.20E+06	--	--	--	--
100-H-SOIL	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	n-Nitrosodiphenylamine	86-30-6	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	--	--
100-H-SOIL	Pentachlorophenol	87-86-5	µg/kg	3/28/2006	7/23/2007	21	0	0	830	1,700	--	--	--	--	--	--
100-H-SOIL	Percent moisture (wet sample)	%MOISTURE	%	3/28/2006	7/23/2007	5	5	100	--	--	0.78	3.7	--	--	--	--
100-H-SOIL	pH Measurement	PH	unitless	3/28/2006	7/23/2007	5	5	100	--	--	6.9	7.3	--	--	--	--
100-H-SOIL	Phosphorus	7723-14-0	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	652,000	956,000	--	--	--	--
100-H-SOIL	Potassium	7440-09-7	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	779,000	1.77E+06	--	--	--	--
100-H-SOIL	Potassium-40	13966-00-2	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	8.6	14	--	--	--	--
100-H-SOIL	Ruthenium-106	13967-48-1	pCi/g	3/28/2006	3/28/2006	5	0	0	0.69	0.85	--	--	--	--	--	--
100-H-SOIL	Silicon	7440-21-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	284,000	1.28E+06	--	--	--	--
100-H-SOIL	Sodium	7440-23-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	164,000	239,000	--	--	--	--
100-H-SOIL	Sulfate	14808-79-8	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	3,030	73,000	--	--	--	--
100-H-SOIL	Thorium-228	14274-82-9	pCi/g	3/28/2006	7/23/2007	21	10	48	0.061	0.66	0.35	0.98	--	--	--	--
100-H-SOIL	Thorium-230	14269-63-7	pCi/g	3/28/2006	7/23/2007	21	6	29	--	0.43	0.31	0.79	--	--	--	--
100-H-SOIL	Total average root shoot mass [dry]	TOT_AVE_ROOT_SH	mg	11/20/2006	7/23/2007	2	2	100	--	--	8.6	12	--	--	--	--
100-H-SOIL	Total organic carbon	TOC	µg/kg	3/28/2006	7/23/2007	5	5	100	--	--	8.13E+06	1.65E+07	--	--	--	--
100-H-SOIL	Toxaphene	8001-35-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	--	--	--	--
100-H-SOIL	Uranium-234	13966-29-5	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.22	1.2	--	--	--	--

Table L-51. Summary of Riparian Soil Analytes With Plant/Invertebrate Ecological Screening Levels That Were Not Detected for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-D-SOIL	2-Methylnaphthalene	91-57-6	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	Acenaphthene	83-32-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	20,000	--	29,000	--
100-D-SOIL	Acenaphthylene	208-96-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	Alpha-Chlordane	5103-71-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	1,000	--
100-D-SOIL	Americium-241	14596-10-2	pCi/g	11/21/2005	4/9/2006	15	0	0	0.13	0.55	--	--	21,500	--	--	--
100-D-SOIL	Anthracene	120-12-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	Aroclor-1016	12674-11-2	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Aroclor-1221	11104-28-2	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Aroclor-1232	11141-16-5	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Aroclor-1242	53469-21-9	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Aroclor-1248	12672-29-6	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Aroclor-1260	11096-82-5	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	40,000	--	--	--
100-D-SOIL	Benzo(a)pyrene	50-32-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Benzo(b)fluoranthene	205-99-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Benzo(ghi)perylene	191-24-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Benzo(k)fluoranthene	207-08-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Dibenz[a,h]anthracene	53-70-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Europium-152	14683-23-9	pCi/g	11/21/2005	4/9/2006	15	0	0	0.18	0.50	--	--	14,700	--	--	--
100-D-SOIL	Europium-154	15585-10-1	pCi/g	6/30/1992	4/9/2006	19	0	0	-5.82E-02	0.51	--	--	12,500	--	--	--
100-D-SOIL	Europium-155	14391-16-3	pCi/g	6/30/1992	4/9/2006	19	0	0	-8.55E-03	0.36	--	--	153,000	--	--	--
100-D-SOIL	Fluoranthene	206-44-0	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Fluorene	86-73-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	gamma-Chlordane	5566-34-7	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	1,000	--
100-D-SOIL	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	18,000	--
100-D-SOIL	Naphthalene	91-20-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	Phenanthrene	85-01-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	29,000	--
100-D-SOIL	Silver	7440-22-4	µg/kg	11/21/2005	4/9/2006	15	0	0	100	214	--	--	560,000	--	2,990	--
100-D-SOIL	Uranium	7440-61-1	µg/kg	11/21/2005	4/9/2006	15	0	0	1,300	3,150	--	--	250,000	--	100,000	--

Table L-52. Summary of Riparian Soil Analytes With Plant/Invertebrate Ecological Screening Levels That Were Not Detected for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-H-SOIL	2-Methylnaphthalene	91-57-6	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	29,000	--
100-H-SOIL	Acenaphthene	83-32-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	20,000	--	29,000	--
100-H-SOIL	Acenaphthylene	208-96-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	29,000	--
100-H-SOIL	Alpha-Chlordane	5103-71-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	--	--	1,000	--
100-H-SOIL	Americium-241	14596-10-2	pCi/g	3/28/2006	7/23/2007	16	0	0	0.090	0.44	--	--	21,500	--	--	--
100-H-SOIL	Aroclor-1016	12674-11-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Aroclor-1221	11104-28-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Aroclor-1232	11141-16-5	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Aroclor-1242	53469-21-9	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Aroclor-1248	12672-29-6	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Aroclor-1254	11097-69-1	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	40,000	--	--	--
100-H-SOIL	Cobalt-60	10198-40-0	pCi/g	3/28/2006	7/23/2007	21	0	0	0.064	0.14	--	--	6,130	--	--	--
100-H-SOIL	Europium-154	15585-10-1	pCi/g	3/28/2006	7/23/2007	21	0	0	0.23	0.44	--	--	12,500	--	--	--
100-H-SOIL	Europium-155	14391-16-3	pCi/g	3/28/2006	7/23/2007	21	0	0	0.12	0.37	--	--	153,000	--	--	--
100-H-SOIL	Fluorene	86-73-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	29,000	--
100-H-SOIL	Naphthalene	91-20-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	29,000	--
100-H-SOIL	Thallium	7440-28-0	µg/kg	3/28/2006	7/23/2007	21	0	0	810	2,400	--	--	1,000	--	459	--

Table L-53. Summary of Riparian Soil Analytes With Wildlife Ecological Screening Levels That Were Not Detected for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-D-SOIL	1,2-Dichlorobenzene	95-50-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	164,000	--	282,000	--
100-D-SOIL	1,3-Dichlorobenzene	541-73-1	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	164,000	--	310,000	--
100-D-SOIL	2,4-Dinitrotoluene	121-14-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	26,400	--	28,100	--
100-D-SOIL	2-Methylnaphthalene	91-57-6	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	8,370	--	6,010	--
100-D-SOIL	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	--	--	9.29E+06	--
100-D-SOIL	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	1,190	--	882	--
100-D-SOIL	Acenaphthene	83-32-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1.10E+06	--	2.42E+06	--
100-D-SOIL	Acenaphthylene	208-96-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	73,600	--	156,000	--
100-D-SOIL	Aldrin	309-00-2	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	164	--	9,820	--
100-D-SOIL	Alpha-Chlordane	5103-71-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	50,400	--	205,000	--
100-D-SOIL	Americium-241	14596-10-2	pCi/g	11/21/2005	4/9/2006	15	0	0	0.13	0.55	--	--	11,900	--	4,840	--
100-D-SOIL	Anthracene	120-12-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	678,000	--	4.21E+06	--
100-D-SOIL	Aroclor-1016	12674-11-2	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	4,850	--
100-D-SOIL	Aroclor-1221	11104-28-2	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	1,470	--
100-D-SOIL	Aroclor-1232	11141-16-5	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	1,440	--
100-D-SOIL	Aroclor-1242	53469-21-9	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	1,490	--
100-D-SOIL	Aroclor-1248	12672-29-6	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	325	--
100-D-SOIL	Aroclor-1260	11096-82-5	µg/kg	11/21/2005	4/9/2006	15	0	0	13	13	--	--	1,820	--	1,470	--
100-D-SOIL	Benzo(a)pyrene	50-32-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	2,410	--	76,400	--
100-D-SOIL	Benzo(b)fluoranthene	205-99-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,270	--	39,200	--
100-D-SOIL	Benzo(ghi)perylene	191-24-2	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,120	--	32,400	--
100-D-SOIL	Benzo(k)fluoranthene	207-08-9	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,270	--	39,200	--
100-D-SOIL	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	4,080	--	8,670	--
100-D-SOIL	Dibenz[a,h]anthracene	53-70-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,420	--	44,100	--
100-D-SOIL	Dieldrin	60-57-1	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	79	--	21	--
100-D-SOIL	Endosulfan II	33213-65-9	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	41,400	--	710	--
100-D-SOIL	Endosulfan sulfate	1031-07-8	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	41,400	--	560	--
100-D-SOIL	Endrin aldehyde	7421-93-4	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	231	--	1,360	--
100-D-SOIL	Europium-152	14683-23-9	pCi/g	11/21/2005	4/9/2006	15	0	0	0.18	0.50	--	--	1,740	--	1,740	--
100-D-SOIL	Europium-154	15585-10-1	pCi/g	6/30/1992	4/9/2006	19	0	0	-5.82E-02	0.51	--	--	1,610	--	1,610	--
100-D-SOIL	Europium-155	14391-16-3	pCi/g	6/30/1992	4/9/2006	19	0	0	-8.55E-03	0.36	--	--	33,400	--	33,400	--
100-D-SOIL	Fluoranthene	206-44-0	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,090	--	839,000	--
100-D-SOIL	Fluorene	86-73-7	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	175,000	--	267,000	--
100-D-SOIL	gamma-Chlordane	5566-34-7	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	50,200	--	204,000	--
100-D-SOIL	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	1,150	--	35,700	--
100-D-SOIL	Methoxychlor	72-43-5	µg/kg	11/21/2005	4/9/2006	15	0	0	0.0040	1.3	--	--	--	--	21,800	--
100-D-SOIL	Naphthalene	91-20-3	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	340,000	--	100,000	--
100-D-SOIL	Phenanthrene	85-01-8	µg/kg	11/21/2005	4/9/2006	15	0	0	330	330	--	--	943,000	--	5.92E+06	--
100-D-SOIL	Silver	7440-22-4	µg/kg	11/21/2005	4/9/2006	15	0	0	100	214	--	--	983,000	--	9.81E+06	--
100-D-SOIL	Uranium	7440-61-1	µg/kg	11/21/2005	4/9/2006	15	0	0	1,300	3,150	--	--	82,000	--	40,000	--

Table L-54. Summary of Riparian Soil Analytes With Wildlife Ecological Screening Levels That Were Not Detected for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-H-SOIL	1,2-Dichlorobenzene	95-50-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	164,000	--	282,000	--
100-H-SOIL	1,3-Dichlorobenzene	541-73-1	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	164,000	--	310,000	--
100-H-SOIL	2,4-Dinitrotoluene	121-14-2	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	26,400	--	28,100	--
100-H-SOIL	2-Methylnaphthalene	91-57-6	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	8,370	--	6,010	--
100-H-SOIL	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	--	--	9.29E+06	--
100-H-SOIL	Acenaphthene	83-32-9	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	1.10E+06	--	2.42E+06	--
100-H-SOIL	Acenaphthylene	208-96-8	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	73,600	--	156,000	--
100-H-SOIL	Aldrin	309-00-2	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	164	--	9,820	--
100-H-SOIL	Alpha-Chlordane	5103-71-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	50,400	--	205,000	--
100-H-SOIL	Americium-241	14596-10-2	pCi/g	3/28/2006	7/23/2007	16	0	0	0.090	0.44	--	--	11,900	--	4,840	--
100-H-SOIL	Aroclor-1016	12674-11-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	4,850	--
100-H-SOIL	Aroclor-1221	11104-28-2	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	1,470	--
100-H-SOIL	Aroclor-1232	11141-16-5	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	1,440	--
100-H-SOIL	Aroclor-1242	53469-21-9	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	1,490	--
100-H-SOIL	Aroclor-1248	12672-29-6	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	325	--
100-H-SOIL	Aroclor-1254	11097-69-1	µg/kg	3/28/2006	7/23/2007	21	0	0	13	14	--	--	1,820	--	1,470	--
100-H-SOIL	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	4,080	--	8,670	--
100-H-SOIL	Cobalt-60	10198-40-0	pCi/g	3/28/2006	7/23/2007	21	0	0	0.064	0.14	--	--	805	--	805	--
100-H-SOIL	Endosulfan II	33213-65-9	µg/kg	3/28/2006	7/23/2007	21	0	0	1.3	1.4	--	--	41,400	--	710	--
100-H-SOIL	Europium-154	15585-10-1	pCi/g	3/28/2006	7/23/2007	21	0	0	0.23	0.44	--	--	1,610	--	1,610	--
100-H-SOIL	Europium-155	14391-16-3	pCi/g	3/28/2006	7/23/2007	21	0	0	0.12	0.37	--	--	33,400	--	33,400	--
100-H-SOIL	Fluorene	86-73-7	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	175,000	--	267,000	--
100-H-SOIL	Naphthalene	91-20-3	µg/kg	3/28/2006	7/23/2007	21	0	0	330	660	--	--	340,000	--	100,000	--
100-H-SOIL	Thallium	7440-28-0	µg/kg	3/28/2006	7/23/2007	21	0	0	810	2,400	--	--	--	--	6,200	--

Table L-55. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-D-SOIL	Antimony	7440-36-0	µg/kg	11/21/2005	4/9/2006	15	1	6.7	589	650	806	806	842,000	--	842,000	--
100-D-SOIL	Aroclor-1254	11097-69-1	µg/kg	11/21/2005	4/9/2006	15	1	6.7	13	13	6.9	6.9	40,000	--	--	--
100-D-SOIL	Arsenic	7440-38-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	2,600	6,800	128,000	--	128,000	--
100-D-SOIL	Barium	7440-39-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	69,800	105,000	500,000	--	358,000	--
100-D-SOIL	Benzo(a)anthracene	56-55-3	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	17	17	--	--	18,000	--
100-D-SOIL	Beryllium	7440-41-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	312	810	10,000	--	40,000	--
100-D-SOIL	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	26	121	100,000	--	--	--
100-D-SOIL	Boron	7440-42-8	µg/kg	11/21/2005	4/9/2006	15	13	87	350	360	380	1,700	29,600	--	58,000	--
100-D-SOIL	Cadmium	7440-43-9	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	350	902	9,840	--	20,000	--
100-D-SOIL	Cesium-137	10045-97-3	pCi/g	6/30/1992	4/9/2006	19	9	47	0.11	0.24	0.099	0.76	2,210	--	--	--
100-D-SOIL	Chromium	7440-47-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	12,600	51,600	259,000	--	149,000	--
100-D-SOIL	Chrysene	218-01-9	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	17	17	--	--	18,000	--
100-D-SOIL	Cobalt	7440-48-4	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	5,600	7,800	15,700	--	15,700	--
100-D-SOIL	Cobalt-60	10198-40-0	pCi/g	6/30/1992	4/9/2006	19	2	11	-1.53E-02	0.20	0.0100	0.025	6,130	--	--	--
100-D-SOIL	Copper	7440-50-8	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	17,600	28,900	70,000	--	58,000	--
100-D-SOIL	Diethylphthalate	84-66-2	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	23	23	100,000	--	--	--
100-D-SOIL	Lead	7439-92-1	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	13,300	40,600	9.09E+06	--	1.70E+06	--
100-D-SOIL	Lithium	7439-93-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	4,800	11,100	35,000	--	--	--
100-D-SOIL	Manganese	7439-96-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	259,000	381,000	1.26E+06	--	1.26E+06	--
100-D-SOIL	Mercury	7439-97-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	21	139	300	--	12,500	--
100-D-SOIL	Molybdenum	7439-98-7	µg/kg	11/21/2005	4/9/2006	15	11	73	197	430	230	880	2,000	--	28,000	--
100-D-SOIL	Nickel	7440-02-0	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	11,400	17,700	38,000	--	280,000	--
100-D-SOIL	Phenol	108-95-2	µg/kg	11/21/2005	4/9/2006	15	5	33	330	330	18	31	70,000	--	30,000	--
100-D-SOIL	Plutonium-238	13981-16-3	pCi/g	6/30/1992	7/20/1998	4	3	75	2.51E-04	2.51E-04	1.07E-04	5.58E-04	17,500	--	--	--
100-D-SOIL	Plutonium-239/240	PU-239/240	pCi/g	6/30/1992	7/20/1998	4	4	100	--	--	0.0035	0.013	12,700	--	--	--
100-D-SOIL	Pyrene	129-00-0	µg/kg	11/21/2005	4/9/2006	15	3	20	330	330	17	28	--	--	18,000	--
100-D-SOIL	Radium-226	13982-63-3	pCi/g	7/20/1998	4/9/2006	16	15	94	0.86	0.86	0.31	0.86	288	--	--	--
100-D-SOIL	Radium-228	15262-20-1	pCi/g	7/20/1998	4/9/2006	16	14	88	0.72	1.3	0.47	1.6	245	--	--	--
100-D-SOIL	Selenium	7782-49-2	µg/kg	11/21/2005	4/9/2006	15	1	6.7	530	700	670	670	2,020	--	4,100	--
100-D-SOIL	Strontium-90	10098-97-2	pCi/g	6/30/1992	4/9/2006	19	4	21	-8.50E-02	0.12	0.053	0.087	3,580	--	--	--
100-D-SOIL	Thorium-232	TH-232	pCi/g	11/21/2005	4/9/2006	15	10	67	0.11	0.38	0.32	0.74	23,500	--	--	--
100-D-SOIL	Tin	7440-31-5	µg/kg	11/21/2005	4/9/2006	15	11	73	766	1,600	850	5,800	838,000	--	838,000	--
100-D-SOIL	Uranium-235	15117-96-1	pCi/g	6/30/1992	4/9/2006	19	2	11	-3.22E-02	0.097	0.13	0.18	27,400	--	--	--
100-D-SOIL	Uranium-238	U-238	pCi/g	7/20/1998	4/9/2006	16	14	88	0.20	0.22	0.12	0.95	15,700	--	--	--
100-D-SOIL	Vanadium	7440-62-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	41,900	60,100	89,400	--	116,000	--
100-D-SOIL	Zinc	7440-66-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	118,000	219,000	621,000	--	8.98E+06	--

Table L-56. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-H-SOIL	Anthracene	120-12-7	µg/kg	3/28/2006	7/23/2007	21	1	4.8	330	660	31	31	--	--	29,000	--
100-H-SOIL	Antimony	7440-36-0	µg/kg	3/28/2006	7/23/2007	21	3	14	370	670	430	480	842,000	--	842,000	--
100-H-SOIL	Aroclor-1260	11096-82-5	µg/kg	3/28/2006	7/23/2007	21	5	24	13	14	2.1	6.3	40,000	--	--	--
100-H-SOIL	Arsenic	7440-38-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	4,800	13,200	128,000	--	128,000	--
100-H-SOIL	Barium	7440-39-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	64,700	97,500	500,000	--	358,000	--
100-H-SOIL	Benzo(a)anthracene	56-55-3	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	19	320	--	--	18,000	--
100-H-SOIL	Benzo(a)pyrene	50-32-8	µg/kg	3/28/2006	7/23/2007	21	6	29	330	660	19	230	--	--	18,000	--
100-H-SOIL	Benzo(b)fluoranthene	205-99-2	µg/kg	3/28/2006	7/23/2007	21	6	29	330	660	17	220	--	--	18,000	--
100-H-SOIL	Benzo(ghi)perylene	191-24-2	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	18	140	--	--	18,000	--
100-H-SOIL	Benzo(k)fluoranthene	207-08-9	µg/kg	3/28/2006	7/23/2007	21	5	24	330	660	18	230	--	--	18,000	--
100-H-SOIL	Beryllium	7440-41-7	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	180	460	10,000	--	40,000	--
100-H-SOIL	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	3/28/2006	7/23/2007	21	20	95	660	660	20	180	100,000	--	--	--
100-H-SOIL	Boron	7440-42-8	µg/kg	3/28/2006	7/23/2007	21	20	95	360	360	540	2,500	29,600	--	58,000	--
100-H-SOIL	Cadmium	7440-43-9	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	630	2,700	9,840	--	20,000	--
100-H-SOIL	Cesium-137	10045-97-3	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.10	0.63	2,210	--	--	--
100-H-SOIL	Chromium	7440-47-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	16,800	29,800	259,000	--	149,000	--
100-H-SOIL	Chrysene	218-01-9	µg/kg	3/28/2006	7/23/2007	21	7	33	330	660	17	350	--	--	18,000	--
100-H-SOIL	Cobalt	7440-48-4	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	5,800	7,800	15,700	--	15,700	--
100-H-SOIL	Copper	7440-50-8	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	21,800	42,100	70,000	--	58,000	--
100-H-SOIL	Dibenz[a,h]anthracene	53-70-3	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	17	70	--	--	18,000	--
100-H-SOIL	Diethylphthalate	84-66-2	µg/kg	3/28/2006	7/23/2007	21	4	19	330	660	23	44	100,000	--	--	--
100-H-SOIL	Europium-152	14683-23-9	pCi/g	3/28/2006	7/23/2007	21	5	24	0.16	0.28	0.24	0.42	14,700	--	--	--
100-H-SOIL	Fluoranthene	206-44-0	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	36	540	--	--	18,000	--
100-H-SOIL	gamma-Chlordane	5566-34-7	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	2.0	2.0	--	--	1,000	--
100-H-SOIL	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	17	140	--	--	18,000	--
100-H-SOIL	Lead	7439-92-1	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	30,200	87,200	9.09E+06	--	1.70E+06	--
100-H-SOIL	Lithium	7439-93-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	8,500	12,800	35,000	--	--	--
100-H-SOIL	Manganese	7439-96-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	204,000	338,000	1.26E+06	--	1.26E+06	--
100-H-SOIL	Mercury	7439-97-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	27	83	300	--	12,500	--
100-H-SOIL	Molybdenum	7439-98-7	µg/kg	3/28/2006	7/23/2007	21	17	81	430	490	430	760	2,000	--	28,000	--
100-H-SOIL	Nickel	7440-02-0	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	14,100	19,800	38,000	--	280,000	--
100-H-SOIL	Phenanthrene	85-01-8	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	23	130	--	--	29,000	--
100-H-SOIL	Phenol	108-95-2	µg/kg	3/28/2006	7/23/2007	21	8	38	330	660	18	84	70,000	--	30,000	--
100-H-SOIL	Pyrene	129-00-0	µg/kg	3/28/2006	7/23/2007	21	7	33	330	660	17	440	--	--	18,000	--
100-H-SOIL	Radium-226	13982-63-3	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.40	0.98	288	--	--	--
100-H-SOIL	Radium-228	15262-20-1	pCi/g	3/28/2006	7/23/2007	21	18	86	0.62	0.93	0.54	1.4	245	--	--	--
100-H-SOIL	Selenium	7782-49-2	µg/kg	3/28/2006	7/23/2007	21	1	4.8	630	1,300	860	860	2,020	--	4,100	--
100-H-SOIL	Silver	7440-22-4	µg/kg	3/28/2006	7/23/2007	21	5	24	70	270	120	200	560,000	--	2,990	--
100-H-SOIL	Strontium-90	10098-97-2	pCi/g	3/28/2006	7/23/2007	21	1	4.8	-3.40E-01	0.16	0.36	0.36	3,580	--	--	--
100-H-SOIL	Thorium-232	TH-232	pCi/g	3/28/2006	7/23/2007	21	12	57	0.11	0.68	0.39	0.84	23,500	--	--	--
100-H-SOIL	Tin	7440-31-5	µg/kg	3/28/2006	7/23/2007	21	10	48	1,600	1,900	1,600	10,200	838,000	--	838,000	--
100-H-SOIL	Uranium	7440-61-1	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1,300	4,400	2,200	2,200	250,000	--	100,000	--
100-H-SOIL	Uranium-235	15117-96-1	pCi/g	3/28/2006	7/23/2007	21	1	4.8	0	0.12	0.039	0.039	27,400	--	--	--
100-H-SOIL	Uranium-238	U-238	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.32	0.99	15,700	--	--	--
100-H-SOIL	Vanadium	7440-62-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	33,900	55,000	89,400	--	116,000	--
100-H-SOIL	Zinc	7440-66-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	161,000	416,000	621,000	--	8.98E+06	--

Table L-57. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-D-SOIL	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	11/21/2005	4/9/2006	15	5	33	0.0040	1.3	0.57	0.97	800	--	400	--
100-D-SOIL	Antimony	7440-36-0	µg/kg	11/21/2005	4/9/2006	15	1	6.7	589	650	806	806	--	--	146,000	--
100-D-SOIL	Aroclor-1254	11097-69-1	µg/kg	11/21/2005	4/9/2006	15	1	6.7	13	13	6.9	6.9	1,820	--	1,470	--
100-D-SOIL	Arsenic	7440-38-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	2,600	6,800	2.28E+06	--	127,000	--
100-D-SOIL	Barium	7440-39-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	69,800	105,000	1.69E+06	--	2.27E+06	--
100-D-SOIL	Benzo(a)anthracene	56-55-3	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	17	17	2,030	--	64,000	--
100-D-SOIL	Beryllium	7440-41-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	312	810	--	--	18,000	--
100-D-SOIL	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	26	121	140	--	45,400	--
100-D-SOIL	Boron	7440-42-8	µg/kg	11/21/2005	4/9/2006	15	13	87	350	360	380	1,700	91,000	--	91,000	--
100-D-SOIL	Cadmium	7440-43-9	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	350	902	29,000	--	624,000	--
100-D-SOIL	Cesium-137	10045-97-3	pCi/g	6/30/1992	4/9/2006	19	9	47	0.11	0.24	0.099	0.76	1,430	--	924	--
100-D-SOIL	Chromium	7440-47-3	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	12,600	51,600	109,000	--	517,000	--
100-D-SOIL	Chrysene	218-01-9	µg/kg	11/21/2005	4/9/2006	15	1	6.7	330	330	17	17	1,430	--	44,500	--
100-D-SOIL	Cobalt	7440-48-4	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	5,600	7,800	484,000	--	2.14E+06	--
100-D-SOIL	Cobalt-60	10198-40-0	pCi/g	6/30/1992	4/9/2006	19	2	11	-1.53E-02	0.20	0.0100	0.025	805	--	805	--
100-D-SOIL	Copper	7440-50-8	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	17,600	28,900	213,000	--	579,000	--
100-D-SOIL	Endosulfan I	959-98-8	µg/kg	11/21/2005	4/9/2006	15	5	33	0.0040	1.3	0.60	3.3	41,400	--	710	--
100-D-SOIL	Fluoride	16984-48-8	µg/kg	11/21/2005	4/9/2006	13	11	85	595	897	99	10,100	2.28E+06	--	1.38E+07	--
100-D-SOIL	Hexavalent Chromium	18540-29-9	µg/kg	11/21/2005	4/9/2006	15	8	53	200	780	244	801	--	--	1.25E+06	--
100-D-SOIL	Lead	7439-92-1	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	13,300	40,600	156,000	--	1.58E+06	--
100-D-SOIL	Lithium	7439-93-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	4,800	11,100	--	--	1.66E+06	--
100-D-SOIL	Manganese	7439-96-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	259,000	381,000	1.44E+07	--	3.32E+06	--
100-D-SOIL	Mercury	7439-97-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	21	139	2,000	--	1,600	--
100-D-SOIL	Molybdenum	7439-98-7	µg/kg	11/21/2005	4/9/2006	15	11	73	197	430	230	880	95,000	--	5,700	--
100-D-SOIL	Nickel	7440-02-0	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	11,400	17,700	361,000	--	247,000	--
100-D-SOIL	Phenol	108-95-2	µg/kg	11/21/2005	4/9/2006	15	5	33	330	330	18	31	--	--	1.51E+06	--
100-D-SOIL	Plutonium-238	13981-16-3	pCi/g	6/30/1992	7/20/1998	4	3	75	2.51E-04	2.51E-04	1.07E-04	5.58E-04	20,900	--	5,980	--
100-D-SOIL	Plutonium-239/240	PU-239/240	pCi/g	6/30/1992	7/20/1998	4	4	100	--	--	0.0035	0.013	22,300	--	6,270	--
100-D-SOIL	Pyrene	129-00-0	µg/kg	11/21/2005	4/9/2006	15	3	20	330	330	17	28	1,860	--	600,000	--
100-D-SOIL	Radium-226	13982-63-3	pCi/g	7/20/1998	4/9/2006	16	15	94	0.86	0.86	0.31	0.86	58	--	165	--
100-D-SOIL	Radium-228	15262-20-1	pCi/g	7/20/1998	4/9/2006	16	14	88	0.72	1.3	0.47	1.6	55	--	165	--
100-D-SOIL	Selenium	7782-49-2	µg/kg	11/21/2005	4/9/2006	15	1	6.7	530	700	670	670	2,400	--	1,400	--
100-D-SOIL	Strontium	7440-24-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	20,000	26,400	--	--	1.21E+06	--
100-D-SOIL	Strontium-90	10098-97-2	pCi/g	6/30/1992	4/9/2006	19	4	21	-8.50E-02	0.12	0.053	0.087	112	--	91	--
100-D-SOIL	Thallium	7440-28-0	µg/kg	11/21/2005	4/9/2006	15	2	13	943	1,000	988	1,100	--	--	6,200	--
100-D-SOIL	Thorium-232	TH-232	pCi/g	11/21/2005	4/9/2006	15	10	67	0.11	0.38	0.32	0.74	5,070	--	4,560	--
100-D-SOIL	Tin	7440-31-5	µg/kg	11/21/2005	4/9/2006	15	11	73	766	1,600	850	5,800	84,000	--	130,000	--
100-D-SOIL	Uranium-235	15117-96-1	pCi/g	6/30/1992	4/9/2006	19	2	11	-3.22E-02	0.097	0.13	0.18	4,360	--	8,060	--
100-D-SOIL	Uranium-238	U-238	pCi/g	7/20/1998	4/9/2006	16	14	88	0.20	0.22	0.12	0.95	5,150	--	11,000	--
100-D-SOIL	Zinc	7440-66-6	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	118,000	219,000	856,000	--	1.04E+06	--

Table L-58. Summary of Riparian Soil Analytes That Do Not Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-H-SOIL	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	3/28/2006	7/23/2007	21	13	62	1.3	1.4	0.40	5.4	800	--	400	--
100-H-SOIL	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	3/28/2006	7/23/2007	21	8	38	1.3	1.4	0.77	13	1,190	--	882	--
100-H-SOIL	Anthracene	120-12-7	µg/kg	3/28/2006	7/23/2007	21	1	4.8	330	660	31	31	678,000	--	4.21E+06	--
100-H-SOIL	Antimony	7440-36-0	µg/kg	3/28/2006	7/23/2007	21	3	14	370	670	430	480	--	--	146,000	--
100-H-SOIL	Aroclor-1260	11096-82-5	µg/kg	3/28/2006	7/23/2007	21	5	24	13	14	2.1	6.3	1,820	--	1,470	--
100-H-SOIL	Arsenic	7440-38-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	4,800	13,200	2.28E+06	--	127,000	--
100-H-SOIL	Barium	7440-39-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	64,700	97,500	1.69E+06	--	2.27E+06	--
100-H-SOIL	Benzo(a)anthracene	56-55-3	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	19	320	2,030	--	64,000	--
100-H-SOIL	Benzo(a)pyrene	50-32-8	µg/kg	3/28/2006	7/23/2007	21	6	29	330	660	19	230	2,410	--	76,400	--
100-H-SOIL	Benzo(b)fluoranthene	205-99-2	µg/kg	3/28/2006	7/23/2007	21	6	29	330	660	17	220	1,270	--	39,200	--
100-H-SOIL	Benzo(ghi)perylene	191-24-2	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	18	140	1,120	--	32,400	--
100-H-SOIL	Benzo(k)fluoranthene	207-08-9	µg/kg	3/28/2006	7/23/2007	21	5	24	330	660	18	230	1,270	--	39,200	--
100-H-SOIL	Beryllium	7440-41-7	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	180	460	--	--	18,000	--
100-H-SOIL	Boron	7440-42-8	µg/kg	3/28/2006	7/23/2007	21	20	95	360	360	540	2,500	91,000	--	91,000	--
100-H-SOIL	Cadmium	7440-43-9	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	630	2,700	29,000	--	624,000	--
100-H-SOIL	Cesium-137	10045-97-3	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.10	0.63	1,430	--	924	--
100-H-SOIL	Chromium	7440-47-3	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	16,800	29,800	109,000	--	517,000	--
100-H-SOIL	Chrysene	218-01-9	µg/kg	3/28/2006	7/23/2007	21	7	33	330	660	17	350	1,430	--	44,500	--
100-H-SOIL	Cobalt	7440-48-4	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	5,800	7,800	484,000	--	2.14E+06	--
100-H-SOIL	Copper	7440-50-8	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	21,800	42,100	213,000	--	579,000	--
100-H-SOIL	Dibenz[a,h]anthracene	53-70-3	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	17	70	1,420	--	44,100	--
100-H-SOIL	Dieldrin	60-57-1	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	7.1	7.1	79	--	21	--
100-H-SOIL	Endosulfan I	959-98-8	µg/kg	3/28/2006	7/23/2007	21	6	29	1.3	1.4	0.40	6.8	41,400	--	710	--
100-H-SOIL	Endosulfan sulfate	1031-07-8	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	6.4	6.4	41,400	--	560	--
100-H-SOIL	Endrin aldehyde	7421-93-4	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	39	39	231	--	1,360	--
100-H-SOIL	Europium-152	14683-23-9	pCi/g	3/28/2006	7/23/2007	21	5	24	0.16	0.28	0.24	0.42	1,740	--	1,740	--
100-H-SOIL	Fluoranthene	206-44-0	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	36	540	1,090	--	839,000	--
100-H-SOIL	Fluoride	16984-48-8	µg/kg	3/28/2006	7/23/2007	5	3	60	416	819	388	1,010	2.28E+06	--	1.38E+07	--
100-H-SOIL	gamma-Chlordane	5566-34-7	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1.3	1.3	2.0	2.0	50,200	--	204,000	--
100-H-SOIL	Hexavalent Chromium	18540-29-9	µg/kg	3/28/2006	7/23/2007	21	3	14	200	2,000	210	270	--	--	1.25E+06	--
100-H-SOIL	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	3/28/2006	7/23/2007	21	3	14	330	660	17	140	1,150	--	35,700	--
100-H-SOIL	Lead	7439-92-1	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	30,200	87,200	156,000	--	1.58E+06	--
100-H-SOIL	Lithium	7439-93-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	8,500	12,800	--	--	1.66E+06	--
100-H-SOIL	Manganese	7439-96-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	204,000	338,000	1.44E+07	--	3.32E+06	--
100-H-SOIL	Mercury	7439-97-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	27	83	2,000	--	1,600	--
100-H-SOIL	Methoxychlor	72-43-5	µg/kg	3/28/2006	7/23/2007	21	2	9.5	1.3	1.4	1.8	2.1	--	--	21,800	--
100-H-SOIL	Molybdenum	7439-98-7	µg/kg	3/28/2006	7/23/2007	21	17	81	430	490	430	760	95,000	--	5,700	--
100-H-SOIL	Nickel	7440-02-0	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	14,100	19,800	361,000	--	247,000	--
100-H-SOIL	Phenanthrene	85-01-8	µg/kg	3/28/2006	7/23/2007	21	2	9.5	330	660	23	130	943,000	--	5.92E+06	--
100-H-SOIL	Phenol	108-95-2	µg/kg	3/28/2006	7/23/2007	21	8	38	330	660	18	84	--	--	1.51E+06	--
100-H-SOIL	Pyrene	129-00-0	µg/kg	3/28/2006	7/23/2007	21	7	33	330	660	17	440	1,860	--	600,000	--
100-H-SOIL	Radium-226	13982-63-3	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.40	0.98	58	--	165	--
100-H-SOIL	Radium-228	15262-20-1	pCi/g	3/28/2006	7/23/2007	21	18	86	0.62	0.93	0.54	1.4	55	--	165	--
100-H-SOIL	Selenium	7782-49-2	µg/kg	3/28/2006	7/23/2007	21	1	4.8	630	1,300	860	860	2,400	--	1,400	--
100-H-SOIL	Silver	7440-22-4	µg/kg	3/28/2006	7/23/2007	21	5	24	70	270	120	200	983,000	--	9.81E+06	--
100-H-SOIL	Strontium	7440-24-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	23,500	33,700	--	--	1.21E+06	--
100-H-SOIL	Strontium-90	10098-97-2	pCi/g	3/28/2006	7/23/2007	21	1	4.8	-3.40E-01	0.16	0.36	0.36	112	--	91	--
100-H-SOIL	Thorium-232	TH-232	pCi/g	3/28/2006	7/23/2007	21	12	57	0.11	0.68	0.39	0.84	5,070	--	4,560	--
100-H-SOIL	Tin	7440-31-5	µg/kg	3/28/2006	7/23/2007	21	10	48	1,600	1,900	1,600	10,200	84,000	--	130,000	--
100-H-SOIL	Uranium	7440-61-1	µg/kg	3/28/2006	7/23/2007	21	1	4.8	1,300	4,400	2,200	2,200	82,000	--	22,000	--
100-H-SOIL	Uranium-235	15117-96-1	pCi/g	3/28/2006	7/23/2007	21	1	4.8	--	0.12	0.039	0.039	4,360	--	8,060	--
100-H-SOIL	Uranium-238	U-238	pCi/g	3/28/2006	7/23/2007	21	21	100	--	--	0.32	0.99	5,150	--	11,000	--
100-H-SOIL	Zinc	7440-66-6	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	161,000	416,000	856,000	--	1.04E+06	--

Table L-59. Summary of Riparian Soil Analytes That Exceed the Lowest Generic Plant/Invertebrate Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Plant ESL	No. of Detects > Plant ESL	Invertebrate ESL	No. of Detects > Invertebrate ESL
100-D-SOIL	Thallium	7440-28-0	µg/kg	11/21/2005	4/9/2006	15	2	13	943	1,000	988	1,100	1,000	1	459	2

Table L-60. Summary of Riparian Soil Analytes that Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-D-SOIL	Aluminum	7429-90-5	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	4.56E+06	8.65E+06	7.21E+06	5	3.99E+06	15
100-D-SOIL	Vanadium	7440-62-2	µg/kg	11/21/2005	4/9/2006	15	15	100	--	--	41,900	60,100	43,000	11	260,000	--

Table L-61. Summary of Riparian Soil Analytes that Exceed the Lowest Generic Avian/Mammal Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Avian ESL	No. of Detects > Avian ESL	Mammal ESL	No. of Detects > Mammal ESL
100-H-SOIL	Aluminum	7429-90-5	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	7.32E+06	1.05E+07	7.21E+06	21	3.99E+06	21
100-H-SOIL	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	3/28/2006	7/23/2007	21	20	95	660	660	20	180	140	2	45,400	--
100-H-SOIL	Vanadium	7440-62-2	µg/kg	3/28/2006	7/23/2007	21	21	100	--	--	33,900	55,000	43,000	8	260,000	--

Table L-62. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	1,2-Dichlorobenzene	95-50-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	1,3-Dichlorobenzene	541-73-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	1,4-Dichlorobenzene	106-46-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2,4-Dichlorophenol	120-83-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2,4-Dimethylphenol	105-67-9	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2,4-Dinitrophenol	51-28-5	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	2,4-Dinitrotoluene	121-14-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2,6-Dinitrotoluene	606-20-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2-Chloronaphthalene	91-58-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	2-Nitroaniline	88-74-4	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	2-Nitrophenol	88-75-5	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	3,3'-Dichlorobenzidine	91-94-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	3-Nitroaniline	99-09-2	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	4-Bromophenylphenyl ether	101-55-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	4-Chloro-3-methylphenol	59-50-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	4-Chloroaniline	106-47-8	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	4-Nitroaniline	100-01-6	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	4-Nitrophenol	100-02-7	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	--	--
100-D-SEDIMENT	Aroclor-1221	11104-28-2	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	--	--
100-D-SEDIMENT	Aroclor-1232	11141-16-5	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	--	--
100-D-SEDIMENT	Aroclor-1242	53469-21-9	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	--	--
100-D-SEDIMENT	Beryllium	7440-41-7	µg/kg	11/17/1992	9/27/2007	18	14	78	50	100	90	780	--	--
100-D-SEDIMENT	Beryllium-7	13966-02-4	pCi/g	2/12/2006	2/21/2006	6	0	0	0.10	0.29	--	--	--	--
100-D-SEDIMENT	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Bis(2-chloroethyl) ether	111-44-4	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Bismuth	7440-69-9	µg/kg	2/12/2006	9/27/2007	12	0	0	520	1,200	--	--	--	--
100-D-SEDIMENT	Boron	7440-42-8	µg/kg	2/12/2006	9/27/2007	12	7	58	980	1,100	420	1,600	--	--
100-D-SEDIMENT	Calcium	7440-70-2	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	2.53E+06	9.12E+06	--	--
100-D-SEDIMENT	Chloride	16887-00-6	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	276	6,670	--	--
100-D-SEDIMENT	Cumulative % retained on No. 100 screen	RET#100	%	2/12/2006	9/27/2007	12	12	100	--	--	63	98	--	--
100-D-SEDIMENT	Cumulative % retained on No. 16 screen	RET#16	%	2/12/2006	9/27/2007	12	12	100	--	--	0.94	70	--	--
100-D-SEDIMENT	Cumulative % retained on No. 200 screen	RET#200	%	2/12/2006	9/27/2007	12	12	100	--	--	89	99	--	--
100-D-SEDIMENT	Cumulative % retained on No. 30 screen	RET#30	%	2/12/2006	9/27/2007	12	12	100	--	--	5.8	78	--	--
100-D-SEDIMENT	Cumulative % retained on No. 50 screen	RET#50	%	2/12/2006	9/27/2007	12	12	100	--	--	33	95	--	--
100-D-SEDIMENT	Cumulative % retained on No. 8 screen	RET#8	%	2/12/2006	9/27/2007	12	12	100	--	--	--	64	--	--
100-D-SEDIMENT	Dissolved oxygen	DO	µg/L	2/12/2006	2/12/2006	1	1	100	--	--	12,270	12,270	--	--
100-D-SEDIMENT	Dominant Substrate Class [1-4]	AQ_BASKET_DOM_S	class	7/27/2006	7/27/2006	1	1	100	--	--	2.0	2.0	--	--
100-D-SEDIMENT	Fluoride	16984-48-8	µg/kg	2/12/2006	9/27/2007	12	1	8.3	253	1,190	308	308	--	--
100-D-SEDIMENT	Fraction Coarse Sand	COARSE_SAND	%	2/12/2006	9/27/2007	12	12	100	--	--	4.8	39	--	--
100-D-SEDIMENT	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	2/12/2006	9/27/2007	12	12	100	--	--	0.66	11	--	--
100-D-SEDIMENT	Fraction Fine Sand	FINE_SAND	%	2/12/2006	9/27/2007	12	12	100	--	--	3.6	52	--	--
100-D-SEDIMENT	Fraction Granules [greater than 2.38 mm]	GRANULE	%	2/12/2006	9/27/2007	12	12	100	--	--	--	64	--	--
100-D-SEDIMENT	Fraction Medium Sand	MEDIUM_SAND	%	2/12/2006	9/27/2007	12	12	100	--	--	17	46	--	--
100-D-SEDIMENT	Fraction Total Sand	TOTAL_SAND	%	2/12/2006	9/27/2007	12	12	100	--	--	35	99	--	--
100-D-SEDIMENT	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	2/12/2006	9/27/2007	12	12	100	--	--	0.67	22	--	--
100-D-SEDIMENT	Fraction Very Fine Sand	VERY_FINE_SAND	%	2/12/2006	9/27/2007	12	12	100	--	--	0.85	26	--	--
100-D-SEDIMENT	Gross alpha	12587-46-1	pCi/g	11/17/1992	11/24/1992	5	4	80	6.1	6.1	4.9	6.2	--	--
100-D-SEDIMENT	Gross beta	12587-47-2	pCi/g	11/17/1992	9/18/1995	7	7	100	--	--	9.0	20	--	--
100-D-SEDIMENT	Hexachlorobutadiene	87-68-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Hexachlorocyclopentadiene	77-47-4	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Hexavalent Chromium	18540-29-9	µg/kg	2/12/2006	9/25/2007	10	1	10	50	350	920	920	--	--
100-D-SEDIMENT	Hyalella CTL Growth	HYAL_CTL_GROWTH	mg	2/12/2006	2/21/2006	7	7	100	--	--	0.16	0.18	--	--
100-D-SEDIMENT	Hyalella CTL Survival	HYAL_CTL_SURV	%	2/12/2006	2/21/2006	7	7	100	--	--	92	96	--	--
100-D-SEDIMENT	Hyalella Growth	HYAL_GROWTH	mg	2/12/2006	2/21/2006	7	7	100	--	--	0.070	0.15	--	--

Table L-62. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-D Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	Hyalella Survival	HYAL_SURV	%	2/12/2006	2/21/2006	7	7	100	--	--	4.0	66	--	--
100-D-SEDIMENT	Iron-59	14596-12-4	pCi/g	11/17/1992	11/24/1992	5	0	0	0.054	0.30	--	--	--	--
100-D-SEDIMENT	Isophorone	78-59-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Lithium	7439-93-2	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	2,400	8,800	--	--
100-D-SEDIMENT	Macrophyte Abundance Class [1-4]	AQ_BASKET_MACRO	class	7/27/2006	7/27/2006	1	1	100	--	--	1.0	1.0	--	--
100-D-SEDIMENT	Magnesium	7439-95-4	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	2.82E+06	4.59E+06	--	--
100-D-SEDIMENT	Nitrobenzene	98-95-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Nitrogen in ammonia	NH3-N	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	447	5,790	--	--
100-D-SEDIMENT	Nitrogen in Nitrate	NO3-N	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	536	26,300	--	--
100-D-SEDIMENT	Nitrogen in Nitrite	NO2-N	µg/kg	2/12/2006	9/27/2007	12	7	58	253	906	119	1,160	--	--
100-D-SEDIMENT	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	266,000	1.19E+06	--	--
100-D-SEDIMENT	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	n-Nitrosodiphenylamine	86-30-6	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	--	--
100-D-SEDIMENT	Pakchoi CTL Shoot Wt. Wet	PAK_CTL_SHOOT_W	g	2/12/2006	2/12/2006	4	4	100	--	--	5.8	5.8	--	--
100-D-SEDIMENT	Pakchoi shoot weight, dry	PAK_SHOOT_WT_DR	g	2/12/2006	2/12/2006	4	4	100	--	--	0.17	0.46	--	--
100-D-SEDIMENT	Pakchoi shoot weight, wet	PAK_SHOOT_WT_WE	g	2/12/2006	2/12/2006	4	4	100	--	--	3.4	9.3	--	--
100-D-SEDIMENT	Percent moisture (wet sample)	%MOISTURE	%	2/12/2006	9/27/2007	12	12	100	--	--	1.2	24	--	--
100-D-SEDIMENT	pH Measurement	PH	pH units	2/12/2006	9/27/2007	13	13	100	--	--	6.6	8.2	--	--
100-D-SEDIMENT	Potassium	7440-09-7	µg/kg	11/19/1992	9/27/2007	16	16	100	--	--	255,000	1.50E+06	--	--
100-D-SEDIMENT	Ruthenium-106	13967-48-1	pCi/g	11/17/1992	2/21/2006	11	0	0	0.093	0.50	--	--	--	--
100-D-SEDIMENT	Silicon	7440-21-3	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	310,000	2.90E+06	--	--
100-D-SEDIMENT	Sodium	7440-23-5	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	81,900	299,000	--	--
100-D-SEDIMENT	Specific Conductance	CONDUCT	µS/cm	2/12/2006	2/12/2006	1	1	100	--	--	159	159	--	--
100-D-SEDIMENT	Strontium	7440-24-6	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	15,900	29,700	--	--
100-D-SEDIMENT	Sub Dominant Substrate Class [1-4]	AQ_BASKET_SUB_D	class	7/27/2006	7/27/2006	1	1	100	--	--	2.0	2.0	--	--
100-D-SEDIMENT	Substrate Embeddedness Class [1-4]	AQ_BASKET_EMBED	class	7/27/2006	7/27/2006	1	1	100	--	--	2.0	2.0	--	--
100-D-SEDIMENT	Sulfate	14808-79-8	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	1,290	17,800	--	--
100-D-SEDIMENT	Temperature	TEMPERATURE	deg C	2/12/2006	2/12/2006	1	1	100	--	--	4.5	4.5	--	--
100-D-SEDIMENT	Total organic carbon	TOC	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	458,000	2.59E+07	--	--
100-D-SEDIMENT	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/kg	2/12/2006	2/21/2006	6	0	0	30	36	--	--	--	--

Table L-63. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the Horn Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Sediment ESL	No. of Detects > Sediment ESL
100-HORN-AREA-SEDIMENT	Beryllium	7440-41-7	µg/kg	11/19/1992	11/23/1992	2	0	0	100	180	--	--	--	--
100-HORN-AREA-SEDIMENT	Calcium	7440-70-2	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	4.26E+06	5.07E+06	--	--
100-HORN-AREA-SEDIMENT	Gross alpha	12587-46-1	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	7.7	8.7	--	--
100-HORN-AREA-SEDIMENT	Gross beta	12587-47-2	pCi/g	11/17/1992	11/23/1992	3	3	100	--	--	12	31	--	--
100-HORN-AREA-SEDIMENT	Iron-59	14596-12-4	pCi/g	11/19/1992	11/23/1992	2	0	0	0.40	0.60	--	--	--	--
100-HORN-AREA-SEDIMENT	Magnesium	7439-95-4	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	3.87E+06	4.64E+06	--	--
100-HORN-AREA-SEDIMENT	Manganese-54	13966-31-9	pCi/g	11/19/1992	11/19/1992	1	1	100	--	--	0.057	0.057	--	--
100-HORN-AREA-SEDIMENT	Potassium	7440-09-7	µg/kg	11/17/1992	11/23/1992	3	3	100	--	--	614,000	993,000	--	--
100-HORN-AREA-SEDIMENT	Ruthenium-106	13967-48-1	pCi/g	11/19/1992	11/23/1992	2	0	0	0.50	0.70	--	--	--	--
100-HORN-AREA-SEDIMENT	Sodium	7440-23-5	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	224,000	364,000	--	--

Table L-64. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	1,2-Dichlorobenzene	95-50-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	1,3-Dichlorobenzene	541-73-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	1,4-Dichlorobenzene	106-46-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2,4-Dichlorophenol	120-83-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2,4-Dimethylphenol	105-67-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2,4-Dinitrophenol	51-28-5	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	2,4-Dinitrotoluene	121-14-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2,6-Dinitrotoluene	606-20-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2-Chloronaphthalene	91-58-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	2-Nitroaniline	88-74-4	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	2-Nitrophenol	88-75-5	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	3,3'-Dichlorobenzidine	91-94-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	3-Nitroaniline	99-09-2	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	4-Bromophenylphenyl ether	101-55-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	4-Chloro-3-methylphenol	59-50-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	4-Chloroaniline	106-47-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	4-Chlorophenylphenyl ether	7005-72-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	4-Nitroaniline	100-01-6	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	4-Nitrophenol	100-02-7	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	--	--
100-H-SEDIMENT	Aroclor-1221	11104-28-2	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	--	--
100-H-SEDIMENT	Aroclor-1232	11141-16-5	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	--	--
100-H-SEDIMENT	Aroclor-1242	53469-21-9	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	--	--
100-H-SEDIMENT	Beryllium	7440-41-7	µg/kg	11/13/1992	12/27/2006	4	2	50	5.0	100	390	420	--	--
100-H-SEDIMENT	Beryllium-7	13966-02-4	pCi/g	10/27/2003	12/27/2006	2	0	0	0.022	0.17	--	--	--	--
100-H-SEDIMENT	Bis(2-chloro-1-methylethyl)ether	108-60-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Bis(2-Chloroethoxy)methane	111-91-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Bis(2-chloroethyl) ether	111-44-4	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Bismuth	7440-69-9	µg/kg	12/27/2006	12/27/2006	1	0	0	1,300	1,300	--	--	--	--
100-H-SEDIMENT	Boron	7440-42-8	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	2,200	2,200	--	--
100-H-SEDIMENT	Calcium	7440-70-2	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	3.39E+06	3.78E+06	--	--
100-H-SEDIMENT	Chloride	16887-00-6	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	307	307	--	--
100-H-SEDIMENT	Cumulative % retained on No. 100 screen	RET#100	%	12/27/2006	12/27/2006	1	1	100	--	--	77	77	--	--
100-H-SEDIMENT	Cumulative % retained on No. 16 screen	RET#16	%	12/27/2006	12/27/2006	1	1	100	--	--	1.8	1.8	--	--
100-H-SEDIMENT	Cumulative % retained on No. 200 screen	RET#200	%	12/27/2006	12/27/2006	1	1	100	--	--	91	91	--	--
100-H-SEDIMENT	Cumulative % retained on No. 30 screen	RET#30	%	12/27/2006	12/27/2006	1	1	100	--	--	6.9	6.9	--	--
100-H-SEDIMENT	Cumulative % retained on No. 50 screen	RET#50	%	12/27/2006	12/27/2006	1	1	100	--	--	43	43	--	--
100-H-SEDIMENT	Cumulative % retained on No. 8 screen	RET#8	%	12/27/2006	12/27/2006	1	1	100	--	--	1.5	1.5	--	--
100-H-SEDIMENT	Dominant Substrate Class [1-4]	AQ_BASKET_DOM_S	class	8/14/2007	8/14/2007	1	1	100	--	--	2.0	2.0	--	--
100-H-SEDIMENT	Fluoride	16984-48-8	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	376	376	--	--
100-H-SEDIMENT	Fraction Coarse Sand	COARSE_SAND	%	12/27/2006	12/27/2006	1	1	100	--	--	5.1	5.1	--	--
100-H-SEDIMENT	Fraction Coarse Silt/Silt/Clay [less than 0.074 mm]	COARSE_SILT_CLA	%	12/27/2006	12/27/2006	1	1	100	--	--	9.2	9.2	--	--
100-H-SEDIMENT	Fraction Fine Sand	FINE_SAND	%	12/27/2006	12/27/2006	1	1	100	--	--	34	34	--	--
100-H-SEDIMENT	Fraction Granules [greater than 2.38 mm]	GRANULE	%	12/27/2006	12/27/2006	1	1	100	--	--	1.5	1.5	--	--
100-H-SEDIMENT	Fraction Medium Sand	MEDIUM_SAND	%	12/27/2006	12/27/2006	1	1	100	--	--	36	36	--	--
100-H-SEDIMENT	Fraction Total Sand	TOTAL_SAND	%	12/27/2006	12/27/2006	1	1	100	--	--	89	89	--	--
100-H-SEDIMENT	Fraction Very Coarse Sand	VERY_COARSE_SAN	%	12/27/2006	12/27/2006	1	1	100	--	--	0.30	0.30	--	--
100-H-SEDIMENT	Fraction Very Fine Sand	VERY_FINE_SAND	%	12/27/2006	12/27/2006	1	1	100	--	--	14	14	--	--
100-H-SEDIMENT	Gross alpha	12587-46-1	pCi/g	11/13/1992	11/22/1992	2	1	50	2.6	2.6	27	27	--	--
100-H-SEDIMENT	Gross beta	12587-47-2	pCi/g	11/13/1992	11/22/1992	3	3	100	--	--	14	27	--	--
100-H-SEDIMENT	Hexachlorobutadiene	87-68-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Hexachlorocyclopentadiene	77-47-4	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Hexavalent Chromium	18540-29-9	µg/kg	12/27/2006	12/27/2006	1	0	0	500	500	--	--	--	--

Table L-64. Summary of Sediment Analytes Without a Lower Threshold Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	Hyalella Growth	HYAL_GROWTH	mg	12/27/2006	12/27/2006	1	1	100	--	--	0.070	0.070	--	--
100-H-SEDIMENT	Hyalella Survival	HYAL_SURV	%	12/27/2006	12/27/2006	1	1	100	--	--	2.0	2.0	--	--
100-H-SEDIMENT	Iron-59	14596-12-4	pCi/g	11/13/1992	11/22/1992	2	0	0	0.40	0.50	--	--	--	--
100-H-SEDIMENT	Isophorone	78-59-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Lithium	7439-93-2	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	5,700	5,700	--	--
100-H-SEDIMENT	Macrophyte Abundance Class [1-4]	AQ_BASKET_MACRO	class	8/14/2007	8/14/2007	1	1	100	--	--	1.0	1.0	--	--
100-H-SEDIMENT	Magnesium	7439-95-4	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	3.45E+06	4.45E+06	--	--
100-H-SEDIMENT	Nitrobenzene	98-95-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Nitrogen in ammonia	NH3-N	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	3,130	3,130	--	--
100-H-SEDIMENT	Nitrogen in Nitrate	NO3-N	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	416	416	--	--
100-H-SEDIMENT	Nitrogen in Nitrite	NO2-N	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	41	41	--	--
100-H-SEDIMENT	Nitrogen, Kjeldahl total	N-KJELDAHL	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	125,000	125,000	--	--
100-H-SEDIMENT	n-Nitrosodi-n-dipropylamine	621-64-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	n-Nitrosodiphenylamine	86-30-6	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	--	--
100-H-SEDIMENT	Pakchoi shoot weight, dry	PAK_SHOOT_WT_DR	g	12/27/2006	12/27/2006	1	1	100	--	--	0.13	0.13	--	--
100-H-SEDIMENT	Pakchoi shoot weight, wet	PAK_SHOOT_WT_WE	g	12/27/2006	12/27/2006	1	1	100	--	--	2.6	2.6	--	--
100-H-SEDIMENT	Percent moisture (wet sample)	%MOISTURE	%	12/27/2006	12/27/2006	1	1	100	--	--	12	12	--	--
100-H-SEDIMENT	pH Measurement	PH	unitless	12/27/2006	12/27/2006	1	1	100	--	--	8.5	8.5	--	--
100-H-SEDIMENT	Potassium	7440-09-7	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	687,000	1.42E+06	--	--
100-H-SEDIMENT	Ruthenium-106	13967-48-1	pCi/g	11/13/1992	12/27/2006	4	0	0	-4.24E-02	0.60	--	--	--	--
100-H-SEDIMENT	Silicon	7440-21-3	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	590,000	590,000	--	--
100-H-SEDIMENT	Sodium	7440-23-5	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	95,600	249,000	--	--
100-H-SEDIMENT	Strontium	7440-24-6	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	18,300	18,300	--	--
100-H-SEDIMENT	Sub Dominant Substrate Class [1-4]	AQ_BASKET_SUB_D	class	8/14/2007	8/14/2007	1	1	100	--	--	2.0	2.0	--	--
100-H-SEDIMENT	Substrate Embeddedness Class [1-4]	AQ_BASKET_EMBED	class	8/14/2007	8/14/2007	1	1	100	--	--	3.0	3.0	--	--
100-H-SEDIMENT	Sulfate	14808-79-8	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	1,540	1,540	--	--
100-H-SEDIMENT	Total organic carbon	TOC	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	1.42E+06	1.42E+06	--	--
100-H-SEDIMENT	Total petroleum hydrocarbons - gasoline range	TPHGASOLINE	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	99	99	--	--

Table L-65. Summary of Sediment Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	1,2,4-Trichlorobenzene	120-82-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	9,600	--
100-D-SEDIMENT	2,4,5-Trichlorophenol	95-95-4	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	10	--
100-D-SEDIMENT	2,4,6-Trichlorophenol	88-06-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	10	--
100-D-SEDIMENT	2-Chlorophenol	95-57-8	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	55	--
100-D-SEDIMENT	2-Methylnaphthalene	91-57-6	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	470	--
100-D-SEDIMENT	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	12	--
100-D-SEDIMENT	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	260	--
100-D-SEDIMENT	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	310	--
100-D-SEDIMENT	Acenaphthene	83-32-9	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	1,060	--
100-D-SEDIMENT	Acenaphthylene	208-96-8	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	470	--
100-D-SEDIMENT	Aldrin	309-00-2	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	2.0	--
100-D-SEDIMENT	Alpha-BHC	319-84-6	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	6.0	--
100-D-SEDIMENT	Alpha-Chlordane	5103-71-9	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	0.030	--
100-D-SEDIMENT	Antimony-125	14234-35-6	pCi/g	2/12/2006	2/21/2006	6	0	0	0.027	0.061	--	--	7,030	--
100-D-SEDIMENT	Aroclor-1016	12674-11-2	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	7.0	--
100-D-SEDIMENT	Aroclor-1248	12672-29-6	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	30	--
100-D-SEDIMENT	Aroclor-1254	11097-69-1	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	60	--
100-D-SEDIMENT	Aroclor-1260	11096-82-5	µg/kg	2/12/2006	2/21/2006	6	0	0	14	42	--	--	5.0	--
100-D-SEDIMENT	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	7.2	--
100-D-SEDIMENT	Butylbenzylphthalate	85-68-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	260	--
100-D-SEDIMENT	Carbazole	86-74-8	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	900	--
100-D-SEDIMENT	Cerium-144	14762-78-8	pCi/g	11/24/1992	11/24/1992	1	0	0	0.050	0.050	--	--	2,900	--
100-D-SEDIMENT	Cesium-134	13967-70-9	pCi/g	11/17/1992	2/21/2006	11	0	0	0.0060	0.060	--	--	1,480	--
100-D-SEDIMENT	Chromium-51	14392-02-0	pCi/g	11/17/1992	11/24/1992	5	0	0	0.014	2.0	--	--	106,000	--
100-D-SEDIMENT	Cobalt-58	13981-38-9	pCi/g	11/24/1992	11/24/1992	1	0	0	0.014	0.014	--	--	3,800	--
100-D-SEDIMENT	Delta-BHC	319-86-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	12	--
100-D-SEDIMENT	Dibenzofuran	132-64-9	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	200	--
100-D-SEDIMENT	Dieldrin	60-57-1	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	4.9	--
100-D-SEDIMENT	Diethylphthalate	84-66-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	530	--
100-D-SEDIMENT	Dimethyl phthalate	131-11-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	46	--
100-D-SEDIMENT	Di-n-butylphthalate	84-74-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	380	--
100-D-SEDIMENT	Di-n-octylphthalate	117-84-0	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	39	--
100-D-SEDIMENT	Endosulfan I	959-98-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	5.0	--
100-D-SEDIMENT	Endosulfan II	33213-65-9	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	5.0	--
100-D-SEDIMENT	Endosulfan sulfate	1031-07-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	5.0	--
100-D-SEDIMENT	Endrin	72-20-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	2.2	--
100-D-SEDIMENT	Endrin aldehyde	7421-93-4	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	2.2	--
100-D-SEDIMENT	Endrin ketone	53494-70-5	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	8,500	--
100-D-SEDIMENT	Fluorene	86-73-7	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	1,000	--
100-D-SEDIMENT	Gamma-BHC (Lindane)	58-89-9	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	2.4	--
100-D-SEDIMENT	gamma-Chlordane	5566-34-7	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	0.030	--
100-D-SEDIMENT	Heptachlor	76-44-8	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	68	--
100-D-SEDIMENT	Heptachlor epoxide	1024-57-3	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	2.5	--
100-D-SEDIMENT	Hexachlorobenzene	118-74-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	20	--
100-D-SEDIMENT	Hexachloroethane	67-72-1	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	1,000	--
100-D-SEDIMENT	Methoxychlor	72-43-5	µg/kg	2/12/2006	2/21/2006	6	0	0	1.4	1.7	--	--	19	--
100-D-SEDIMENT	Naphthalene	91-20-3	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	500	--
100-D-SEDIMENT	Pentachlorophenol	87-86-5	µg/kg	2/12/2006	2/21/2006	6	0	0	870	1,000	--	--	1,200	--
100-D-SEDIMENT	Phenanthrene	85-01-8	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	6,100	--
100-D-SEDIMENT	Phenol	108-95-2	µg/kg	2/12/2006	2/21/2006	6	0	0	350	420	--	--	120	--
100-D-SEDIMENT	Radium-223	15623-45-7	pCi/g	11/24/1992	11/24/1992	1	0	0	0.033	0.033	--	--	88	--
100-D-SEDIMENT	Selenium	7782-49-2	µg/kg	11/17/1992	9/27/2007	17	0	0	370	3,800	--	--	11,000	--

Table L-65. Summary of Sediment Analytes That Were Not Detected for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	Total petroleum hydrocarbons	TPH	µg/kg	2/12/2006	2/21/2006	6	0	0	138,000	168,000	--	--	17,000	--
100-D-SEDIMENT	Toxaphene	8001-35-2	µg/kg	2/12/2006	2/21/2006	6	0	0	14	17	--	--	0.10	--
100-D-SEDIMENT	Uranium	7440-61-1	µg/kg	2/12/2006	9/27/2007	12	0	0	890	4,300	--	--	100,000	--
100-D-SEDIMENT	Zinc-65	13982-39-3	pCi/g	11/17/1992	11/24/1992	5	0	0	0.10	0.20	--	--	1,430	--

Table L-66. Summary of Sediment Analytes That Were Not Detected for the Horn Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-HORN-AREA-SEDIMENT	Antimony	7440-36-0	µg/kg	11/19/1992	11/23/1992	2	0	0	4,200	7,500	--	--	400	--
100-HORN-AREA-SEDIMENT	Chromium-51	14392-02-0	pCi/g	11/19/1992	11/23/1992	2	0	0	3.0	4.0	--	--	106,000	--
100-HORN-AREA-SEDIMENT	Europium-154	15585-10-1	pCi/g	11/19/1992	11/23/1992	2	0	0	0.30	0.30	--	--	2,570	--
100-HORN-AREA-SEDIMENT	Plutonium-238	13981-16-3	pCi/g	11/17/1992	11/23/1992	3	0	0	-6.00E-03	0.0050	--	--	5,730	--
100-HORN-AREA-SEDIMENT	Selenium	7782-49-2	µg/kg	11/19/1992	11/23/1992	2	0	0	860	1,200	--	--	11,000	--
100-HORN-AREA-SEDIMENT	Silver	7440-22-4	µg/kg	11/19/1992	11/23/1992	2	0	0	1,100	1,400	--	--	570	--
100-HORN-AREA-SEDIMENT	Uranium-235	15117-96-1	pCi/g	11/23/1992	11/23/1992	1	0	0	0.15	0.15	--	--	3,730	--
100-HORN-AREA-SEDIMENT	Zinc-65	13982-39-3	pCi/g	11/19/1992	11/23/1992	2	0	0	0.20	0.20	--	--	1,430	--

Table L-67. Summary of Sediment Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	1,2,4-Trichlorobenzene	120-82-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	9,600	--
100-H-SEDIMENT	2,4,5-Trichlorophenol	95-95-4	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	10	--
100-H-SEDIMENT	2,4,6-Trichlorophenol	88-06-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	10	--
100-H-SEDIMENT	2-Chlorophenol	95-57-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	55	--
100-H-SEDIMENT	2-Methylnaphthalene	91-57-6	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	470	--
100-H-SEDIMENT	2-Methylphenol (cresol, o-)	95-48-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	12	--
100-H-SEDIMENT	3+4 Methylphenol (cresol, m+p)	65794-96-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	260	--
100-H-SEDIMENT	4,4'-DDD (Dichlorodiphenyldichloroethane)	72-54-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	310	--
100-H-SEDIMENT	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	100	--
100-H-SEDIMENT	Acenaphthene	83-32-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	1,060	--
100-H-SEDIMENT	Acenaphthylene	208-96-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	470	--
100-H-SEDIMENT	Aldrin	309-00-2	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	2.0	--
100-H-SEDIMENT	Alpha-BHC	319-84-6	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	6.0	--
100-H-SEDIMENT	Alpha-Chlordane	5103-71-9	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	0.030	--
100-H-SEDIMENT	Anthracene	120-12-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	1,200	--
100-H-SEDIMENT	Antimony	7440-36-0	µg/kg	11/13/1992	12/27/2006	3	0	0	790	4,400	--	--	400	--
100-H-SEDIMENT	Antimony-125	14234-35-6	pCi/g	10/27/2003	12/27/2006	2	0	0	0.0081	0.038	--	--	7,030	--
100-H-SEDIMENT	Aroclor-1016	12674-11-2	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	7.0	--
100-H-SEDIMENT	Aroclor-1248	12672-29-6	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	30	--
100-H-SEDIMENT	Aroclor-1254	11097-69-1	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	60	--
100-H-SEDIMENT	Aroclor-1260	11096-82-5	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	5.0	--
100-H-SEDIMENT	Benzo(a)anthracene	56-55-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	4,260	--
100-H-SEDIMENT	Benzo(a)pyrene	50-32-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	3,300	--
100-H-SEDIMENT	Benzo(b)fluoranthene	205-99-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	11,000	--
100-H-SEDIMENT	Benzo(ghi)perylene	191-24-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	4,020	--
100-H-SEDIMENT	Benzo(k)fluoranthene	207-08-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	11,000	--
100-H-SEDIMENT	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	7.2	--
100-H-SEDIMENT	Butylbenzylphthalate	85-68-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	260	--
100-H-SEDIMENT	Carbazole	86-74-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	900	--
100-H-SEDIMENT	Cesium-134	13967-70-9	pCi/g	11/13/1992	12/27/2006	4	0	0	0.025	0.090	--	--	1,480	--
100-H-SEDIMENT	Chromium-51	14392-02-0	pCi/g	11/13/1992	11/22/1992	2	0	0	3.0	3.0	--	--	106,000	--
100-H-SEDIMENT	Chrysene	218-01-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	5,940	--
100-H-SEDIMENT	Delta-BHC	319-86-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	12	--
100-H-SEDIMENT	Dibenz[a,h]anthracene	53-70-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	800	--
100-H-SEDIMENT	Dibenzofuran	132-64-9	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	200	--
100-H-SEDIMENT	Dieldrin	60-57-1	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	4.9	--
100-H-SEDIMENT	Diethylphthalate	84-66-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	530	--
100-H-SEDIMENT	Dimethyl phthalate	131-11-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	46	--
100-H-SEDIMENT	Di-n-octylphthalate	117-84-0	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	39	--
100-H-SEDIMENT	Endosulfan I	959-98-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	5.0	--
100-H-SEDIMENT	Endosulfan II	33213-65-9	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	5.0	--
100-H-SEDIMENT	Endosulfan sulfate	1031-07-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	5.0	--
100-H-SEDIMENT	Endrin	72-20-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	2.2	--
100-H-SEDIMENT	Endrin aldehyde	7421-93-4	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	2.2	--
100-H-SEDIMENT	Endrin ketone	53494-70-5	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	8,500	--
100-H-SEDIMENT	Europium-155	14391-16-3	pCi/g	10/27/2003	12/27/2006	2	0	0	0.070	0.072	--	--	31,600	--
100-H-SEDIMENT	Fluoranthene	206-44-0	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	11,000	--
100-H-SEDIMENT	Fluorene	86-73-7	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	1,000	--
100-H-SEDIMENT	Gamma-BHC (Lindane)	58-89-9	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	2.4	--
100-H-SEDIMENT	gamma-Chlordane	5566-34-7	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	0.030	--
100-H-SEDIMENT	Heptachlor	76-44-8	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	68	--
100-H-SEDIMENT	Heptachlor epoxide	1024-57-3	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	2.5	--

Table L-67. Summary of Sediment Analytes That Were Not Detected for the 100-H Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	Hexachlorobenzene	118-74-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	20	--
100-H-SEDIMENT	Hexachloroethane	67-72-1	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	1,000	--
100-H-SEDIMENT	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	4,120	--
100-H-SEDIMENT	Methoxychlor	72-43-5	µg/kg	12/27/2006	12/27/2006	1	0	0	1.5	1.5	--	--	19	--
100-H-SEDIMENT	Molybdenum	7439-98-7	µg/kg	12/27/2006	12/27/2006	1	0	0	510	510	--	--	250,000	--
100-H-SEDIMENT	Naphthalene	91-20-3	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	500	--
100-H-SEDIMENT	Pentachlorophenol	87-86-5	µg/kg	12/27/2006	12/27/2006	1	0	0	930	930	--	--	1,200	--
100-H-SEDIMENT	Phenanthrene	85-01-8	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	6,100	--
100-H-SEDIMENT	Phenol	108-95-2	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	120	--
100-H-SEDIMENT	Pyrene	129-00-0	µg/kg	12/27/2006	12/27/2006	1	0	0	370	370	--	--	8,800	--
100-H-SEDIMENT	Silver	7440-22-4	µg/kg	11/13/1992	12/27/2006	3	0	0	160	770	--	--	570	--
100-H-SEDIMENT	Thallium	7440-28-0	µg/kg	11/13/1992	12/27/2006	3	0	0	940	1,800	--	--	2,600	--
100-H-SEDIMENT	Total petroleum hydrocarbons	TPH	µg/kg	12/27/2006	12/27/2006	1	0	0	147,000	147,000	--	--	17,000	--
100-H-SEDIMENT	Toxaphene	8001-35-2	µg/kg	12/27/2006	12/27/2006	1	0	0	15	15	--	--	0.10	--
100-H-SEDIMENT	Uranium	7440-61-1	µg/kg	12/27/2006	12/27/2006	1	0	0	4,300	4,300	--	--	100,000	--
100-H-SEDIMENT	Zinc-65	13982-39-3	pCi/g	11/13/1992	11/22/1992	2	0	0	0.20	0.20	--	--	1,430	--

Table L-68. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	2/12/2006	2/21/2006	6	1	17	1.4	1.7	3.5	3.5	21	--
100-D-SEDIMENT	4,4'-DDT (Dichlorodiphenyltrichloroethane)	50-29-3	µg/kg	2/12/2006	2/21/2006	6	1	17	1.4	1.7	1.3	1.3	100	--
100-D-SEDIMENT	Aluminum	7429-90-5	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	2.32E+06	8.14E+06	1.40E+07	--
100-D-SEDIMENT	Americium-241	14596-10-2	pCi/g	11/19/1992	2/21/2006	11	1	9.1	-9.00E-03	0.25	0.24	0.24	5,150	--
100-D-SEDIMENT	Anthracene	120-12-7	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	28	28	1,200	--
100-D-SEDIMENT	Arsenic	7440-38-2	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	1,200	8,900	14,000	--
100-D-SEDIMENT	Barium	7440-39-3	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	40,200	104,000	300,000	--
100-D-SEDIMENT	Benzo(a)anthracene	56-55-3	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	370	370	4,260	--
100-D-SEDIMENT	Benzo(a)pyrene	50-32-8	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	310	310	3,300	--
100-D-SEDIMENT	Benzo(b)fluoranthene	205-99-2	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	260	260	11,000	--
100-D-SEDIMENT	Benzo(ghi)perylene	191-24-2	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	100	100	4,020	--
100-D-SEDIMENT	Benzo(k)fluoranthene	207-08-9	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	360	360	11,000	--
100-D-SEDIMENT	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	2/12/2006	2/21/2006	6	6	100	--	--	32	58	500	--
100-D-SEDIMENT	Cadmium	7440-43-9	µg/kg	11/17/1992	9/27/2007	17	7	41	80	1,100	70	590	2,100	--
100-D-SEDIMENT	Calculated Total Uranium	calc_tot_U	µg/kg	11/19/1992	2/21/2006	10	10	100	--	--	1,032	2,014	100,000	--
100-D-SEDIMENT	Cesium-137	10045-97-3	pCi/g	11/17/1992	2/21/2006	11	9	82	0.014	0.017	0.10	0.62	3,120	--
100-D-SEDIMENT	Chromium	7440-47-3	µg/kg	11/17/1992	9/27/2007	18	18	100	--	--	3,300	47,000	72,000	--
100-D-SEDIMENT	Chrysene	218-01-9	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	450	450	5,940	--
100-D-SEDIMENT	Cobalt	7440-48-4	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	3,700	8,800	50,000	--
100-D-SEDIMENT	Cobalt-60	10198-40-0	pCi/g	11/17/1992	2/21/2006	11	5	45	0.015	0.060	0.029	0.25	1,460	--
100-D-SEDIMENT	Copper	7440-50-8	µg/kg	11/17/1992	9/27/2007	18	18	100	--	--	10,200	27,500	400,000	--
100-D-SEDIMENT	Dibenz[a,h]anthracene	53-70-3	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	62	62	800	--
100-D-SEDIMENT	Europium-152	14683-23-9	pCi/g	11/17/1992	2/21/2006	11	5	45	0.035	0.10	0.11	0.35	3,040	--
100-D-SEDIMENT	Europium-154	15585-10-1	pCi/g	11/19/1992	2/21/2006	12	3	25	0.038	0.20	0.032	0.090	2,570	--
100-D-SEDIMENT	Europium-155	14391-16-3	pCi/g	11/24/1992	2/21/2006	7	1	14	0.047	0.17	0.044	0.044	31,600	--
100-D-SEDIMENT	Fluoranthene	206-44-0	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	190	190	11,000	--
100-D-SEDIMENT	Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	120	120	4,120	--
100-D-SEDIMENT	Lead	7439-92-1	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	1,800	33,500	360,000	--
100-D-SEDIMENT	Manganese	7439-96-5	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	168,000	418,000	460,000	--
100-D-SEDIMENT	Mercury	7439-97-6	µg/kg	11/17/1992	9/27/2007	17	1	5.9	10	70	30	30	660	--
100-D-SEDIMENT	Molybdenum	7439-98-7	µg/kg	2/12/2006	9/27/2007	12	11	92	440	440	230	880	250,000	--
100-D-SEDIMENT	Neptunium-237	13994-20-2	pCi/g	11/24/1992	11/24/1992	1	1	100	--	--	0.48	0.48	7,630	--
100-D-SEDIMENT	Nickel	7440-02-0	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	5,600	18,100	26,000	--
100-D-SEDIMENT	Plutonium-238	13981-16-3	pCi/g	11/19/1992	10/8/2003	7	3	43	-1.00E-01	0.0020	0.0031	0.0089	5,730	--
100-D-SEDIMENT	Plutonium-239/240	PU-239/240	pCi/g	11/19/1992	10/8/2003	7	3	43	0	0.013	0.0050	0.011	5,860	--
100-D-SEDIMENT	Potassium-40	13966-00-2	pCi/g	11/17/1992	2/21/2006	13	13	100	--	--	7.7	21	4,430	--
100-D-SEDIMENT	Pyrene	129-00-0	µg/kg	2/12/2006	2/21/2006	6	1	17	350	420	300	300	8,800	--
100-D-SEDIMENT	Radium-226	13982-63-3	pCi/g	11/17/1992	2/21/2006	11	11	100	--	--	0.31	0.90	101	--
100-D-SEDIMENT	Radium-228	15262-20-1	pCi/g	11/24/1992	2/21/2006	7	7	100	--	--	0.47	1.3	88	--
100-D-SEDIMENT	Strontium-90	10098-97-2	pCi/g	11/17/1992	2/21/2006	14	4	29	-4.70E-01	0.17	0.0040	0.40	582	--
100-D-SEDIMENT	Technetium-99	14133-76-7	pCi/g	9/18/1995	9/18/1995	1	1	100	--	--	0.38	0.38	42,200	--
100-D-SEDIMENT	Thallium	7440-28-0	µg/kg	11/17/1992	9/27/2007	17	4	24	260	2,400	390	2,400	2,600	--
100-D-SEDIMENT	Thorium-228	14274-82-9	pCi/g	11/17/1992	2/21/2006	11	8	73	0.22	1.1	0.53	1.9	805	--
100-D-SEDIMENT	Thorium-230	14269-63-7	pCi/g	2/12/2006	2/21/2006	6	1	17	-6.20E-02	0.37	0.84	0.84	10,400	--
100-D-SEDIMENT	Thorium-232	TH-232	pCi/g	11/17/1992	2/21/2006	11	8	73	0.22	1.1	0.58	1.2	1,300	--
100-D-SEDIMENT	Thorium-234	15065-10-8	pCi/g	11/24/1992	11/24/1992	1	1	100	--	--	0.69	0.69	4,330	--
100-D-SEDIMENT	Tin	7440-31-5	µg/kg	2/12/2006	9/27/2007	12	6	50	1,100	1,900	960	2,400	239,000	--
100-D-SEDIMENT	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/kg	2/12/2006	2/21/2006	6	5	83	4,600	4,600	1,800	18,000	340,000	--
100-D-SEDIMENT	Uranium [radionuclide]	U_rad	pCi/g	11/19/1992	9/18/1995	2	2	100	--	--	1.1	1.2	2,490	--
100-D-SEDIMENT	Uranium-233/234	13966-29-5	pCi/g	11/19/1992	2/21/2006	12	12	100	--	--	0.29	0.59	5,270	--
100-D-SEDIMENT	Uranium-235	15117-96-1	pCi/g	11/17/1992	2/21/2006	8	1	13	0	0.087	0.017	0.017	3,730	--
100-D-SEDIMENT	Uranium-238	U-238	pCi/g	11/17/1992	2/21/2006	13	13	100	--	--	0.34	0.68	2,490	--

Table L-68. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	Vanadium	7440-62-2	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	23,600	53,800	90,000	--
100-D-SEDIMENT	Zinc	7440-66-6	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	34,300	221,000	3.20E+06	--

Table L-69. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the Horn Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-HORN-AREA-SEDIMENT	Aluminum	7429-90-5	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	7.40E+06	8.03E+06	1.40E+07	--
100-HORN-AREA-SEDIMENT	Americium-241	14596-10-2	pCi/g	11/17/1992	11/23/1992	3	1	33	0.012	0.013	0.0037	0.0037	5,150	--
100-HORN-AREA-SEDIMENT	Arsenic	7440-38-2	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	1,900	6,100	14,000	--
100-HORN-AREA-SEDIMENT	Barium	7440-39-3	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	55,200	73,200	300,000	--
100-HORN-AREA-SEDIMENT	Cadmium	7440-43-9	µg/kg	11/19/1992	11/23/1992	2	1	50	3,400	3,400	1,600	1,600	2,100	--
100-HORN-AREA-SEDIMENT	Calculated Total Uranium	calc_tot_U	µg/kg	11/17/1992	11/23/1992	3	3	100	--	--	2,068	5,990	100,000	--
100-HORN-AREA-SEDIMENT	Cesium-134	13967-70-9	pCi/g	11/19/1992	11/23/1992	2	1	50	0.070	0.070	0.089	0.089	1,480	--
100-HORN-AREA-SEDIMENT	Cesium-137	10045-97-3	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.56	0.91	3,120	--
100-HORN-AREA-SEDIMENT	Chromium	7440-47-3	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	14,100	22,300	72,000	--
100-HORN-AREA-SEDIMENT	Cobalt	7440-48-4	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	5,700	7,700	50,000	--
100-HORN-AREA-SEDIMENT	Cobalt-60	10198-40-0	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.10	0.33	1,460	--
100-HORN-AREA-SEDIMENT	Copper	7440-50-8	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	23,100	23,800	400,000	--
100-HORN-AREA-SEDIMENT	Europium-152	14683-23-9	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.41	0.79	3,040	--
100-HORN-AREA-SEDIMENT	Iron	7439-89-6	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	1.39E+07	1.67E+07	2.00E+07	--
100-HORN-AREA-SEDIMENT	Lead	7439-92-1	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	32,000	59,800	360,000	--
100-HORN-AREA-SEDIMENT	Manganese	7439-96-5	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	181,000	202,000	460,000	--
100-HORN-AREA-SEDIMENT	Mercury	7439-97-6	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	70	100	660	--
100-HORN-AREA-SEDIMENT	Nickel	7440-02-0	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	11,200	14,300	26,000	--
100-HORN-AREA-SEDIMENT	Plutonium-239/240	PU-239/240	pCi/g	11/17/1992	11/23/1992	3	1	33	0.0030	0.014	0.014	0.014	5,860	--
100-HORN-AREA-SEDIMENT	Potassium-40	13966-00-2	pCi/g	11/17/1992	11/23/1992	3	3	100	--	--	8.4	14	4,430	--
100-HORN-AREA-SEDIMENT	Radium-226	13982-63-3	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.55	0.98	101	--
100-HORN-AREA-SEDIMENT	Strontium-90	10098-97-2	pCi/g	11/17/1992	11/23/1992	3	1	33	-1.00E-01	-1.00E-03	0.0070	0.0070	582	--
100-HORN-AREA-SEDIMENT	Thallium	7440-28-0	µg/kg	11/19/1992	11/23/1992	2	1	50	910	910	820	820	2,600	--
100-HORN-AREA-SEDIMENT	Thorium-228	14274-82-9	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.84	1.5	805	--
100-HORN-AREA-SEDIMENT	Thorium-232	TH-232	pCi/g	11/19/1992	11/23/1992	2	2	100	--	--	0.71	1.2	1,300	--
100-HORN-AREA-SEDIMENT	Uranium [radionuclide]	U_rad	pCi/g	11/17/1992	11/17/1992	1	1	100	--	--	1.5	1.5	2,490	--
100-HORN-AREA-SEDIMENT	Uranium-233/234	13966-29-5	pCi/g	11/17/1992	11/23/1992	4	4	100	--	--	0.65	2.6	5,270	--
100-HORN-AREA-SEDIMENT	Uranium-238	U-238	pCi/g	11/17/1992	11/23/1992	3	3	100	--	--	0.69	0.98	2,490	--
100-HORN-AREA-SEDIMENT	Vanadium	7440-62-2	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	35,400	35,900	90,000	--
100-HORN-AREA-SEDIMENT	Zinc	7440-66-6	µg/kg	11/19/1992	11/23/1992	2	2	100	--	--	294,000	377,000	3.20E+06	--

Table L-70. Summary of Sediment Analytes With Concentrations That Do Not Exceed a Lower Threshold Ecological Screening Level for the 100-H Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	4,4'-DDE (Dichlorodiphenyldichloroethylene)	72-55-9	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	3.5	3.5	21	--
100-H-SEDIMENT	Aluminum	7429-90-5	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	5.22E+06	7.64E+06	1.40E+07	--
100-H-SEDIMENT	Americium-241	14596-10-2	pCi/g	11/13/1992	12/27/2006	4	1	25	-2.00E-03	0.028	0.0030	0.0030	5,150	--
100-H-SEDIMENT	Arsenic	7440-38-2	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	2,400	4,500	14,000	--
100-H-SEDIMENT	Barium	7440-39-3	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	54,300	76,500	300,000	--
100-H-SEDIMENT	Bis(2-ethylhexyl) phthalate	117-81-7	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	76	76	500	--
100-H-SEDIMENT	Cadmium	7440-43-9	µg/kg	11/13/1992	12/27/2006	3	1	33	100	260	2,000	2,000	2,100	--
100-H-SEDIMENT	Calculated Total Uranium	calc_tot_U	µg/kg	11/13/1992	12/27/2006	5	5	100	--	--	871	3,611	100,000	--
100-H-SEDIMENT	Cesium-137	10045-97-3	pCi/g	11/13/1992	12/27/2006	4	3	75	0.020	0.020	0.15	0.79	3,120	--
100-H-SEDIMENT	Chromium	7440-47-3	µg/kg	11/13/1992	12/27/2006	4	3	75	100	100	7,400	22,800	72,000	--
100-H-SEDIMENT	Cobalt	7440-48-4	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	6,200	8,500	50,000	--
100-H-SEDIMENT	Cobalt-60	10198-40-0	pCi/g	11/13/1992	12/27/2006	4	1	25	0.012	0.090	0.38	0.38	1,460	--
100-H-SEDIMENT	Copper	7440-50-8	µg/kg	11/13/1992	12/27/2006	4	4	100	--	--	4,600	32,600	400,000	--
100-H-SEDIMENT	Di-n-butylphthalate	84-74-2	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	31	31	380	--
100-H-SEDIMENT	Europium-152	14683-23-9	pCi/g	11/13/1992	12/27/2006	4	2	50	0.019	0.045	0.47	0.56	3,040	--
100-H-SEDIMENT	Europium-154	15585-10-1	pCi/g	11/13/1992	12/27/2006	5	1	20	0.022	0.20	0.25	0.25	2,570	--
100-H-SEDIMENT	Iron	7439-89-6	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	1.35E+07	1.96E+07	2.00E+07	--
100-H-SEDIMENT	Lead	7439-92-1	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	5,200	35,700	360,000	--
100-H-SEDIMENT	Manganese	7439-96-5	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	193,000	345,000	460,000	--
100-H-SEDIMENT	Mercury	7439-97-6	µg/kg	11/13/1992	12/27/2006	3	1	33	20	60	80	80	660	--
100-H-SEDIMENT	Nickel	7440-02-0	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	8,000	14,500	26,000	--
100-H-SEDIMENT	Plutonium-238	13981-16-3	pCi/g	11/13/1992	10/9/2003	3	1	33	-1.60E-02	9.00E-04	0.13	0.13	5,730	--
100-H-SEDIMENT	Plutonium-239/240	PU-239/240	pCi/g	11/13/1992	10/9/2003	3	2	67	0.0020	0.0020	0.013	0.036	5,860	--
100-H-SEDIMENT	Potassium-40	13966-00-2	pCi/g	11/13/1992	12/27/2006	5	5	100	--	--	14	16	4,430	--
100-H-SEDIMENT	Radium-226	13982-63-3	pCi/g	11/13/1992	12/27/2006	3	3	100	--	--	0.48	1.0	101	--
100-H-SEDIMENT	Radium-228	15262-20-1	pCi/g	12/27/2006	12/27/2006	1	1	100	--	--	0.73	0.73	88	--
100-H-SEDIMENT	Selenium	7782-49-2	µg/kg	11/13/1992	12/27/2006	3	1	33	970	1,400	830	830	11,000	--
100-H-SEDIMENT	Strontium-90	10098-97-2	pCi/g	11/13/1992	12/27/2006	6	2	33	-9.00E-03	0.050	0.062	0.11	582	--
100-H-SEDIMENT	Thorium-228	14274-82-9	pCi/g	11/13/1992	12/27/2006	3	3	100	--	--	0.62	1.9	805	--
100-H-SEDIMENT	Thorium-230	14269-63-7	pCi/g	12/27/2006	12/27/2006	1	1	100	--	--	0.46	0.46	10,400	--
100-H-SEDIMENT	Thorium-232	TH-232	pCi/g	11/13/1992	12/27/2006	3	3	100	--	--	0.52	1.8	1,300	--
100-H-SEDIMENT	Tin	7440-31-5	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	1,200	1,200	239,000	--
100-H-SEDIMENT	Total petroleum hydrocarbons - diesel range	TPHDIESEL	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	12,000	12,000	340,000	--
100-H-SEDIMENT	Uranium [radionuclide]	U_rad	pCi/g	11/13/1992	11/13/1992	1	1	100	--	--	2.1	2.1	2,490	--
100-H-SEDIMENT	Uranium-233/234	13966-29-5	pCi/g	11/13/1992	12/27/2006	6	6	100	--	--	0.34	1.2	5,270	--
100-H-SEDIMENT	Uranium-235	15117-96-1	pCi/g	11/13/1992	12/27/2006	5	2	40	0.024	0.084	0.010	0.047	3,730	--
100-H-SEDIMENT	Uranium-238	U-238	pCi/g	11/13/1992	12/27/2006	6	6	100	--	--	0.29	1.2	2,490	--
100-H-SEDIMENT	Vanadium	7440-62-2	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	28,900	46,500	90,000	--
100-H-SEDIMENT	Zinc	7440-66-6	µg/kg	11/13/1992	12/27/2006	3	3	100	--	--	39,400	397,000	3.20E+06	--

Table L-71. Summary of Sediment Analytes With Concentrations Greater than a Lower Threshold Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	Antimony	7440-36-0	µg/kg	11/17/1992	9/27/2007	17	1	5.9	410	4,100	6,800	6,800	400	1
100-D-SEDIMENT	Iron	7439-89-6	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	1.15E+07	2.33E+07	2.00E+07	2
100-D-SEDIMENT	Phosphorus	7723-14-0	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	569,000	1.26E+06	600,000	11
100-D-SEDIMENT	Silver	7440-22-4	µg/kg	11/17/1992	9/27/2007	17	2	12	70	1,000	810	5,300	570	2

Table L-72. Summary of Sediment Analytes With Concentrations Greater than an Upper Threshold Ecological Screening Level for the 100-D Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Upper Threshold sediment ESL	No. of Detects > Sediment ESL
100-D-SEDIMENT	Antimony	7440-36-0	µg/kg	11/17/1992	9/27/2007	17	1	5.9	410	4,100	6,800	6,800	600	1
100-D-SEDIMENT	Iron	7439-89-6	µg/kg	11/17/1992	9/27/2007	17	17	100	--	--	1.15E+07	2.33E+07	--	--
100-D-SEDIMENT	Phosphorus	7723-14-0	µg/kg	2/12/2006	9/27/2007	12	12	100	--	--	569,000	1.26E+06	2.00E+06	--
100-D-SEDIMENT	Silver	7440-22-4	µg/kg	11/17/1992	9/27/2007	17	2	12	70	1,000	810	5,300	1,700	1

Table L-73. Summary of Sediment Analytes With Concentrations Greater than a Lower Threshold Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Lower Threshold Sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	Phosphorus	7723-14-0	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	872,000	872,000	600,000	1

Table L-74. Summary of Sediment Analytes With Concentrations Greater than an Upper Threshold Ecological Screening Level for the 100-H Source Area

Site	Analyte	CAS#	Units	First Sample Date	Last Sample Date	Number of Results	Number of Detects	Frequency of Detects (%)	Min Non-Detect	Max Non-Detect	Min Detect	Max Detect	Upper Threshold sediment ESL	No. of Detects > Sediment ESL
100-H-SEDIMENT	Phosphorus	7723-14-0	µg/kg	12/27/2006	12/27/2006	1	1	100	--	--	872,000	872,000	2.00E+06	--